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12/14/1979

OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS

State of Oregon
Department of Environmental Quality

OREGON ENVIRONMENTAL QUALITY COMMISSION MEETING

December 14, 1979

Portland City Council Chambers
1220 Southwest Fifth Avenue
Portland, Oregon

A G E N D A

9:00 am CONSENT ITEMS

Items on the consent agenda are considered routine and generally will be acted on without public discussion. If a particular item is of specific interest to a Commission member, or sufficient public interest for public comment is indicated, the Chairman may hold any item over for discussion.

A. Minutes of the November 16, 1979 Commission meeting.

B. Monthly Activity Report for October 1979.

C. Tax Credit Applications.

9:10 am PUBLIC FORUM

D. Opportunity for any citizen to give a brief oral or written presentation on any environmental topic of concern. If appropriate, the Department will respond to issues in writing or at a subsequent meeting. The Commission reserves the right to discontinue this forum after a reasonable time if an unduly large number of speakers wish to appear.

10:00 am PUBLIC HEARINGS

The Commission may hear testimony on these items at the time designated but may reserve action until the work session later in the meeting.

E. Public hearing on renewal of Air Contaminant Discharge Permit for Portland General Electric's Bethel Combustion Turbine facility.

F. Public hearing to consider adoption of proposed open field burning regulations, OAR 340-26-005 through 26-030, and amendment to the Oregon State Implementation Plan.

OTHER ACTION ITEMS

The Commission may hear testimony on these items at the time designated but may reserve action until the work session later in the meeting.

G. Proposed adoption of rules governing sand filter sewage treatment systems (OAR 340-71-037(4)).

H. Proposed adoption of rules governing construction and use of waste disposal wells (OAR 340-44-005 through 44-045).

(MORE)

I. Variance Requests - Requests for a variance from air quality compliance schedules:

1. Kogap Manufacturing Company, Medford, veneer dryers (OAR 340-30-045(b))

2. Southwest Forest Industries, Medford, veneer dryers (OAR 340-30-045(b))

3. Medply, Medford, veneer dryers (OAR 340-30-045(b))

4. Medford Corporation, Medford, boilers (OAR 340-30-045(a))

~~J. Clarification of OAR 340-30-060 regarding establishing total plant site emission limits in the Medford/Ashland Air Quality Maintenance Area~~. POSTPONED

INFORMATIONAL ITEM

K. Review of tax credit program forms, instructions, Attorney General opinions and precedents.

WORK SESSION

The Commission reserves this time if needed to further consider proposed action on any item on the agenda.

Because of the uncertain time span involved, the Commission reserves the right to deal with any item at any time in the meeting except those items with a designated time certain. Anyone wishing to be heard on an agenda item that doesn't have a designated time on the agenda should be at the meeting when it commences to be certain they don't miss the agenda item.

The Commission will breakfast (7:30 am) at the Portland Motor Hotel, 1414 Southwest Sixth Avenue, Portland; and lunch at Portland City Hall.

Somers
Burgess
Bishop
Densmore
ch Richards

OREGON ENVIRONMENTAL QUALITY COMMISSION MEETING

13 items

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THESE MINUTES ARE NOT FINAL UNTIL APPROVED BY THE EQC

MINUTES OF THE ONE HUNDRED SIXTEENTH MEETING OF THE OREGON ENVIRONMENTAL QUALITY COMMISSION

December 14, 1979

On Friday, December 14, 1979, the one hundred sixteenth meeting of the Oregon Environmental Quality Commission convened in the Portland City Council Chambers, 1220 Southwest Fifth Avenue, Portland, Oregon.

Present were all Commission members: Mr. Joe B. Richards, Chairman; Mr. Albert H. Densmore, Vice Chairman; Mr. Ronald M. Somers; Mr. Fred J. Burgess; 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 Director's recommendations mentioned in these minutes, are on file in the Director's Office of the Department of Environmental Quality, 522 Southwest Fifth Avenue, Portland, Oregon.

BREAKFAST MEETING

Commissioner Densmore was the only member not present at the breakfast meeting.

1. Civil Penalties for Field Burning - The Commission asked for a report on how mitigation of civil penalties was determined; in how many cases is the penalty reduced; and is the reduction consistent from case to case. The staff responded to these questions during the breakfast meeting.

2. Transfer of funds from Field Burning Research & Development to Smoke Management - Mr. Scott Freeburn of the Department's Air Quality Division reported that the staff was proposing to transfer $130,000, as suggested by the Field Burning Advisory Committee, to increase Seed Council involvement in the daily operation of the program. Commissioner Burgess commented that it was not appropriate for DEQ to be responsible for research on solutions to the field burning problem. He said it was the industry's problem and they should perform the research and find the solution to their problem just as other industries are required to do.

3. Discussion of proposed rules for sand filters - At the Commission's request, Mr. Mark Ronayne of the Department's Subsurface Systems Section, briefly explained how sand filters work. He also reviewed the comparison of site criteria standards for conventional subsurface systems versus sand filter systems.

4. PGE Bethel Air Contaminant Discharge Permit - The Commission was informed that there would be several persons opposed to the operation of the plant appearing at the formal meeting.

5. Evans Products Air Contaminant Discharge Permit - Mr. John Borden, Mid Willamette Valley Region Manager, told the Commission that Friends of Benton County wanted permit issuance held up for a period of time. At the Commission's request, Mr. Borden responded to the comment that 95% of TCE leaving the plant was fugitive emissions and not controlled by permit. He said that the measured ambient levels were significantly below the levels considered to be dangerous to public health. Mr. Borden said his staff would be prepared at the January meeting to present a staff analysis of testimony and written comments before final issuance of the permit.

6. Date and location of future EQC meetings - The Commission stated they would prefer to hold meetings the third Friday of the month starting in January, if possible. They also proposed to hold meetings in Portland through March and requested a report at the next breakfast meeting on possible locations for the April, May, June and July meetings.

7. The Commission was informed that Associated Oregon Industries would requesting during the Public Forum section of the formal meeting that the Commission send a letter to the Water Policy Review Board supporting their recent policy decision to set minimum stream flows in the Willamette River for water quality and recreation.

8. The Commission requested staff to indicate at the January meeting what policy decisions were coming up for the EQC over the next six months.

9. The Commission also requested a report at the January meeting on the eligibility of propane conversions for tax credit certification.

FORMAL MEETING

All Commission members were present for the formal meeting.

AGENDA ITEM A - MINUTES OF THE NOVEMBER 16, 1979 EQC MEETING

AGENDA ITEM B - MONTHLY ACTIVITY REPORT FOR OCTOBER 1979

AGENDA ITEM C - TAX CREDIT APPLICATIONS

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess and carried unanimously that the following be approved as presented:

Minutes of the November 16, 1979 EQC meeting.

The Monthly Activity Report for October 1979.

Tax Credit Applications:

T-1101	Medford Corporation
T-1102	Publishers Paper Company
T-1103	Bickford Orchards, Inc.
T-1104	Rough & Ready Lumber Company
T-1111	Publishers Paper Company
T-1112	Publishers Paper Company
T-1113	Publishers Paper Company
T-1114	Lyle S. McAlexander
T-1119	Champion International Corp.
T-1125	Champion International Corp.
T-1130	Anodizing, Inc.
T-1133	Weyerhaeuser Company

AGENDA ITEM H - PROPOSED ADOPTION OF RULES GOVERNING CONSTRUCTION AND USE OF WASTE DISPOSAL WELLS (OAR 340-44-005 THROUGH 44-045)

In 1969 the Commission adopted a program for Central Oregon to phase out the use of waste disposal wells for sewage and other liquid waste by January 1, 1980. Through efforts of local governments many wells have been or will be eliminated.

Faced with an ending date for use of those wells, the Department held an informational hearing in September 1979 in order to seek alternatives for the use of the remaining wells. Based on this information and existing knowledge of the Department, amendments to the regulations were proposed which deleted the January 1 date, provided encouragement for eliminating existing wells, and prohibited new wells except under a control situation of a regional sewerage system.

Summation

1. Current regulations (OAR 340-44-045) prohibit the use of waste disposal wells after January 1, 1980.

2. This date cannot possibly be achieved and there will be waste disposal wells operating after January 1, 1980.

3. The proposed amendments to OAR 340-44 will delete the January 1, 1980 date but will still promote eventual elimination of waste disposal wells except for those that dispose of non-contact cooling water.

4. The proposed amendments to OAR 340-44 would allow the Director to issue a letter permit for new interim waste disposal wells in specific cases where it would help assure the proper extension and utilization of a regional sewerage facility. It could also be considered where it would preclude isolation of areas with improper sewage disposal.

Director's Recommendation

Based upon the summation, it is recommended that the Commission adopt the amendments to OAR 340-44 as proposed.

Mr. Richard Nichols, Central Region Manager, presented the following further amendments to the rule:

340-44-015(5)(d) Except for waste disposal wells that dispose of non-contact cooling water, no permit shall be issued for construction and use of a waste disposal well unless the owner of the property to be using the disposal well agrees in writing not to remonstrate against connection to sewer and abandonment of the waste disposal well when notified that a sewer is available. The agreement shall be recorded in county deed records and shall run as a covenant with the land.

No one was present to testify on this matter.

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess and carried unanimously that proposed amendments to OAR Chapter 340, Section 44 be adopted.

PUBLIC FORUM

Mr. Richard Brownstein appeared representing Columbia Sand & Gravel Company regarding their proposal for a demolition landfill site at 122 Avenue and San Rafael in Portland. He wanted to inform the Commission that he was filing an appeal for his clients regarding the denial of their request for a demolition landfill. Chairman Richards told Mr. Brownstein that it would be inappropriate for him to present his case at this time if this matter was going to come before the Commission in the future. Mr. Brownstein agreed to wait until the matter came before the Commission formally.

Ms. Inge C. McNeese appeared regarding the proposed issuance of an Air Contaminant Discharge Permit to the Evans Products Company in Corvallis. She stated that the proposed permit was not acceptable and asked the Commission to pursue alternatives other than issuing a permit at this time. Ms. McNeese said there was local concern that DEQ was not trying to protect the public health.

Chairman Richards replied that the proposed permit would not be issued until further staff research was done. He said it was the Director's job to issue the permit, but that the Commission may want to be further advised of this matter at their January meeting.

Mr. Charles A. Boyle presented written testimony from the Friends of Benton County asking a delay in the issuance of an Air Contaminant Discharge Permit for the Evans Products Plant. This written testimony is made a part of the Commission's record on this matter.

Mr. Marvin J. Marcotte, Friends of Benton County, presented questionnaires concerning health problems which had been filled out by residents around the Evans Products Plant. This material will be made a part of the Commission's record on this matter.

Mr. Tom Donaca, Associated Oregon Industries, informed the Commission that the Water Policy Review Board had asked the Corps of Engineers to initiate studies to determine how Willamette River stream flows could be maintained at levels adequate to protect water quality. He requested that the EQC join with the Water Board in its request to the Corps of Engineers.

The Commission requested that a letter be prepared and sent to the Corps in support of the Water Board's request. This letter was prepared and signed by all Commission members later in the meeting.

STATUS OF OPERATION OF PGE'S HARBORTON TURBINE GENERATING FACILITY

Mr. E. J. Weathersbee, of the Department's Air Quality Division, reviewed this matter for the Commission. He said the power situation was still serious and PGE was uncertain when the Trojan Nuclear Power Plant would be back in operation. If the Trojan shutdown continued, he said, there would continue to be a power emergency in the Northwest. Mr. Weathersbee reminded the Commission that both PGE's Bethel and Harborton plants were under special permits to operate during this emergency for a limited time. He said a public hearing would be held later in the month regarding Harborton's operation and that during this emergency the plant could be authorized to operate for up to 120 days.

Commissioner Somers complimented the Director and Mr. Weathersbee on their handling of this matter in the best way possible.

Mr. Weathersbee said the Department was primarily concerned with the health effects of operating the plant. In response to Commissioner Somers, Mr. Weathersbee said the operation of the Harborton plant under a special permit would not cause the shutdown of any other industry in the area.

AGENDA ITEM E - PUBLIC HEARING ON RENEWAL OF AIR CONTAMINANT DISCHARGE PERMIT FOR PORTLAND GENERAL ELECTRIC'S BETHEL COMBUSTION TURBINE FACILITY

This item pertained to the renewal of Portland General Electric's Air Contaminant Discharge Permit for the Bethel turbine plant located in Salem. Historically, because of the noise aspects of the plant, the Department has held a public hearing prior to permit renewal. For this upcoming renewal, PGE projected increased usage of the plant.

Mr. David St. Louis, Willamette Valley Region, summarized changes in the permit and said that PGE anticipated the plant operation would probably not exceed 2000 hours. Mr. St. Louis said the plant was in compliance with existing noise limits for both daytime and night. He said the plant had been operating within noise limits under a special permit since October 19, 1979.

Mr. J. Engen, Salem, testified that the operation of the Bethel plant had caused his wife to have headaches and also did some damage to his house. He suggested that aluminum plants be shut down to save electricity and then the Bethel plant would not have to be operated.

Mr. LeRoy Kuper, Salem, testified in opposition to the plant operation. He is a dairy farmer and stated that the plant operation seemed to affect production. He said the high frequency noise and vibration had affected his dog and the breeding of his cattle.

Ms. Marlene Frady, Salem, submitted for the record a letter from Mrs. Gordon Backe opposing the operation of the Bethel Plant. This letter is made a part of the Commission's record on this matter.

Mrs. Frady described health problems her family had experienced and damage to the house as a result of the operation of the plant. She said DEQ was not protecting the public health and welfare. Mrs. Frady testified that the power was not needed and requested that the plant be shut down at least at night.

Commissioner Somers said that the Commission could not violate their legislative authority by regulating vibration. He said that the Commission was not given the jurisdiction to regulate infrasound. He said the neighbors of the plant could seek relief in court.

Mr. R. F. Lockhart, Salem, testified that he had to move out of his house during the current operation of the plant. He maintained that attending this hearing would do no good because the plant would operate anyway.

Ms. Geneieve Larson, Salem, testified in opposition to the issuance of a permit to the Bethel plant. She said she was not involved in the lawsuit against PGE because her husband worked for the Bonneville Power Administration. Mrs. Larson protested not being informed of the potential issuance of a special permit to run Bethel. She said her family was affected by audible noise and also vibration from the plant. She also said the plumes from the plant occasionally exceeded standards and said the plant should not be run on foggy days when the plumes would not dissipate.

Mrs. Larson suggested that DEQ did not have enough help to check violations of standards. She protested that there was no one available on weekends to complain to, and that noise regulations were being violated. She asked that either the plant or the people living around it be moved.

Mr. Charles H. Frady, Salem, presented letters from Mr. and Mrs. Ralph Delany which opposed the operation of the plant and outlined health problems they had experienced since the plant had operated. These letters are made a part of the Commission's record on this matter.

Mr. Frady opposed the operation of the plant. He said that citizen complaints had not been addressed. Mr. Frady testified that the plant was portable and should be moved. He also outlined health problems experienced by his family.

Commissioner Somers added the following new condition to the permit:

11. d. Under no circumstances shall the permit at any time violate standards set forth in OAR 340-35-035.

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess and carried unanimously that the Director's Recommendation to issue the modified permit with Commissioner Somers added condition, be approved.

AGENDA ITEM F - PUBLIC HEARING TO CONSIDER ADOPTION OF PROPOSED OPEN FIELD BURNING REGULATIONS, OAR 340-26-005 THROUGH 26-030, AND AMENDMENT TO THE OREGON STATE IMPLEMENTATION PLAN

The Department developed proposed rule revisions regulating open field burning with significant input from the City of Eugene and the Oregon Seed Council. In addition, staff met with EPA to discuss pertinent concepts embodied in the proposed rules. The rules have been developed to prevent significant contributions by field burning to violations of federal air quality standards in the Eugene-Springfield area and to avoid exceedences of Prevention of Significant Deterioration increments in other areas of the state. Also, the Smoke Management Program would continue intact under the proposed rules to provide protection from smoke intrusions in populated areas in general. Finally, the ground work would be laid for a larger role by the seed industry in the management program. After this public hearing it was proposed to allow additional public testimony and comment to be submitted through December 31, 1979 with rule adoption tentatively scheduled for the January EQC meeting.

Summation

The Department proposes for adoption, after public hearing, revisions to rules regulating open field burning in the Willamette Valley. The proposed rule would:

1. Update the regulations to reflect the requirements of the 1979 field burning law (Chapter 181, Oregon Laws 1979).

2. Provide for the establishment of a "performance standard" method of limiting field burning smoke impacts in the Eugene-Springfield Air Quality Maintenance Area (AQMA). Specifically, the meteorological conditions under which burning would be allowed would become more restrictive as the cumulative hours of smoke intrusion in the Eugene-Springfield AQMA increase.

3. Prohibit burning activity under northerly winds if a violation of the federal, secondary 24-hour total suspended particulate standard is predicted using continuous particulate monitoring methods.

4. Restrict daily burning in the south valley to 1978 levels to ensure federal 24-hour Prevention of Significant Deterioration increments are not exceeded.

5. Clarify and reorganize certain portions of the existing rules. Detailed regulations regarding approval and use of mobile field sanitizers would be eliminated and replaced by more general rules regarding approval of alternatives to open field burning. Section 26-015, summer burning season regulations, would be reorganized.

The Department, through operational and budgetary changes, proposed to increase the Oregon Seed Council role in the daily smoke management program decisions. Better organization of growers and fire districts and increased meteorological analysis is proposed through additional Seed Council staff.

The Department of Environmental Quality and other affected parties conducted, through operational procedures, a program to reduce smoke problems in the Lebanon-Sweet Home area. Though some improvements were made, heavy smoke intrusions still occur under southerly wind burning conditions. The Department and others involved will assess and implement additional methods to mitigate the Lebanon-Sweet Home smoke problem.

Director's Recommendation

Based on the summation, it is recommended that the Environmental Quality Commission conduct a public hearing on the proposed rules leaving the record open through December 31, 1979, for such additional testimony as may be submitted. The Commission will be asked to adopt rules on field burning at its January 1980 meeting.

Mr. Dave Nelson, Oregon Seed Council, testified in support of the proposed rules.

Mr. Tim Sercombe, City of Eugene, testified in support of the proposed regulations.

It was MOVED and seconded that the Director's Recommendation in this matter be approved with the exception that the record only be held open for 10 days from the date of this meeting.

AGENDA ITEM G - PROPOSED ADOPTION OF RULES GOVERNING SAND FILTER SEWAGE TREATMENT SYSTEMS (OAR 340-71-037(4))

This item presents the proposed administrative rules for sand filter sewage treatment and disposal systems. Chapter 189, Oregon Laws 1979 required rules for sand filters be adopted by January 1, 1980.

Summation

1. The Legislature mandated rules for sand filter sewage systems not later than January 1, 1980 (Chapter 189, Oregon Laws 1979).

2. A task force developed the proposed rules.

3. The proposed rules, after proper notice, were taken to public hearings at four locations around the state.

4. Testimony from the public hearings was reviewed and evaluated and rule changes were made as appropriate.

Director's Recommendation

Based upon the summation, it is recommended that the Commission adopt as permanent rules the proposed rules OAR Chapter 340-71-037(4) to be effective January 1, 1980.

Mr. T. Jack Osborne of the Department's Subsurface Sewage Section, presented some further housekeeping amendments to the rules which were made a part of the rules proposed for adoption.

Representative Bill Rogers, District 44, testified about some concerns that systems may be authorized under the rules that would fail. He pointed out some problems he had with the proposed rules and indicated that he felt not enough public input went into the formulating of these rules.

Representative Rogers asked that the staff be instructed to get information from other states where sand filter systems were installed and then return with amendments to the proposed rules as appropriate.

Chairman Richards thanked Representative Rogers for his interest in this matter.

Mr. George Ward, consulting engineer, testified in support of the proposed rules. He asked that staff be sure the proposed rules did not conflict with land use planning goals.

Mr. Jerry Marshall, Clackamas County, testified in support of the proposed rules and presented some further amendments for clarification.

It was MOVED by Commissioner Somers, seconded by Commissioner Burgess and carried unanimously that the Director's Recommendation to approve the proposed rules be adopted with the amendments submitted by Mr. Osborne and Mr. Marshall.

AGENDA ITEM I - REQUESTS FOR VARIANCE FROM AIR QUALITY COMPLIANCE SCHEDULES

Four sources in Medford requested variances from the January 1, 1980 compliance deadline. Medford Corporation, Kogap Manufacturing, and Southwest Forest Industries have been unable to obtain the necessary equipment from the manufacturers. Medply based their request on the poor financial status of the company. All of these companies took all possible actions to complete the installation as soon as practicable.

Director's Recommendation - Kogap Manufacturing Company

Based upon the findings in the summation in the staff report, it is recommended that the Commission grant a variance from OAR 340-30-045(b), Compliance Schedules, and the portion of the permit plant site emission limit applicable to the veneer dryers, to Kogap Manufacturing Company for the operation of its veneer dryers in Medford, Oregon, subject to the following conditions:

1. On-site construction of the control equipment shall begin by not later than March 1, 1980.

2. The veneer dryer emission control equipment shall be installed and in operation and compliance demonstrated by June 1, 1980.

3. From January 1 to June 1, 1980, Kogap shall limit the amount of Douglas Fir and pine dried in the veneer dryers as much as practicable.

4. If the Department determines that the veneer dryers' emissions cause significant adverse impact on the community or airshed, this variance may be revoked.

5. The portion of the plant site emission limit allocated to the veneer dryers will not be applicable until June 1, 1980. It will be prorated for the remainder of the calender year.

6. This variance will expire June 1, 1980.

Director's Recommendation - Southwest Forest Industries

Based upon the findings in the summation in the staff report, it is recommended that a variance from OAR 340-30-045(b) and the plant site emission limit contained in the permit be granted to Southwest Forest Industries for operation of the veneer dryers at their plant numbers 5 and 6. This variance will be subject to the following conditions:

1. On-site construction of the control equipment shall begin by no later than February 1, 1980.

2. Construction of the control equipment shall be completed by no later than May 1, 1980.

3. The compliance of all veneer dryers at plant numbers 5 and 6 shall be demonstrated by no later than July 1, 1980.

4. Southwest Forest Industries shall continue to utilize the low salt content glues and any other equipment or procedures which will minimize emissions during the period of this variance.

5. The portions of the plant site emission limits allocated to the veneer dryers will not be applicable until July 1, 1980. They will be prorated for the remainder of the calendar year.

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

7. This variance expires July 1, 1980.

Director's Recommendation - Medply Corporation

Based upon the findings in the summation of the staff report, it is recommended that the Commission grant a variance from OAR 340-30-045(b), Compliance Schedule, to Lang and Gangnes Corporation dba Medply for the operation of its veneer dryer #3 in White City, Oregon, subject to the following conditions:

1. By no later than March 1, 1980, the company shall submit a control strategy, including plans and specifications and compliance schedule for control of veneer dryer #3.

2. The veneer dryer emission control equipment shall be installed and in operation by January 1, 1981.

3. Veneer dryers #1 and #2 shall only dry White Fir veneer.

4. If the Department determines that the veneer dryers' emissions cause a significant adverse impact on the community airshed, this variance may be revoked.

5. This variance expires January 1, 1981.

Director's Recommendation - Medford Corporation

Based upon the findings in the summation in the staff report, it is recommended that the Commission grant a variance from OAR 340-30-045(a), Compliance Schedules, to Medford Corporation for the operation of its Riley boiler subject to the following conditions:

1. On-site construction of the control equipment shall be completed by April 1, 1980.

2. The results of the particulate emission source test shall be submitted by no later than June 1, 1980.

3. The portion of the plant site emission limit allocated to the Riley boiler will not be applicable until April 1, 1980. It will be prorated for the remainder of the calendar year.

4. If the Department determines that the Riley boiler emissions cause significant adverse impacts on the community or airshed, this variance may be revoked.

5. This variance shall expire on April 1, 1980.

It was MOVED by Commissioner Somers, seconded by Commissioner Densmore and carried unanimously that the above Director's Recommendations be approved.

AGENDA ITEM K - INFORMATIONAL ITEM - REVIEW OF TAX CREDIT PROGRAM FORMS, INSTRUCTIONS, ATTORNEY GENERAL OPINIONS AND PRECEDENTS

This item was discussed at the Commission's lunch meeting. The Commission requested that the staff return with this item at a later date when more complete information was available.

There being no further business, the meeting was adjourned.

Respectfully submitted,

Carol A. Splettstaszer

Carol A. Splettstaszer
Recording Secretary

Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item B, December 14, 1979, EQC Meeting

October Program Activity Report and November Hearings Report

Discussion

Attached is the October Program Activity Report and November Hearings Report.

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

Water and Solid Waste facility plans and specifications approvals or disapprovals and issuance, denials, modifications and revocations of 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 program 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 contamination source plans and specifications; and
3) to provide a log on the 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 listed on pages 2 and 3 of the report.

Bill

WILLIAM H. YOUNG

M.Downs:ahe
229-6485
11-30-79

DEPARTMENT OF ENVIRONMENTAL QUALITY

Monthly Activity Report

October, 1979
Month

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DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air, Water, and Solid Waste Divisions (Reporting Unit)

October, 1979 (Month and Year)

SUMMARY OF PLAN ACTIONS

	Plans Received		Plans Approved		Plans Disapproved		Plans Pending
	Month	Fis.Yr.	Month	Fis.Yr.	Month	Fis.Yr.	
Air							
Direct Sources	13	63	25	71	0	0	43
Water							
Municipal	57	411	115	413	0	0	60
Industrial	18	54	9	49	0	0	27
Solid Waste							
General Refuse	4	9	3	7	0	2	5
Demolition	3	3	0	0	0	0	4
Industrial	4	5	4	5	0	0	2
Sludge	1	2	1	1	0	0	0
Hazardous Wastes	0	0	0	0	0	0	0
GRAND TOTAL	100	547	157	546	0	2	141

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division (Reporting Unit) — October, 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Direct Stationary Sources			
Lane (NC 1381)	Trus Joist Corp. Paving storage yard	08/30/79	Approved (tax credit only)
Washington (NC 1398)	Woodfold-Marco Mfg. Baghouse	09/20/79	Approved
Jackson (NC 1411)	Pinnacle Packing Co., Inc. Pond for overhead sprinklers	09/03/79	Approved
Lane (NC 1432)	Hearin Forest Industries Yard paving	10/09/79	Approved
Lane (NC 1439)	Zip-O-Log Mills, Inc. Yard Paving	09/04/79	Approved
Multnomah (NC 1441)	Mayflower Farms New feed mill	09/07/79	Approved
Lane (NC 1443)	J.O/ Olsen Mfg. Co. Yard paving	10/09/79	Approved
Columbia (NC 1450)	United Asphalt Inc. Asphalt plant	09/06/79	Approved
Lane (NC 1454)	Oregon Handle Yard paving	09/05/79	Approved
Multnomah (NC 1456)	K.F. Jacobsen New burner in asphalt plant	09/07/79	Approved
Jackson (NC 1459)	Reter Fruit Co. 20 orchard fans	10/12/79	Approved
Deschutes (NC 1462)	Lapine Redi-Mix Inc. Renew silo filter	08/21/79	Approved
Jackson (NC 1467)	Timber Products Co. Baghouse	08/31/79	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division (Reporting Unit) — October, 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Direct Stationary Sources			
Union (NC 1468)	Boise Cascade Corp. Sander dust baghouse	09/19/79	Approved
Lane (NC 1472)	Standard Forest Products, Inc. Yard paving	10/11/79	Approved (tax credit only)
Portable (NC 1473) (NC 1474 canceled)	R. L. Coats Asphalt baghouse	10/05/79	Approved
Multnomah (NC 1476)	Leavitt NuPacific Co. Rock crusher	09/07/79	Approved
Multnomah (NC 1478)	Western-Pacific Construction Materials Co. Water spray system	10/12/79	Approved
Jackson (NC 1480)	Associated Fruit Co. Over tree sprinkler system	09/19/79	Approved
Deschutes (NC 1487)	Willamette Industries, Inc. Shavings storage building	10/04/79	Approved
Deschutes (NC 1488)	Willamette Industries, Inc. Green shavings storage bin	10/04/79	Approved
Marion (NC 1489)	Highland Laboratories Vitamin pill mfg.	10/04/79	Approved
Washington (NC 1493)	Siemens-Allis, Inc. Galvanizing plant	10/05/79	Approved
Klamath (NC 1494)	Alpine Veneers Inc. Hogged fuel boiler	10/16/79	Approved
Klamath (NC 1497)	Weyerhaeuser Co. Cyclone for purchased sander dust	10/12/79	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

WATER QUALITY (Reporting Unit) — OCTOBER 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project/Site and Type of Same	Date of Action	Action
INDUSTRIAL WASTE SOURCES (9)			
Marion	Hesse Dairy-Jefferson Earthen Storage Lagoon	10/01/79	Approved
Marion	Joe Plas - Scotts Mill, Swine Operation	10/01/79	Approved
Jackson	Medford Corporation - Medford Scrubber Water Recycle	10/03/79	Approved
Multnomah	Ross Island Sand and Gravel Portland Wastewater Holding Facility	10/03/79	Approved
Washington	Siemens-Allis, Inc. - Tigard Wastewater Holding Facility	10/05/79	Approved
Marion	Moo Meadows Farm - Aumsville Storage and Irrigation Piping	10/10/79	Approved
Coos	Conrad Lumber Co.- Coos Bay Wood Treatment Plant, Nondischarge	10/10/79	Approved
Lincoln	Newport Seafood-Newport Screening Crab Waste	10/15/79	Approved
Clackamas	Avison Lumber-Molalla Remove Pond and Install Dry Deck and Equipment	10/10/79	Approved

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal Wastes Sources (115)			
Jackson	Littlegreen Valley Subd Ashland	10/19/79	PA
Multnomah	Wood Village MH Park FM Wood Village	10/4/79	PA
Coos	Westgate Subd, Ph 2 Coos Bay	10/19/79	PA
Lane	Breeden Bros-Somerset Villa Eugene	10/10/79	PA
Klamath	T-1152-N Hills Subd Klamath Falls	10/11/79	PA
Clackamas	Del Marcus Estates CCSD #1	10/5/79	PA
Douglas	River Hts PUD Green SD	10/5/79	PA
Marion	Cen Meadows No. 4 Century Meadows	10/15/79	PA
Lane	Jeppesen Acres Rd 1769 Eugene	10/3/79	PA
Lane	Bonnie View Dr 1177 Eugene	10/3/79	PA
Lane	Moss St & Villard St 1768 Eugene	10/4/79	PA
Lane	Arcadia St 1687 Eugene	10/4/79	PA
Lane	Seneca Road 1747 Eugene	10/4/79	PA

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal Waste Sources - Continued			
Clackamas	STP Expansion Wilsonville	10/31/79	PA
Linn	E Central, Ph V Albany	10/19/79	PA
Multnomah	Dor-Ann Estates Gresham	10/19/79	PA
Multnomah	Rover Estates Gresham	10/22/79	PA
Marion	Friendship Addition Salem	10/18/79	PA
Marion	Cambridge Woods Salem	10/12/79	PA
Jackson	Vivian St Project BCVSA	10/12/79	PA
Multnomah	NE 158 St Ext Inverness	10/17/79	PA
Lincoln	Spyglass LID Lincoln City	10/19/79	PA
Deschutes	Aqua Loma Subd Bend	10/2/79	PA
Benton	29 St Corvallis	10/12/79	PA
Benton	9th-10th Repl Corvallis	10/12/79	PA

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal Waste Sources - Continued			
Lane	Sunridge 1 PUD Eugene	10/12/79	PA
Clatsop	City Swr System Hammond	10/10/79	PA
Harney	Faith Develop Hines	10/05/79	PA
Clackamas	Spring Cr Campus Lk Oswego	10/1/79	PA
Deschutes	STP & Land Disp Sys Inn Seventh Mtn	10/26/79	PA
Marion	Royalann Estates Salem	10/18/79	PA
Lincoln	SW Inlet Ave Lincoln City	10/8/791	PA
Lincoln	NW Oar Ave Lincoln City	10/8/79	PA
Tillamook	Lat B-11 NTCSA	10/5/79	PA
Marion	Begind Reed Salem	10/15/79	PA
Hood River	Hood River Sewers Hood River	10/8/79	PA
Lincoln	Ocean Pk Subd Gleneden SD	10/18/79	PA
Multnomah	SE Palmquist Multnomah County	10/4/79	PA

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal Waste Sources - Continued			
Polk	Lacreole Ext Dallas	10/19/79	PA
Clackamas	LID No. 9 Canby	10/16/79	PA
Marion	Silverstone Salem	10/9/79	PA
Deschutes	Fairway Crest Vil Sunriver	10/19/79	PA
Douglas	De Priest Green SD	10/16/79	PA
Douglas	Bourne St Green SD	10/16/79	PA
Douglas	Happy Valley Rd Green SD	10/16/79	PA
Klamath	Nob Hill Replat Klamath Falls	10/18/79	PA
Douglas	Newton Cr Project NRSD	10/10/79	PA
Washington	Apt Develop Forest Grove	10/19/79	PA
Clackamas	Safeco Site Lake Oswego	10/12/79	PA
Marion	Cloud 9 Addendum Salem	10/10/79	PA
Clackamas	Chez Soleil Lake Oswego	10/4/79	PA

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal Waste Sources - Continued			
Deschutes	Glaze Meadow 10, 11, 12 Black Butte	10/30/79	PA
Multnomah	62 Ave Portland	10/13/79	PA
Multnomah	Westover Rd Portland	10/13/79	PA
Multnomah	Ash Cr Woods Portland	10/13/79	PA
Multnomah	Timber Cr Subd Portland	10/13/79	PA
Tillamook	Bayshore Pk Netarts-Oceanside SD	10/10/79	PA
Multnomah	Sandstone II Gresham	10/11/79	PA
Washington	Katherine Subd USA	10/11/79	PA
Washington	SW 121 Ave USA	10/11/79	PA
Lane	Maywood Eugene	10/12/79	PA
Lane	Somerset Villa Eugene	10/22/79	PA
Clackamas	Queen Iris Estates CCSD #1	10/22/79	PA
Benton	Dixon Med Ct Subd Corvallis	10/17/79	PA

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal Waste Sources - Continued			
Lane	Country Highlands Subd Ph 1 Lowell	10/17/79	PA
Jackson	Rogue River Estates Medford	10/17/79	PA
Jackson	Burris Ext BCVSA	10/23/79	PA
Marion	Minten's Third Add Stayton	10/25/79	PA
Clackamas	Bomar Hts Subd CCSD No. 1	10/25/79	PA
Clackamas	Canemah Subd Imp Oregon City	10/26/79	PA
Josephine	Annette Subd Cave Junction	10/26/79	PA
Josephine	Bayard Major Partition Grants Pass	10/26/79	PA
Lincoln	Third St Imp Yachats	10/23/79	PA
Multnomah	Cedar Lk Ests Mobile Hm Pk Gresham	10/23/79	PA
Clackamas	Bryn Mawr Subd CCSD No. 1	10/23/79	PA
Tillamook	Lateral H-1-2 NTCSA	10/22/79	PA
Tillamook	Main 2 Ext & Lateral 22.2 Rockaway	10/26/79	PA

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal Waste Sources - Continued			
Lane	Tax Lot No. 900 Eugene	10/23/79	PA
Multnomah	Arboretum Hills Portland	10/22/79	PA
Washington	Shopping Cntr-Cedar Hills Blvd. USA	10/22/79	PA
Washington	Hallberg Hms Office Complex USA	10/26/79	PA
Multnomah	SW 41 Ave-Coronado-Vacuna Portland	10/26/79	PA
Douglas	Tara View Subd Ph 1 Roseburg	10/26/79	PA
Curry	13 St Imp Port Orford	10/22/79	PA
Multnomah	158 St Ext Multnomah County	10/22/79	PA
Washington	Hunt Club Ext USA	10/26/79	PA
Washington	Fairview Place USA	10/26/79	PA
Washington	Westside Center USA	10/22/79	PA
Lane	Central Mfg Eugene	10/26/79	PA

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal Waste Sources - Continued			
Marion	1977-78 Swr Replacement Salem	10/29/79	PA
Clackamas	Courtside Estates Wilsonville	10/29/79	PA
Douglas	Santa Maria Est Ph 1 Green SD	10/29/79	PA
Lincoln	Postal Facility Lincoln City	10/29/79	PA
Yamhill	Willamina Lumber Co. Willamina	10/29/79	PA
Marion	Breckenridge II Salem	10/19/79	PA
Marion	Breckenridge Hts III Salem	10-/19/79	PA
Washington	Getty Add USA	10/22/79	PA
Washington	Barbee Ct USA	10/22/79	PA
Washington	Albanis Wood USA	10/22/79	PA
Washington	SW Hampton Ext USA	10/22/79	PA
Washington	Seminole Pk II USA	10/22/79	PA
Washington	Cornell 240 USA	10/22/79	PA

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal Waste Sources - Continued			
Marion	Village 1980 Stayton	10/19/79	PA
Jackson	Burris Project BCVSA	10/19/79	PA
Marion	Chancellor Add Salem	10/22/79	PA
Multnomah	SW Bennington Portland	10/22/79	PA
Multnomah	Macadam-Seymour Portland	10/22/79	PA
Multnomah	SE Brookside Portland	10/17/79	PA
Multnomah	SW Westwood Ct Portland	10/17/79	PA
Multnomah	NW Vaughn St Portland	10/17/79	PA
Clackamas	Main St Ext Molalla	10/17/79	PA
Washington	Dalena Park USA	10/16/79	PA
Polk	Ashbrook VI Monmouth	10/22/789	PA
Marion	Cherry Court Stayton	10/26/79	PA

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Municipal Waste Sources - Continued			
Jackson	Village Subd Central Point	10/26/79	PA

PA = Provisional Approval

WL0037.A

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste Division (Reporting Unit) — October 1979 (Month and Year)

PLAN ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Lane	Last Chance Landfill New Wood Waste Site Construction and Operational Plans	10/02/79	Conditional Approval
Lake	Pettus Sludge Site New Septic Tank Sludge Disposal Site Operational Plan	10/16/79	Conditional Approval
Curry	Brookings Energy Facility New Incinerator Site Construction and Operational Plans	10/18/79	Conditional Approval
Curry	Wridge Creek Landfill New Facility Construction and Operational Plans	10/18/79	Conditional Approval
Coos	Horse Flats Landfill Existing Wood Waste Site Operational Plan	10/19/79	Plan Amended
Douglas	Roseburg Lumber, Riddle Existing Wood Waste Site Operational Plan	10/19/79	Plan Amended
Douglas	Douglas County Lumber Co. New Wood Waste Site Construction and Operational Plans	10/23/79	Conditional Approval
Lincoln	Agate Beach Landfill Existing Facility Operational Plan	10/24/79	Conditional Approval

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division (Reporting Unit) — October, 1979 (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	7	19	2	15	22		
Existing	4	7	0	11	13		
Renewals	23	28	0	37	73		
Modifications	5	9	2	20	13		
Total	39	63	4	83	121	1928	1963
Indirect Sources							
New	3	10	1	18	11		
Existing	-	-	-	-	-		
Renewals	-	-	-	-	-		
Modifications	1	2	1	1	1		
Total	4	12	2	19	12	141	

Number of Pending Permits	Comments
28	To be drafted by Northwest Region
5	To be drafted by Willamette Valley Region
6	To be drafted by Southwest Region
3	To be drafted by Central Region
10	To be drafted by Eastern Region
1	To be drafted by Program Planning Division
11	To be drafted by Program Operations
3	Awaiting Next Public Notice
54	Awaiting the end of 30-day Noted Period
121	

49 Technical Assistances
5 A-95's

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division (Reporting Unit) — October, 1979 (Month and Year)

PERMIT ACTIONS COMPLETED

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Indirect Source			
Multnomah	Powell Boulevard Phase II 50th Avenue to I-205 File No. 26-7928	09/29/79	Final Permit Issued
Washington	Intel-Hillsboro 3600 spaces File No. 34-8015	09/28/79	Final Permit Issued

DEPARTMENT OF ENVIRONMENTAL QUALITY

PERMITS ISSUED

DIRECT STATIONARY SOURCES

COUNTY	SOURCE	PERMIT NUMBER	APPLIC. RECEIVED	STATUS	DATE ACHIEVED	TYPE OF APPLICATION
COOS	WEYERHAEUSER CO.	06 0007	00/00/00	PERMIT ISSUED	09/27/79	MOD
DOUGLAS	ROSEBURG LUMBER CO	10 0053	05/10/79	PERMIT ISSUED	10/01/79	NEW
LINN	TELEDYNE WAH CHANG	22 0547	12/20/78	PERMIT ISSUED	10/04/79	NEW
LINN	BOISE CASCADE	22 7008	00/00/00	PERMIT ISSUED	10/15/79	MOD

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (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.							
	*	/**	*	/**	*	/**	*	/**	*	/**	*	/**	*	/**
Municpal														
New	1	/1	1	/3	0	/2	0	/3	2	/7				
Existing	0	/0	0	/2	0	/0	0	/0	6	/3				
Renewals	11	/1	14	/1	0	/0	15	/0	41	/3				
Modifications	0	/0	1	/0	0	/0	0	/0	4	/3				
Total	12	/2	16	/6	0	/2	15	/3	53	/13	245	/88	253	/98
Industrial														
New	1	/1	3	/10	1	/0	3	/0	7	/11				
Existing	0	/0	0	/1	[1] 3	/0	3	/0	3	/2				
Renewals	27	/5	29	/6	8	/0	30	/0	55	/8				
Modifications	2	/0	2	/0	1	/0	1	/0	4	/0				
Total	30	/6	34	/17	13	/0	37	/0	69	/21	410	/133	420	/146
Agricultural (Hatcheries, Dairies, etc.)														
New	1	/0	2	/3	0	/1	1	/1	3	/3				
Existing	0	/0	0	/2	0	/0	0	/1	0	/1				
Renewals	0	/0	0	/0	0	/0	0	/1	0	/0				
Modifications	0	/0	0	/0	0	/0	0	/0	0	/0				
Total	1	/0	2	/5	0	/1	1	/3	3	/4	64	/24	67	/28
GRAND TOTALS	43	/8	52	/28	13	/3	53	/6	125	/38	719	/245	740	/272

* NPDES Permits

** State Permits

[1] Includes three NPDES Permits Cancelled

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PERMIT ACTIONS COMPLETED (16)

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Baker	Jerry Ross McLean Animal Waste	10/15/79	State Permit Issued
Clatsop	Oregon Military Dept. Camp Rilea	10/15/79	State Permit Issued
Baker	Baker County Rest Area Sewage Disposal	10/15/79	State Permit Issued
Marion	Pacific Power & Light Mill City	10/15/79	NPDES Permit Renewed
Deschutes	Brooks Scanlon, Inc. Lumber Mill	10/18/79	NPDES Permit Renewed
Douglas	Roseburg Lumber Riddle--Wood Products	10/18/79	NPDES Permit Renewed
Douglas	Roseburg Lumber Green--Wood Products	10/18/79	NPDES Permit Renewed
Marion	Deer Creek Estates Mobile Home Assoc.	10/18/79	NPDES Modification Issued
Jackson	Medford Corp. Industrial Waste	10/18/79	NPDES Permit Renewed
Lake	Fremont Lumber Ostrander Construction Co.	10/18/79	NPDES Permit Issued
Lincoln	Northwestern Aquatic Sciences Research Facility	10/29/79	NPDES Permit Issued
Josephine	Southern Oregon Plywood, Inc. Wood Products	10/29/79	NPDES Permit Renewed
Multnomah	McCall Oil Co. Industrial Waste	10/29/79	NPDES Permit Renewed

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division (Reporting Unit) — October 1979 (Month and Year)

PERMIT ACTIONS COMPLETED (16)

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Permit Actions Completed - Continued			
Lane	Shell Oil Co. Eugene Facility	10/9/79	NPDES Permit Cancelled
Linn	Tomco, Inc. Cascadia Facility	10/5/79	NPDES Permit Cancelled
Lincoln	City of Newport Water Treatment Plant	10/18/79	NPDES Permit Cancelled

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste Division (Reporting Unit) — October 1979 (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	1	2	1	1	4		
Existing	-	-	-	-	11		
Renewals	5	8	3	6	21		
Modifications	-	2	-	11	4		
Total	6	12	4	18	40	169	171
Demolition							
New	-	-	-	-	1		
Existing	-	-	-	1	-		
Renewals	2	3	-	-	3		
Modifications	-	-	-	5	-		
Total	2	3	0	6	4	21	21
Industrial	-	-	-	-	-		
New	-	-	-	-	3		
Existing	-	-	-		-		
Renewals	4	5	1	2	7		
Modifications	-	-	-	-	-		
Total	4	5	1	2	10	104	104
Sludge Disposal							
New	-	-	-	-	1		
Existing	-	-	-	-	1		
Renewals	-	-	-	-	-		
Modifications	-	-	-	-	-		
Total	0	0	0	0	2	12	13
Hazardous Waste							
New	-	-	-	-	-		
Authorizations	10	36	12	34	6		
Renewals	-	-	-	-	-		
Modifications	-	-	-	-	-		
Total	10	36	12	34	6	1	1
GRAND TOTALS	22	56	17	60	62	307	310

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Solid Waste Division (Reporting Unit) — October 1979 (Month and Year)

PERMIT ACTIONS COMPLETED (5)

County	Name of Source/Project /Site and Type of Same	Date of Action	Action
Domestic Refuse Facilities (4)			
Grant	Monument Landfill New facility	10/08/79	Permit issued
Deschutes	Fryrear Landfill Existing facility	09/26/79*	Permit renewed
Wheeler	Fossil Landfill Existing facility	09/27/79*	Permit renewed
Wallowa	Ant Flat Landfill Existing facility	09/28/79*	Permit renewed
Demolition Waste Facilities (none)			
Industrial Waste Facilities (1)			
Douglas	Rifle Range Road Landfill Existing wood waste site	10/17/79	Permit renewed
Sludge-Disposal Facilities (none)			

* Not reported last month.

ACTIONS	LAST MONTH	PRESENT MONTH
Preliminary Issues	3	5
Discovery	3	1
Settlement Action	7	4
Hearing to be Scheduled	5	0
Hearing Scheduled	6	9
Hearing Officer's Decision Due	6	3
Brief	0	0
Inactive	4	4
SUBTOTAL of Active Files	34	26
HO's Decision Out/Option for EQC Appeal	1	2
Appealed to EQC	3	8
EQC Appeal Complete/Option for Court Review.	2	1
Court Review Option Pending or Taken	1	2
Case closed	0	4
TOTAL Cases	41	43

KEY

ACD	Air Contaminant Discharge Permit
AQ	Air Quality
AQ-NWR-76-178	Violation involving Air Quality occurring in Northwest Region in the year 1976; 178th enforcement action during 1976.
CLR	Chris Reive, Investigation & Compliance Section
Cor	Wayne Cordes, Hearings Officer
CR	Central Region
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 Investigation & Compliance Section requests Hearings Section to schedule a hearing
Hrng Rqst	Date agency receives a request for hearing
JHR	John Rowan, Investigation & Compliance Section
VAK	Van Kollias, Investigation & Compliance Section
LKZ	Linda Zucker, Hearings Officer
LMS	Larry Schurr, Investigation & Compliance 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
P	At beginning of case number means litigation over permit or its conditions
PR	Portland Region (now NWR)
PNCR	Portland/North Coast Region (now NWR)
Prtys	All parties involved
Rem Order	Remedial Action Order
Resp Code	Source of next expected activity on case
SNCR	Salem/North Coast Region (now WVR)
SSD	Subsurface Sewage Disposal
SW	Solid Waste
SWR	Southwest Region
T	At beginning of case number means litigation over tax credit matter
Transcr	Transcript being made of case
Underlined	Different status or new case since last month contested case log
WVR	Willamette Valley Region
WQ	Water Quality

November 1979
DEQ/EQC Contested Case Log

Pet/Resp Name	Hrng Rqst	Hrng Rfrrl	DEQ or Atty	Hrng Offcr	Hrng Date	Resp Code	Dec Date	Case Type & No.	Case Status
~~Davis et al~~	~~05/75~~	~~05/75~~	~~RLH~~	~~LKZ~~	~~05/76~~	~~Resp~~	~~06/78~~	~~12-SSD-Permits~~	~~Closed by stipulation October 31, 1979~~
Paulsen	05/75	05/75	RLH	LKZ		Resp		02-SS-WVR-75-01 1 SSD Permit	Settlement Action
Faydrex, Inc.	05/75	05/75	RLH	LKZ	11/77	Hrgs		03-SS-SWR-75-02 64 SSD Permits	~~Reply brief filed 07/13/79;~~ Decision Due ~~First rough draft prepared~~
Mead and Johns et al	05/75	05/75	RLH	LKZ		All		04-SS-SWR-75-03 3 SSD Permits	Awaiting disposition of Faydrex
PGE (Harborton)	02/76	02/76	RPU	LKZ		Prtys		01-P-AQ-PR-76-01 ACD Permit Denial	Extension to 12-01-79 for filing exceptions Further requests for extensions to be referred to Commission
Jensen	11/76	11/76	RLH	LKZ	12/77	Resp	06/78	$1500 Fld Brn 05-AQ-SNCR-76-232	Signed stipulation to be be submitted to EQC for approval
Mignot	11/76	11/76	LMS	LKZ	02/77	Resp	02/77	$400 06-SW-SWR-288-76	Petition to Court of Appeals for review filed November 28, 1979
Jones	04/77	07/77	LMS	Cor	06/09/78	Resp		SSD Permit 01-SS-SWR-77-57	EQC affirmed HO's decision Notice of appeal to Court of Appeals due December 24
~~Three-D Corp~~	~~05/77~~	~~06/77~~	~~RLH~~	~~LKZ~~	~~11/14/79~~	~~Resp~~		~~04-WQ-SNCR-77-101 $11,000-Total-WQ-Viol-SNCR~~	~~Settled by stipulation November 19, 1979~~
~~Wright~~	~~05/77~~	~~05/77~~	~~RLH~~	~~LKZ~~				~~$75-03-SS-MWR-77-99~~	~~Petition for review by Supreme Court denied November 16, 1979.~~
Magness	07/77	07/77	LMS	Cor	11/77	Hrngs		$1150 Total 06-SS-SWR-77-142	Draft completed November 30, 1979
Grants Pass Irrig	09/77	09/77	RLH	LKZ	04/80	Prtys		$10,000 10-WQ-SWR-77-195	Hearing set in Medford
Zorich	10/77	10/77	FWO	Cor	12/11/79	Prtys		$100 08-NP-SNCR-77-173	Hearing reset in Astoria
Powell	11/77	11/77	RLH	Cor	01/23/80	Prtys		$10,000 Fld Brn 12-AQ-MWR-77-241	Hearing scheduled in Corvallis
Carl F. Jensen	12/77	01/78	RLH	LKZ		Prtys		$18,600 Fld Brn 16-AQ-MWR-77-321	Stipulation to be submitted to EQC for approval
Carl F. Jensen/ Elmer Klopfenstien	12/77	01/78	RLH	LKZ		Prtys		$1200 Fld Brn 16-AQ-SNCR-77-320	Stipulation to be submitted to EQC for approval
Wah Chang	01/78	02/78	RLH	LKZ	11/27/79	Prtys		$5500 17-WQ-MWR-77-334	Stipulation to be submitted to EQC for approval
Hawkins	03/78	03/78	FWO	LKZ	12/17/79	Prtys		$5000 15-AQ-PR-77-315	Hearing set in Portland
Hawkins Timber	03/78	03/78	FWO	LKZ				$5000 15-AQ-PR-77-314	No action pending hearing in companion case
Wah Chang	04/78	04/78	RLH	LKZ		Prtys		16-P-WQ-WVR-2849-J NPDES Permit (Modification)	Preliminary Issues
Wah Chang	11/78	12/78	RLH	LKZ		Prtys		08-P-WQ-WVR-78-2012-J	Preliminary Issues
Stimpson	05/78		FWO	LKZ	07/24/79	Hrgs		Tax Credit Cert. 01-T-AQ-PR-78-010	Decision Due
Vogt	06/78	06/78	RPU	Cor	11/08/78	Resp		$250 Civil Penalty 05-SS-SWR-78-70	Request for EQC review received October 29. Exceptions due but not filed November 28.
Hogue	07/78	07/79	LMS	LKZ		Resp		15-P-SS-SWR-78	Hearing delayed pending approval of Alternate system
Welch	10/78	10/78	RLH	LKZ		Dept		07-P-SS-CR-78-134	Discovery
Reeve	10/78		RLH	LKZ		Dept		06-P-SS-CR-78-132 & 133	Hearing deferred 60 days pending settlement

November 1979
DEQ/EQC Contested Case Log

Pet/Resp Name	Hrng Rqst	Hrng Rfrrl	DEQ or Atty	Hrng Offcr	Hrng Date	Resp Code	Dec Date	Case Type & No.	Case Status
Bierly	12/78	12/78	VAK	LKZ	10/30/79	Prtys		$700 08-AQ-WVR-78-144	Signed Stipulation to be submitted to EQC for approval.
Glaser	01/79	01/79	LMS	LKZ		Prtys		$2200 09-AQ-WVR-78-147	Signed Stipulation to be submitted to EQC for approval.
~~Hatley~~	~~01/79~~	~~02/79~~	~~CLR~~	~~LKZ~~	~~08/10/79~~	~~Resp~~		~~$3250-10-AQ-WVR-78-156~~	~~Decision out-10/08/79 Notice of Appeal to EQC due-November 5,-1979~~
Wah Chang	02/79	02/79	RLH	LKZ		Resp		$3500 12-WQ-WVR-78-187	Amended answer filed November 14, 1979
TEN EYCK	12/78	08/79	LMS	LKZ		Dept		02-P-SS-ER-78-06	Hearing deferred until completion of monitoring
Loren Raymond	04/79	04/79	FWO	LKZ	08/28/79	Hrgs		02-P-SS-ER-79-02	Decision issued November 1, 1979
Martin, Leona	05/79	05/79	CLR	LKZ	10/18/79	Prtys		$250 04-SS-SWR-79-49	Dept. seeks dismissal
Don Obrist, Inc.	07/79	07/79	RLH	LKZ		Dept		Solid Waste Permit Amendment 07-P-SW-213-NWR-79	Plans sent to Department for approval
JOHNSON, Melvin	06/79				10/05/79	Prtys		$100-19-SS-PR-77-35 $750-19-SS-PR-77-97	Post-judgment order issued October 31, 1979
KLINEPIER, Richard I.	09/79	09/79	JHR	LKZ		Resp		08-P-SS-WVR-79-03 Subsurface sewage permit denial	Department's motion to dismiss filed November 14, 1979
CALLAHAN, Gerald R.	09/79	09/79	CLR	LKZ	01/09/80	Prtys		09-SS-ER-79-61 Civil Penalty of $150	Hearing scheduled
DESCHUTES READY-MIX SAND & GRAVEL CO.	09/79	09/79		LKZ		Resp		10-WQ-CR-79-82 Civil Penalty of $7,000	Default Order entered by Department Nov. 15, 1979
KRUGER, Walter A.	09/79	09/79	CLR	LKZ	01/30/80	Prtys		11-AQ-NWR-79-97 Open Burning Civil Penalty of $250	Hearing scheduled
BARKER, Michael	10/79	10/79	LMS	LKZ	12/06/79	Prtys		12-SS-SWR-79-56 SS Permit revocation	Hearing scheduled
PETER, Ernie	10/79	10/79	CLR	LKZ	12/05/79	Prtys		13-AQ-WVR-79-86 Open Field Burning Civil Penalty of $500	Hearing scheduled
MALLORY & MALLORY Inc.	11/79	11/79	JHR	LKZ	01/10/80			14-AQ-CR-79-101 Open Burning Civil Penalty	Hearing scheduled
BRIDENSTONE	11/08/79	11/20/79						15-SS-SWR-79-60 Permit denial	Preliminary Issues

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, December 14, 1979, EQC Meeting

TAX CREDIT APPLICATIONS

Director's Recommendation

It is recommended that the Commission take action to issue Pollution Control Facility Certificates to the following applicants:

T-1101	Medford Corporation
T-1102	Publishers Paper Company
T-1103	Bickford Orchards, Inc.
T-1104	Rough & Ready Lumber Company
T-1111	Publishers Paper Company
T-1112	Publishers Paper Company
T-1113	Publishers Paper Company
T-1114	Lyle S. Alexander
T-1125	Champion International Corp.
T-1130	Anodizing, Inc.
T-1113	Weyerhaeuser Company

Michael Downs
for WILLIAM H. YOUNG

MJDowns:cs
229-6484
December 7, 1979
Attachments

PROPOSED DECEMBER 1979 TOTALS

Air Quality	$ 364,623
Water Quality	55,224
Solid Waste	12,309,599
Noise	-0-
	$12,729,446

CALENDAR YEAR TOTALS TO DATE

Air Quality	$ 7,821,361
Water Quality	13,372,858
Solid Waste	1,928,071
Noise	94,176
	$23,216,466

Appl T-1101
Date 11/15/79

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Medford Corporation
Southern Oregon Plywood Division
Box 550
Medford, OR 97501

The applicant owns and operates a plywood plant at Grants Pass.

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 three Burley Industries scrubbers and air seal systems to control emissions from three veneer dryers.

Request for Preliminary Certification for Tax Credit was made on July 11, 1978, and approved on July 18, 1978.

Construction was initiated on the claimed facility on October 25, 1978, completed on December 1, 1978, and the facility was placed into operation on December 1, 1978.

Facility Cost: $264,793 (Accountant's Certification was provided).

3. Evaluation of Application

These Burley Industries scrubbers are designed to control emissions from three veneer dryers. This project has been inspected and complies with all Department emission limits. The primary purpose of this equipment is air pollution control. Therefore 80% or more of the cost is allocable as a pollution control 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 was required by the Department of Environmental Quality and is necessary to satisfy the intents and purposes of ORS Chapter 468, and the rules adopted under that chapter.

e. The primary purpose of this equipment is air pollution control. Therefore 80% or more of the cost is allocable to pollution control.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $264,793 with 80% or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1101.

F. A. Skirvin:l
(503) 229-6414
December 6, 1979

AL0294

Appl T-1102
Date 11-27-79

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Publishers Paper Company
Oregon City Division
419 Main Street
Oregon City, OR 97045

The applicant owns and operates a sulphite pulp and paper mill at Oregon City.

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 mist eliminator system installed on the sulphite recovery boiler:

Mist Eliminator Pads	$13,695
Piping	5,055
Installation	6,084
	$24,834

Request for Preliminary Certification for Tax Credit was made on December 20, 1978, and approved on December 28, 1978.

Construction was initiated on the claimed facility on December 25, 1978, completed on December 27, 1978, and the facility was placed into operation on December 28, 1978.

Facility Cost: $24,834 (Accountant's Certification was provided).

3. Evaluation of Application

The Department required Publishers Paper Company to change their particulate sampling method to the EPA sampling method. The EPA method gave higher results than the other method, so that the recovery boiler was not consistantly in compliance with the four pound per air dried ton limit. The mist eliminator system was installed to bring the recovery boiler into continual compliance.

The facility has been inspected by the Department and has been found to be operating satisfactorily. The monthly monitoring reports submitted by the company indicate that the recovery boiler is in compliance with Department limits.

The material collected by the facility has no economic value. The material is mainly soluable salts which are dissolved in the water droplets which are collected. This material is not necessary for the process.

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 was required by the Department and 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 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 $24,834 with 80 percent or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-1102.

F. A. Skirvin:f
(503) 229-6414
November 29, 1979

AF0217

Appl T-1103
Date 11-16-79

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Bickford Orchards, Inc.
1930 Highway 35
Hood River, OR 97031

The applicant owns and operates an apples and pears commercial orchard at Hood River, 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 two tropic breeze wind machines used for frost damage protection. One machine is gasoline powered, serial No. A 39375 and the other is electric powered, Serial No. A 39397.

Request for Preliminary Certification for Tax Credit was made on 11-6-78, 1-31-79, for the gasoline and electric powered machines respectively, and approved on 11-17-78, 2-14-79 for the gasoline and electric powered machines respectively.

Construction was initiated on both items of the claimed facility on 2-12-79 and completed on 3-15-79, and the facility was placed into operation on 3-15-79.

Facility cost: $24,219.01 (Accountant's Certification was provided).

3. Evaluation of Application

There is no law limiting the use of fuel-oil fired heaters to control frost damage to fruit trees even though the heaters produce significant smoke and soot air contaminant emissions. The orchard farmers desire a secure, long-range solution to frost control that includes the reduction or elimination of the smoke and soot nuisance.

An orchard fan blows warm air from above the trees--when there is a temperature inversion--down into the trees. The fans have proven effective in the Hood River area where frost control is needed on an average of 30 hours per year. One orchard fan serves 10 acres and reduces the number of heaters required for frost protection from 340 heaters to 100 perimeter heaters, a 70% reduction.

The operating costs of the claimed facility is slightly greater than the savings in the cost of fuel oil. The operating costs consist of the fuel cost using the fan, depreciation over 10 years and no salvage value, plus the average interest at 11% on the undepreciated balance.

4. Summation

a. Facility was constructed in accordance with 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. Since the operating cost of the claimed facility is slightly greater than the savings in fuel oil, 80% or more of the cost is allocated to pollution control.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $24,219.01 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-1103.

F. A. Skirvin:w
(503) 229-6414
November 21, 1979
AW755

Appl. T-1104
Date 11/28/79

STATE OF OREGON
Department of Environmental Quality

TAX CREDIT APPLICATION REVIEW REPORT

1. Applicant

Rough and Ready Lumber Company
Box 519
Cave Junction, OR 97523

The applicant owns and operates a sawmill at Cave Junction, Oregon. Application was made for tax credit for a solid waste pollution control facility.

2. Description of Claimed Facility

The facility described in this application is a wood waste-fired boiler and related material handling equipment. Claimed equipment includes:

A. 600 BHP Federal Firetube Boiler

B. High Pressure Pneumatic Conveying System

C. Wellons Posi-Flo Storage Bin

D. Wellons Heat Dump System

Request for Preliminary Certification for Tax Credit was made July 28, 1978, and approved in two phases on November 30, 1978, and June 27, 1979. Construction was initiated on the claimed facility during September, 1978, completed May 25, 1979, and the facility was placed into operation on May 28, 1979.

Facility Cost: $510,549.02 (Accountant's Certification was provided).

3. Evaluation of Application

The company generates wood waste (pine and fir sawdust) which it previously landfilled. There is no market for pine sawdust and the market for fir sawdust was marginal because of the plant's distance from potential buyers. The new boiler and related equipment allows the company to utilize approximately 70 percent of their sawdust production as fuel and has virtually eliminated their need for a

landfill. The remaining 30 percent or their sawdust is now sold as a package along with wood chips. In addition, the company anticipates occasionally using some previously stockpiled woodwaste for fuel. The company's application for tax credit initially included their dry kilns as part of the system. At its June 27, 1979, meeting the Commission denied Preliminary Certification for the dry kilns and confirmed the staff's earlier approval of the boiler, steam dump station, condensate return system, and related equipment. The current application seeks credit only for those items for which Preliminary Certification was granted.

4. Summation

A. The facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

B. The facility was constructed on or after January 1, 1973, as required by ORS 468.165(1)(c).

C. The facility is designed for and is being operated, to a substantial extent, for the purpose of preventing, controlling or reducing solid waste.

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

E. 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 $510,549.02 with 100 percent allocated to pollution control be issued for the facility claimed in Tax Credit Application Number T-1104.

William H. Dana:n
229-5913
SN0171
November 28, 1979

Application No. T-1111

Date: November 30, 1979

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX CREDIT APPLICATION REVIEW REPORT

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1. Applicant

Publishers paper Company
Oregon City Division
419 Main Street
Oregon City, OR 97045

The applicant owns and operates a pulp and paper mill at Oregon City, Oregon. Application was made for tax credit for a solid waste pollution control facility.

2. Description of Claimed Facility

The facility described in this application is an expansion and upgrading of an existing newsprint deinking facility. Major new equipment components include a repulper with feed conveyor, an air flotation clarifier, tanks, electrical equipment and a landing dock.

Request for Preliminary Certification for Tax Credit was made on February 20, 1978, and approved on May 3, 1978. Construction was initiated on the claimed facility during May 1978, and was completed and the facility placed into operation on September 11, 1979.

Facility Cost: $970,996 (Accountant's certification was provided).

3. Evaluation of Application

This is an expansion and upgrading of an existing newsprint deinking facility. The existing facility was dependent upon other mill processes and operated approximately 300 days per year. Its production capacity was approximately 40 tons per day. The upgraded system can operate as an independent facility and produce 53 tons of pulp per day. The facility now utilizes approximately 7,200 tons more waste newspaper per year than the pilot operation did.

4. Summation

A. The facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

B. The facility was under construction on or after January 1, 1973, as required by ORS 468.165 (1) (c).

C. The facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing solid wastes.

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

E. The portion of the facility cost that is properly allocable to pollution control is 100%.

5. Director's Recommendation

Based upon the findings in the summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $990,996 with 100 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number T-1111.

William H. Dana:w
229-5913
November 30, 1979

SW0208

Appl. T-1112

Date: 12-03-79

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX CREDIT APPLICATION REVIEW REPORT

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1. Applicant

Publishers Paper Company
Tillamook Division
419 Main Street
Oregon City, OR 97045

The applicant leases a lumber plant at Tillamook, Oregon. Application was made for tax credit for a solid waste pollution control facility.

2. Description of Claimed Facility

The facility described in this application is an electrical energy generating facility, a cooling tower, boiler modifications to add superheating capability and ancillary modifications, equipment and structures. It includes the installed cost of the following components:

1.	Pumps, piping, etc.	$ 493,982
2.	Structure	360,321
3.	Electrical components	325,223
4.	Turbine generator (used)	285,611
5.	Cooling tower	143,246
6.	Engineering services	127,709
7.	Instrumentation	109,405
8.	Fuel handling systems	102,704
9.	Kiln steam controls	24,009
10.	Site preparation	8,882
11.	Miscellaneous	7,626
	TOTAL Project Cost	$1,988,718

Request for Preliminary Certification for Tax Credit was made on April 11, 1978, and approved on April 28, 1978.

Construction was initiated on the claimed facility in April 1978, and was completed and placed into operation on December 21, 1978.

Facility Cost: $1,988,718 (Accountant's certification was provided).

3. Evaluation of Application

Publishers Paper Company submitted a Notice of Construction to the Department which was approved on April 28, 1978.

The claimed facility was installed to produce electrical energy from wood wastes. Prior to installation, the existing boiler was fired at thirty percent (30%) of rated capacity. The particulate control device (a wet scrubber) had been sized for operation at one hundred percent (100%) of rated capacity. Approximately ninety thousand tons per year (90,000 TPY) of additional wood wastes are consumed in the boiler since the electrical energy generating equipment was installed. The facility now produces an average of 4,500 kilowatts of electricity.

The economic value of the electricity now produced is estimated at $700,000 per year.

The entire claimed facility was installed to convert wood wastes into electrical energy.

4. Summation

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

B. Facility was under construction on or after January 1, 1973, as required by ORS 468.165 (1) (c).

C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing solid waste.

D. Facility satisfies the intent and purposes of ORS, Chapter 459 and the rules adopted under that chapter.

E. The portion of the facility cost that is properly allocable to pollution control is one hundred percent (100%).

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $1,988,718 with one hundred percent (100%) allocated to pollution control, be issued for the facility claimed in Tax Credit Aplication Number T-1112.

E. A. Schmidt:w
229-5913
December 3, 1979 SW0260

Appl. T-1113

Date: 11-30-79

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX CREDIT APPLICATION REVIEW REPORT

---

1. Applicant

Publishers Paper Company
Newberg Division
419 Main Street
Oregon City, OR 97045

The applicant owns and operates a pulp and paper mill at Newberg, Oregon. Application was made for tax credit for a solid waste pollution control facility.

2. Description of Claimed Facility

The facility described in this application is a 100 ton per day deinking plant. Major equipment and support facilities include a storage warehouse with rail delivery facilities, a repulping unit with feed conveyor, cleaning screens, extractors, a rotating disc filter, a flotation clarifier and chemical mixing facilities.

Request for Preliminary Certification was made May 5, 1978, and approved July 12, 1978. Construction was initiated on the claimed facility during July 1978, and was completed and the facility placed into operation on June 15, 1979.

Facility Cost: $8,785,186 (Accountant's certification was provided).

pollution control.

3. Evaluation of Application

The facility utilizes solid waste (waste newsprint) at a rate of approximately 40,000 tons per year. This contribution will replace an equivalent amount of conventionally produced pulp at an energy savings of approximately 1,800 KWH per ton of pulp. The waste paper is repulped, chemically deinked, screened and washed to remove contaminants. The cleaned pulp is then used in the production of new newsprint.

Currently there is not enough newsprint being recycled in Oregon to totally supply the plant's needs and waste paper is being imported from neighboring states. It is believed however, that the presence of the plant will enhance the incentive for increased recovery of newsprint in Oregon by providing a new market for the material.

4. Summation

A. The facility was constructed in accordance with the requirements of ORS 465.175, regarding preliminary certification.

B. The facility was under construction on or after January 1, 1973, as required by ORS 468.165 (1) (c).

C. The facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing solid waste.

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

E. 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 $8,785,186 with 100 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number T-1113.

William H. Dana:w
229-5913
November 30, 1979

SW0170

Appl T-1114
Date 11-19-79

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Lyle S. McAlexander
Mt. View Orchards
6670 Trout Creek Road
Parkdale, OR 97041

The applicant owns and operates an apples and pears commercial orchard at Parkdale, 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 four electric-powered orchard rite wind machines used for frost damage protection. The serial numbers of the tower top gearbox are: 5X812, 5X813, 5X815 and 5X816.

Request for Preliminary Certification for Tax Credit was made on 12-07-78, and approved on 12-22-78.

Construction was initiated on the claimed facility on December 15, 1978, completed in April, 1979, and the facility was placed into operation in July, 1979.

Facility Cost: $50,777.97 (Accountant's Certification was provided).

3. Evaluation of Application

There is no law limiting the use of fuel oil-fired heaters to control frost damage to fruit trees, even though the heaters produce significant smoke and soot air contaminant emissions. The orchard farmers desire a secure long-range solution to frost control that includes the reduction or elimination of the smoke and soot nuisance.

An orchard fan blows warm air from above the trees--when there is a temperature inversion--down into the trees. The fans have proven effective in the Hood River area where frost control is needed on an average of 30 hours per year. One orchard fan serves 10 acres and reduces the number of heaters required for frost protection from 340 heaters to 100 perimeter heaters, a 70% reduction.

The operating cost of the claimed facility is slightly greater than the savings in the cost of fuel oil. The operating cost consists of the fuel cost using the fan, the depreciation over 10 years, and no salvage value plus the average interest at 11% on the undepreciated balance.

4. Summation

a. Facility was constructed in accordance with 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. Since the operating cost of the claimed facility is slightly greater than the savings in fuel oil, 80% or more of the cost is allocated to pollution control.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $50,777.97 with 80% or more allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-1114.

F. A. Skirvin:w
(503) 229-6414
November 20, 1979
AW756

Appl. T-1125

Date 11/7/79

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX CREDIT APPLICATION REVIEW REPORT

---

1. Applicant

Champion International Corp.
Champion Building Products
P.O. Box 10228
Eugene, OR 97440

The applicant owns and operates a sawmill and planning mill at Odell, Oregon. Application was made for tax credit for a solid waste pollution control facility.

2. Description of Claimed Facility

The facility described in this application consists of a West Salem Classifier, one belt and two chain conveyers and related motors, structural steel and concrete. The facility allows for the processing of wood residues into a usable product.

Request for Preliminary Certification for Tax Credit was made December 6, 1977 and approved January 6, 1978. Construction was initiated on the claimed facility on January 10, 1978. The facility was completed and placed into operation on June 30, 1978.

Facility cost is $54,150.00 (accountant's certification was provided).

3. Evaluation of Application

Prior to installation of the claimed facility, the company's excess wood residuals were being stockpiled, landfilled or burned in a wigwam waste burner. The new system allows the company to mix planer shavings with hogged bark and to collect sawdust resulting in a marketable mixed wood fuel. Between 100 and 300 units of wood waste a week are now salvaged.

4. Summation

A. The facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

B. The facility was constructed on or after January 1, 1973, as required by ORS 468.165(1)(c).

C. The facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling or reducing solid waste.

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

E. The portion of the facility cost that is properly allocable to pollution control is 100%.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $54,150.00 with 100 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number T-1125.

William H. Dana:dro
229-5913
11/7/79

Appl T-1130
Date 11-8-79

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Anodizing, Incorporated
Architectural Division
Box 11263
Portland, OR 97211

The applicant owns and operates an anodizing plant coating aluminum extrusions and sheets at 7933 Northeast 21st Avenue in Portland.

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 neutralization system to adjust pH of anodizing waste effluent before discharging to the city of Portland Sanitary Treatment System and consists of:

a. Concrete collection ditch
b. pH automatic controller/recorder (chemtrix model 48-R)
c. Stainless steel storage tanks and mixing chamber

Request for Preliminary Certification for Tax Credit was made April 26, 1979, and approved May 8, 1979. Construction was initiated on the claimed facility May 9, 1979, completed June 10, 1979, and the facility was placed into operation June 18, 1979.

Facility Cost: $9,517.73 (Suppliers Statements were provided).

3. Evaluation of Application

Department of Environmental Quality required the installation of this facility to meet pH parameters and other aspects of water quality before discharge to the Columbia Slough and later to the municipal sanitary system. Discharge to the sanitary sewer has been completed. There is no return on investment from this Pollution Control 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 was required by the Department of Environmental Quality and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.

e. Applicant claims 80 percent or more of costs allocable to pollution control.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $9,517.73 with 80 percent or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1130.

C. K. Ashbaker:f
(503) 229-5325
November 19, 1979

WF0111

Appl T-1133
Date October 26, 1979

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Weyerhaeuser Company
Eastern Oregon Region
Box 9
Klamath Falls, OR 97601

The applicant owns and operates a plant manufacturing lumber, plywood, particleboard,and hardboard at Klamath Falls on Highway 66.

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

2. Description of Claimed Facility

The facility described in this application is 5,730 feet of ten-inch ductile iron underground pressure pipeline to carry industrial waste water from the hardboard plant, sawmill, and water power plant to the waste water treatment facility.

Request for Preliminary Certification for Tax Credit was made November 1, 1976, and approved December 9, 1976. Construction was initiated on the claimed facility December 15, 1976, completed June 5, 1977, and the facility was placed into operation May 20, 1977, before final completion.

Facility Cost: $45,707 (Accountant's Certification was provided).

3. Evaluation of Application

The applicant claims that the new facility (replacing open ditch flow adjacent to the Klamath River) insures against spills to the river. Staff verifies this to be fact and considers waste water management at this plant to be much improved. There is no return on investment from this pollution control 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 was required by the Department of Environmental Quality and is necessary to satisfy the intents and purposes of ORS Chapter 468 and the rules adopted under that chapter.

e. Applicant claims 80 percent of costs allocable to pollution control, and that the pipelines only function is to convey industrial waste water to treatment efficiently.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of $45,707 with 80 percent or more allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1133.

C. K. Ashbaker:ad
(503) 229-5325
November 6, 1979

Environmental Quality Commission

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

Victor Atiyeh
Governor

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. E, December 14, 1979, EQC Meeting

Public Hearing on Portland General Electric's Bethel Combustion Turbine Facility, Renewal of Air Contaminant Discharge Permit

Background

Portland General Electric (PGE) has applied for renewal of its Air Contaminant Discharge Permit for the Bethel turbine plant which is located east of Salem. The existing permit was to expire on December 31, 1979, or after 750 hours of emergency operation over the two-year permit period, which ever occurred first. The Commission granted PGE a variance, to the restriction to emergency operation only, at the October 19th meeting and a recent special permit by the Department has suspended the 750 hour limit. Operation has been allowed on natural gas through December 15, 1979.

PGE has requested several changes to the permit, including deleting the restriction to emergency operation only (Condition 9), dropping the ambient air monitoring program (Condition 15), extending operation to 2000 hours per year (Condition 13) and allowing turbine start-up on distillate fuel (Condition 4).

Although PGE has demonstrated compliance with the air quality and noise emission limits in the existing permit, five Bethel area families have continued to register noise complaints. Approximately 60 homes are within 2,500 feet of the plant.

Evaluation - Air Quality, Proposed Permit Changes

The projection of up to 2,000 hours per year has resulted in several changes to permit conditions, in addition to those requested by PGE. The proposed changes are as follows:

1. Permit Condition 1 - PGE requested removal of the phrases "at all times" and "at full efficiency and effectiveness" from the condition. PGE feels it is not possible to maintain any equipment at full efficiency and effectiveness at all times and that the intent of the condition is fulfilled without the language. The Department staff proposes to retain the phrases to assure that all steps are taken to minimize turbine emissions.

2. Permit Condition 3 - The existing permit did not specify fuels to be burned since, previously, the plant was operated primarily on distillate fuel oil and only for several hundred hours per year. Condition 3 is a new condition that specifies fuel types and limits operation to natural gas only until PGE determines through computer modeling the impact of extended operation on fuel oil. An ambient monitoring program for particulate, oxides of nitrogen and sulfur oxides has been operated for over five years. Although the monitors have shown low pollutant levels, the actual impact of extended operation on oil must be determined through modeling. Modeling is necessary to assure extended operation on oil will not jeopardize the ozone attainment strategy for the Salem area and to determine the extent of the use of the SO_2 PSD increment should higher sulfur fuel be used.

3. Permit Condition 4 - PGE requested a change to allow start-up of the turbines on distillate fuel oil. Observations of such starts by the staff has shown visible emissions to be in excess of 40 percent opacity for three to five minute periods. Consequently, turbine start-up should be limited to natural gas or equivalent (propane or other gaseous fuel).

4. Permit condition 9 - PGE requested removal of the condition, which restricted operation of Bethel to emergency use only. The request was on the basis that the plant was in compliance with all permit conditions and that unrestricted use would be necessary to meet the public's energy requirements. The Department staff has met several times with PGE and concurs with removal of the condition. Critically low stream flows combined with the high cost of buying power, if available at all, have necessitated the increased need for Bethel.

5. Permit Condition 13 - PGE has projected a 95 percent chance that energy requirements from the Bethel plant will not exceed 2,000 hours per year. The proposed permit condition has been modified to allow operation for 2,000 hours per year, with final permit expiration in five years, on December 31, 1984.

6. Permit Condition 15 - The existing permit required PGE to conduct a particulate, sulfur dioxide, and oxides of nitrogen ambient monitoring program in the vicinity of the plant. PGE has requested relief from the monitoring on the basis of the extremely low levels of sulfur dioxide measured and the lack of any apparent correlation between plant operation and measured levels of oxides of nitrogen and particulate. The Department staff agrees that the monitoring program should be discontinued, however the impact of operation for extended periods on oil remains to be demonstrated through modeling.

Evaluation - Noise

Since the Bethel plant became operational in 1973, a number of noise and vibration or "sensation" complaints have been received from Bethel area residents. In the past four years, nearly all complaints have been from five families who have objected to the installation and operation of the plant near their homes. Approximately 60 homes are within 2,500 feet of the turbines.

In April, 1973, the Department specified maximum sound pressure levels at a distance of 400 feet from the plant. The noise was found to peak in the 31.5 Hz octave band and the plant exceeded the 75 dB limit in the 31.5 Hz band by about 5 dB. PGE was required to install mufflers on the turbines and to take additional noise suppression measures, such as "shot-creting" the turbine housings.

The existing noise limits in the permit are substantially the same as the octave band limits adopted by the Commission in 1974 for industrial and commercial noise sources. The Bethel plant is limited to 76.8 dB during the daytime (7:00 a.m. to 10 p.m.) and 73.8 dB during the nighttime (10:00 p.m. to 7:00 a.m.) in the 31.5 Hz octave band, when measured at a distance of 400 feet from the center of the turbines. The nighttime noise standard limits operation to only one turbine at night.

Subjective noise evaluations have been done in the neighborhood and have shown the plant to be just faintly audible in the nearest homes, provided no background noises, such as a refrigerator running or leaves blowing, occurred. The noise consists of a low rumble and occasional whine. Noise measurements at the nearest privately-owned home have shown sound levels of no more than 44 dBA during turbine operation.

On October 29, 1979, staff from the Willamette Valley Region conducted a door-to-door survey in the Bethel neighborhood to obtain additional input on the plant noise. The results of the survey are summarized below and outlined in more detail in Attachment 2:

Homes Surveyed	Families Objecting to Increased Operation	Families Not Objecting to Operation
73	16 (22%)	57 (78%) (includes 30 homes (41%) not aware of plant operation)

Nearly all of the objections to increased operation were from families northeast of the plant, at distances greater than 1,500 feet. At these distances, the plant noise may or may not be audible, depending upon background noises.

Five families in the Bethel area have filed a lawsuit against PGE seeking general and punitive damages and injunctive relief. Over the past three years, the trial has been delayed three or more times at the request of the plaintiffs. In early 1978, another continuance was denied and the suit was withdrawn. The plaintiffs apparently intend to refile. However, PGE's attorney may then seek a demurrer which would determine the acceptability of the litigation.

Summation

1. Portland General Electric (PGE) has applied for renewal of its Air Contaminant Discharge Permit for the Bethel turbine plant, which is located east of Salem.

2. PGE has projected increased need for the Bethel plant, up to 2,000 hours per year, to satisfy energy demands. A variance to Permit Condition No. 9, which restricted use to emergency use only, was granted at the October 19th Commission Meeting. Condition No. 9 has been deleted from the proposed renewal permit and other proposed changes are:

   a. A new condition, No. 3, has been added to specify use of natural gas and distillate fuels only. Further, distillate fuels are not to be used until the impact of extended operation on fuel oils is determined by PGE through computer modeling.

   b. Condition No. 4 has been changed to require the turbines to be started on natural gas "or equivalent." Staff observations have shown excessive visible emissions during attempts to start the turbines on distillate fuel. PGE had asked to be allowed to start the turbines on oil, should gas not be available.

   c. Condition No. 13 has been modified to allow up to 2,000 hours of operation per year, with final permit expiration on December 31, 1984.

   d. Condition No. 15 has been changed to relieve PGE of the requirement for monitoring ambient levels of particulate, oxides of nitrogen and sulfur dioxide, due to the low levels of sulfur dixoide measured and the lack of correlation between plant operation and levels of oxides of nitrogen and particulate.

3. The Bethel plant has been found to be in compliance with the air contaminant and noise emission limits contained in the existing permit.

4. Complaints of noise and vibration have continued to be received from five Bethel area families. The five families filed suit seeking general and punitive damages and injunctive relief. The trial has been delayed several times and the suit was withdrawn in early 1978, but may be refiled.

5. Subjective noise evaluations in the neighborhood have shown the plant noise to be just faintly audible within the closest homes. Further, a neighborhood survey by Department staff has shown that only 16 families out of 73 surveyed objected to increased plant operation. The 73 families surveyed included 30 families which were not aware of plant operation.

Director's Recommendation

Based upon the summation, it is proposed to issue the attached modified permit, which includes allowing PGE up to 2,000 hours of operation per year. In view of the Commission's involvement with the Bethel turbine permit historically, Commission confirmation of the proposed action or other guidance is sought.

Bill

WILLIAM H. YOUNG

D. St.Louis
AA0158
378-8240
November 23, 1979
Attachments 1. Proposed renewal Air Contaminant Discharge Permit and renewal application.

2. Results of neighborhood noise survey, survey area, and questionnaire.

Attachment 1

Proposed Renewal Permit and Renewal Application

PROPOSED

File: 24-2318
Appl: 1705
Date:

Department of Environmental Quality
Air Quality Control Division

AIR CONTAMINANT DISCHARGE PERMIT APPLICATION REVIEW REPORT

PORTLAND GENERAL ELECTRIC COMPANY
121 S.W. Salmon Street
Portland, Oregon 97204

Background

1. Portland General Electric operates an electric power generation facility located at 5765 State Street, Salem.

2. Existing visible and particulate emission sources at the facility consist of four Pratt and Whitney FT4C-1 combustion gas turbines.

3. The facility has the capability to produce 127 megawatts at peak for emergency use.

4. In previous years, the facility has been restricted to emergency operation only. PGE has requested that the emergency restrictions be deleted from the renewal permit. The present shortage of power and restriction of fuel oil availability has prompted PGE to request approval for increased usage of the Bethel plant.

5. The turbines can operate on either natural gas or distillate fuel oil.

Evaluation

6. The emissions from the turbines have been determined to be in compliance with the Department of Environmental Quality emission limitations.

7. The permit also specifies ambient noise levels which cannot be exceeded.

Recommendation

8. It is recommended that the proposed permit be approved for issuance to Portland General Electric Company.

cc: Willamette Valley Region, Salem

DSL

PROPOSED

Permit Number: 24-2318
Expiration Date: December 31, 1984

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
522 S.W. Fifth Avenue, Portland, Oregon 97204
Mailing Address: P.O. Box 1760, Portland, Oregon 97207
Telephone: (503) 229-5696

Issued in accordance with the provisions of ORS 468.310

ISSUED TO: PORTLAND GENERAL ELECTRIC COMPANY Power Resources 121 SW Salmon Street Portland, OR 97204 PLANT SITE: Bethel Plant 5765 State Street Salem, OR ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY William H. Young, Director — *Date*	REFERENCE INFORMATION Application No. 1705 Date Received: November 2, 1979 Other Air Contaminant Sources at this Site: Source / SIC / Permit No.

SOURCE(S) PERMITTED TO DISCHARGE AIR CONTAMINANTS:

Name of Air Contaminant Source	Standard Industry Code as Listed
ELECTRIC POWER GENERATION	4911

Permitted Activities

Until such time as this permit expires or is modified or revoked, Portland General Electric Company is herewith permitted in conformance with the requirements, limitations, and conditions of this permit to discharge treated exhaust gases containing air contaminants from its four (4) Pratt and Whitney (FT4C-1 combustion turbines) fuel burning devices located at Bethel substation, 5765 State Street, Salem, Oregon, including emissions from those processes and activities directly related or associated thereto.

Compliance with the specific requirements, limitations and conditions contained herein shall not relieve the permittee from complying with all rules and standards of the Department and the laws administered by the Department.

For Requirements, Limitations and Conditions of this Permit, see attached Sections

Performance Standards and Emission Limits

1. The permittee shall at all times maintain and operate all air contaminant generating processes and all contaminant control equipment at full efficiency and effectiveness such that the emission of air contaminants are kept at the lowest practicable levels.

2. Emission of air contaminants shall not exceed any of the following when operating at base load except where otherwise specified.

   a. Particulate matter restrictions:

      (1) 6.8 kilograms (15 pounds) per hour of particulate for any single turbine when distillate fuel is burned.

      (2) 3.2 kilograms (7 pounds) per hour of particulate for any single turbine when natural gas is burned.

   b. Nitrogen oxides restrictions:

      (1) 145.1 kilograms (320 pounds) per hour of nitrogen oxides (NO_x) for any single turbine when distillate fuel is burned.

      (2) 49.9 kilograms (110 pounds) per hour of nitrogen oxides (NO_x) for any single turbine when natural gas is burned.

   c. Carbon monoxide restrictions:

      (1) 7.9 kilograms (17.5 pounds) per hour of carbon monoxide (CO) for any single turbine burning distillate fuel.

      (2) 95.3 kilograms (210 pounds) per hour of carbon monoxide (CO) for any single turbine burning natural gas.

      (3) 20.4 kilograms (45 pounds) per hour of carbon monoxide (CO) for any single turbine at half load burning distillate fuel.

      (4) 81.6 kilograms (180 pounds) per hour of carbon monoxide (CO) for any single turbine at half load burning natural gas.

   d. Visible smoke emissions from each stack shall be minimized such that Von Brand Reflectance Number 95 or better is achieved at all times and shall not exceed 10 percent opacity except for the presence of uncombined water.

Special Conditions

3. The Permittee shall operate the turbines only on natural gas and distillate fuel oil. Prior to operation on oil, the Permittee shall evaluate through computer modeling the impact of plant emissions on ambient air standards for extended operation on oil.

4. [~~3.~~] The permittee shall store the petroleum distillate having a vapor pressure of 12mm Hg (1.5 psia) or greater under actual storage conditions in pressure tanks or reservoirs or shall store in containers equipped with a floating roof or vapor recovery system or other vapor emission control device. Further, the tank loading facilities shall be equipped with submersible filling devices or other vapor emission control systems. Specifically, volatile hydrocarbon emissions from the 200,000 barrel fuel storage tanks shall not exceed 34 kilograms (75 pounds) per day under normal storage conditions.

5. [~~4.~~] Turbines shall always be started on natural gas or equivlent.

6. [5.] The permittee shall burn the lowest sulfur and ash content distillate oil available, but in no case shall a lower grade than ASTM No. 2 distillate be burned.

7. [~~6.~~] The sulfur content of the fuel burned shall not exceed 0.3 percent by weight at any time.

8. [~~7.~~] Fuel delivery by truck shall be kept to a minimum and only between the hours of 9 a.m. and 2 p.m. and 5 p.m. and 9 p.m. For specific instances with good cause shown, the Department may authorize other hours.

9. [~~8.~~] Operation of any combustion turbine at other than power output of 15 to 30 megawatts (-1.1 degrees C. ambient basis) shall not exceed more than five percent of the operating time.

9. The permittee shall limit operation of the combustion turbines to emergency conditions in accordance with the following criteria:

a. The permittee shall operate the Bethel plant only if failure to operate the plant shall result in denial of service to customers entitled to firm service. Prior to any operation PGE shall determine that;

(1) No other resources normally operated by PGE are available,

(2) Power cannot be obtained under any power exchange contracts,

(3) Diligent effort has been made to generate or purchase power from any other resources which may be reasonably brought on line. "Reasonably" shall not be construed to require use of units which are clearly excessive in cost to put into operation or to operate relative to the benefits expected, or which threaten the environment to a greater extent than operation of the Bethel plant.

b. If PGE is called upon to supply power to persons outside of its service territory by virtue of any agreement it may have with others, PGE shall diligently pursue with other contract signatories all alternative sources of power covered by the contract and shall exhaust all reasonable possibilities for purchasing power for resale before using combustion turbines at Harborton or Bethel.

c. Nothing in Paragraphs a or b above shall be construed to hamper PGE's discretion to operate Bethel in response to an unanticipated breakdown of facilities or other emergency requiring immediate generation to satisfy firm power requirements; provided that PGE shall at the first reasonable opportunity change its dispatch of generation capacity to comply with Paragraphs a and b.

Nor shall Paragraphs a and b be construed to interfere with required turbine maintenance, including periodic exercise under Special Condition 12 below.

d. At the earliest reasonable opportunity, either prior to an anticipated emergency or immediately after startup of the Bethel units if the emergency cannot be anticipated, PGE shall advise the Department and shall demonstrate the nature and extent of such emergency to the satisfaction of the Department. A written report on the emergency operation including the availability and cost of power from all other sources available to PGE shall be submitted to the Department. PGE may be required to participate in discussion of any operation of Bethel with representatives of the Public Utility Commissioner, Department of Energy, Bonneville Power Administration or any other interested agency or utility.

10. The permittee shall provide NO_x control to meet limits prescribed by the Department when the Department determines NO_x control is practicable. NO_x control will not be required if the operation of the facility is less than 200 hours per year. The permittee shall submit semi-annual progress reports to the Department on the developments in practicable NO_x control for turbines.

11. The permittee shall comply with the following requirements regarding noise:

a. Sound pressure levels emitted from the turbines shall not exceed the limitations specified in Table 1 of this condition, when measured at any location 400 feet from the geometric center of the turbine engine installation. Sound pressure levels may be measured at a distance other than 400 feet and corrected, according to the inverse square law, to a reference distance of 400 feet.

Table 1

Median Sound Pressure Levels at 400 Feet

Octave Band Center Frequency, Hz	7 a.m. - 10 p.m.	10 p.m. - 7 a.m.
31.5	76.8	73.8
63	73.8	70.8
125	69.8	64.8
250	63.8	58.8
500	60.8	54.8
1000	57.8	51.8
2000	54.8	48.8
4000	51.8	45.8
8000	48.8	42.8

b. The facility operation shall be limited to operation of both twin paks at base load during the hours of 7 a.m. to 10 p.m. and to one twin pak during the hours of 10 p.m. and 7 a.m. at a load which the Department acknowledges in writing complies with applicable noise limits in (a) above.

c. The permittee shall demonstrate compliance with the limits in (a) above annually and shall submit data to the Department in conformance with the applicable measurement procedures. This data submittal shall also include information sufficient to determine power load factors as required in (b) above. The Department shall be notified prior to such compliance tests.

12. Periodic scheduled turbine engine exercise to insure proper operation of the facility and prevent equipment damage shall be allowed in accordance with an exercise schedule approved by the Department in writing.

13. [~~The permit shall expire when commercial operation of the Bethel facility exceeds 750 hours or by December 31, 1979, whichever occurs first.~~] The Permittee shall limit operation of the plant to 2000 hours of commercial operation per year. Hours of commercial operation shall be computed from start-up to shutdown no matter how many engines are operated nor their load factor. Engine exercise allowed by Condition 12 shall not be considered as commercial operation for the purposes of this condition.

Compliance Schedule

None required.

Monitoring and Reporting

14. The permittee shall regularly monitor and inspect the operation of the plant to insure that it is operated in continual compliance with the conditions of this permit. In the event that any monitoring equipment becomes inoperative for any reason, the permittee shall immediately notify the Department of said occurrence. Specifically the permittee shall:

    a. Calibrate, maintain and operate in a manner approved by the Department an emission monitoring instrument for continually monitoring and recording emissions of oxides of nitrogen.

    b. Calibrate, maintain and operate in a manner approved by the Department an emission monitoring instrument for continually monitoring and recording emissions of carbon monoxide.

    c. Obtain and record representative sulfur analysis and ash analysis by methods approved by the Department of fuel oils as burned for every delivery lot or whenever the source of supply is changed. In addition, the permittee shall maintain facilities for obtaining representative samples from the fuel handling system at the plant site as approved by the Department and provide with the Department analysis of periodic samples upon request.

d. Maintain and submit to the Department a log of operating incorporating, but not limited to, the following parameters:

(1) Time of operation.

(2) Quantities and types of fuel used relative to time of operation.

(3) Electrical output relative to time of operation.

(4) Stack emissions relative to time of operation.

(a) oxides of nitrogen (NO_x) in ppm and pounds per hour

(b) carbon monoxide (CO) in ppm and pounds per hour

(c) percent oxygen (O_2)

~~[(5) Ambient conditions relative to time of operation.]~~

~~[(a) oxides of nitrogen (NO_x) in ppm and micrograms per cubic meter]~~

~~[(b) sulfur dioxide (SO_2) in ppm and micrograms per cubic meter]~~

~~[(c) particulate concentration in ppm and micrograms per cubic meter]~~

~~[(6) Wind direction and velocity relative to time of operation.]~~

~~[(7) Ambient temperature, pressure and humidity.]~~

(5) ~~[(8)]~~ This log is to be submitted on or before the 25th of the month following the month logged and will indicate the instantaneous, hour by hour conditions existent at the plant site and ambient monitoring station. Any malfunctions occurring and the duration shall be noted in the log. Stack and ambient data will be submitted whether or not the turbines are operating.

~~[15. Portland General Electric Company shall conduct a particulate, sulfur dioxide and oxides of nitrogen monitoring program in the vicinity of the Bethel site to determine ground level concentrations. The monitoring program shall be conducted in a manner approved by the Department. Appropriate meteorological parameters shall be determined. These data are to be incorporated in the log specified in condition 14-d.]~~

15. ~~[16.]~~ In the event that the permittee is temporarily unable to comply with any of the provisions of this permit, the permittee shall notify the Department by telephone as soon as is reasonably possible, but not more than one hour, of the upset and of the steps taken to correct the problem. Operation shall not continue without approval nor shall upset operation continue during Air Pollution Alerts, Warnings, or Emergencies or at any time when the emissions present imminent and substantial danger to health.

Fee Schedule

16. ~~[17.]~~ The Annual Compliance Determination Fee for this permit is due on December 1 of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

Emergency Emission Reduction Plan

17. ~~[18.]~~ The permittee will implement an emission reduction plan during air pollution episodes when so notified by this Department.

18. ~~[19.]~~ As a minimum, the permittee will implement the following emission reduction plan during air pollution episodes when so notified by the Department.

a. ALERT: Prepare to shut down all turbines.

b. WARNING: Shut down all combustion turbines.

c. EMERGENCY: Continue WARNING measures.

19. ~~[20.]~~ In addition, the permittee shall cease operation of the combustion turbines upon notification from the Department that air quality at any downwind continuous monitoring site in Marion County has reached the following:

a. 95 percent of the adopted particulate standard taken as 142 micrograms per cubic meter of air, 24 hour average. Operation shall remain curtailed until particulate air quality is below 135 micrograms per cubic meter of air, 24 hour average.

b. 95 percent of the adopted sulfur dioxide standard taken as 247 micrograms per cubic meter of air, 24 hour average and 123 micrograms per meter of air, 3 hour average. Operation shall remain curtailed until sulfur dioxide air quality is below 234 micrograms per cubic meter of air, 24 hour average, and 1170 micrograms per cubic meter of air, 3 hour average.

c. 95 percent of the adopted photochemical oxidant standard taken as 152 micrograms per cubic meter of air, 1 hour average. Operation shall remain curtailed until photochemical oxidant air quality is expected to be less than 120 micrograms per cubic meter of air, 1 hour average during the next 24 hours.

General Conditions and Disclaimers

G1. The permittee shall allow Department of Environmental Quality representatives access to the plant site and pertinent records at all reasonable times for the purposes of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emission discharge records and otherwise conducting all necessary functions related to this permit.

G2. The permittee is prohibited from conducting open burning except as may be allowed by OAR Chapter 340, Sections 23-025 through 23-050.

G3. The permittee shall:
   a. Notify the Department in writing using a Departmental "Notice of Construction" form, and
   b. Obtain written approval

before:
   a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment, or
   b. Modifying or altering an existing source that may significantly affect the emission of air contaminants.

G4. The permittee shall notify the Department at least 24 hours in advance of any planned shutdown of air pollution control equipment for scheduled maintenance that may cause a violation of applicable standards.

G5. The permittee shall notify the Department by telephone or in person within one (1) hour of any malfunction of air pollution control equipment or other upset condition that may cause a violation of the Air Quality Standards. Such notice shall include the nature and quantity of the increased emissions that have occurred and the expected duration of the breakdown.

G6. The permittee shall at all times conduct dust suppression measures to meet the requirements set forth in "Fugitive Emissions" and "Nuisance Conditions" in OAR, Chapter 340, Sections 21-050 through 21-060.

G7. Application for a modification of this permit must be submitted not less than 60 days prior to the source modification. A Filing Fee and an Application Processing Fee must be submitted with an application for the permit modification.

G8. Application for renewal of this permit must be submitted not less than 60 days prior to the permit expiration date. A Filing Fee and an Annual Compliance Determination Fee must be submitted with the application for the permit renewal.

G9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

G10. This permit is subject to revocation for cause as provided by law.

G11. Notice provision: Section 113(d)(1)(E) of the Federal Clean Air Act, as amended in 1977, requires that a major stationary source, as defined in that act, be notified herein that "it will be required to pay a non-compliance penalty under Section 120 (of that act) or by such later date as is set forth in the order (i.e., in this permit) in accordance with Section 120 in the event such source fails to achieve final compliance by July 1, 1979."

Portland General Electric Company

B D Withers Assistant Vice President

October 31, 1979

Renewal of Air Contaminant
Discharge Permit No. 24-2318
ESD-0686-79L
GOV REL

Mr. W. H. Young, Director
Department of Environmental Quality
522 S.W. Fifth Avenue
P. O. Box 1760
Portland, OR 97207

Attention: F. A. Skirvin

Dear Mr. Young:

Enclosed are two copies of the completed application forms for renewal of the Bethel Combustion Turbine Plant Air Contaminant Discharge Permit. In addition, a check in the amount of $1,310.00 is provided to cover the application processing and annual compliance determination fees.

Sincerely,

Bart D. Withers

Bart D. Withers
Assistant Vice President
Office of Environmental and
Analytical Services

BDW:DMN:sln
Attachments

cc: Lynn Frank, DOE
John Lobdell, PUC

MAIL 2 COPIES TO:
Department of Environmental Quality
Box 1760
Portland, OR 97207

Permit No. 24-2318

appl no. 1705

Attention: Air Contaminant Discharge Permit Program Phone: (503) 229-5940

APPLICATION FOR AIR CONTAMINANT DISCHARGE PERMIT

1. Official Application Identification:

Portland General Electric
Firm Name

Department of Environmental Sciences
Division

121 S.W. Salmon Street
Mailing Address

Portland OR 97204
City State Zip

(503) 226-8405
Phone

2. Source Site Description:

Portland General Electric Company
Business Name

5765 State Street
Plant Site Address

Salem OR
City State Zip

(503) 228-7181
Phone

3. Air contaminant source(s) and fees are shown below.

Air Contaminant Source (From Table A)	SIC No.	AP Fee*	ACD Fee**
a. Electric power generation, greater than 25 Mw	4911	-	1260
b.			
c.			
Total fees due (not including filing fee)			
Standard filing fee		50	
Total amount due		$1310	

Please submit with this application a check payable to the Department of Environmental Quality for the total amount due.

____ Check here if you are requesting a Special Letter Permit.

I hereby apply for permission to discharge air contaminants in the State of Oregon as stated or described in this application and certify that the information contained in this application, and the schedules and exhibits appended hereto are true and correct to the best of my knowledge and belief.

Bart D. Withers
(Name of owner or legally authorized representative)

Assistant Vice President
(Title)

Bart D. Withers
(Signature)

10/31/79
(Date)

* Application Processing Fee
** Annual Compliance Determination Fee

AO2169

Application No. 24-2318

DESCRIPTION OF AIR CONTAMINANT SOURCE

The information required in this schedule must be furnished for each air contaminant source listed in Item 3, page 1 of the application.

Air Contaminant Source (as listed in Item 3 of application)	S.I.C.
Electric Power Generation Greater Than 25 MW	4911

1. General Production Information

State the production rate in the units delineated in the applicable section of the OAR rules or in units generally used by the industry for each air contaminant source process or any component thereof for which a specific emission standard has been adopted.

a. Maximum hourly production rate 127.2 MW @ 30°F/hr.

b. Normal hourly production rate 110.4 MW @ 53°F/hr.

c. Primary operating schedule (indicate by hours per day, days per week and weeks per year. If seasonal, indicate normal season.)

The expected Bethel requirement for energy, based on Power Estimates is that a 95 percent chance exists that energy requirements will not exceed 2000 hours.

d. Products produced:

Description	Annual Production (Tons, Bd. Ft., Sq. Ft., etc.)
Electric power	

e. List below the major raw material(s) including fuels utilized (use additional sheet if necessary)

Raw Material and Fuels	Amount Utilized Annually
Distillate	10,000 gal./hr.
Natural Gas	Equivalent of above

2. Indicate any changes in equipment from that shown on the previous permit application.

Requested changes to the existing permit are discussed in Attachment A entitled "Bethel Permit Modifications".

ATTACHMENT A

Bethel Permit Modifications

The following concerns requested changes to the existing Bethel Air Contaminant Discharge Permit.

I. Performance Standards and Emission Limits - No. 1

The Condition states "The permittee shall at all times maintain and operate all air contaminant generating processes and all contaminant control equipment at full efficiency and effectiveness such that emission of air contaminants are kept at the lowest practicable levels." It is requested that at all times and at full efficiency and effectiveness be taken out of this Condition. It is not possible to maintain any equipment at full efficiency and effectiveness at all times. The intent of Condition 1 is fulfilled without these requirements.

II. Special Conditions - No. 4

Condition 4 should be changed to allow startup on oil if natural gas is not available. The following should replace the existing Condition. Turbines shall be started on natural gas if available, otherwise distillate oil may be used.

III. Special Conditions - No. 9

Permit Condition 9 restricts operation of the Bethel Plant to emergency conditions. This Condition should be removed from the permit in its entirety. The Bethel Plant meets all emission requirements, noise limitations, and causes no ambient air quality standard violations.

Restricting operation of the Bethel Plant on natural gas fuel violates Condition 9a(3) since natural gas is a cleaner fuel than would be used by alternate fuel oil sources which would therefore "threaten the environment to a greater extent". In addition, alternate fuel oil sources are currently "clearly excessive in cost" as compared to Bethel operation on natural gas. Fuel availability is also becoming a critical problem. When the Bethel permit was first issued, natural gas was in short supply. Today, however, fuel oil for combustion turbines is in extremely short supply. To make matters more complex both of those fuels are required for home heating. Since Bethel Plant is the only facility that can use both fuels, its use on the most available fuel should be unrestricted.

It is clearly in the best interest of the public that the restrictions in Condition 9 be removed from the Air Contaminant Discharge Permit. The natural gas and distillate oil supplies should be usable on an as available basis with consideration given to providing for the overall needs of the public. Unrestricted use of the Bethel Plant is necessary to meet the public's energy requirements.

IV. Monitoring and Reporting - No. 15

PGE has monitored ambient levels of sulfur dioxide, oxides of nitrogen, and particulate in the Bethel area for the past 5½ years. During this period, the Bethel gas turbines were operated over 1400 hours. Sulfur dioxide emissions were essentially zero when the plant was operating. In addition, changes in oxides of nitrogen due to plant operation could not be detected. Because of the extremely clean natural gas and oil fuel used in gas turbines, particulate emissions are not significant. Based on ambient data collected, operation of the Bethel Plant has had no discernable impact on air quality. The requirement to continue monitoring ambient air quality should be deleted because of the unnecessary expense, approximately $24,000 per year, in maintaining this equipment.

Attachment 2

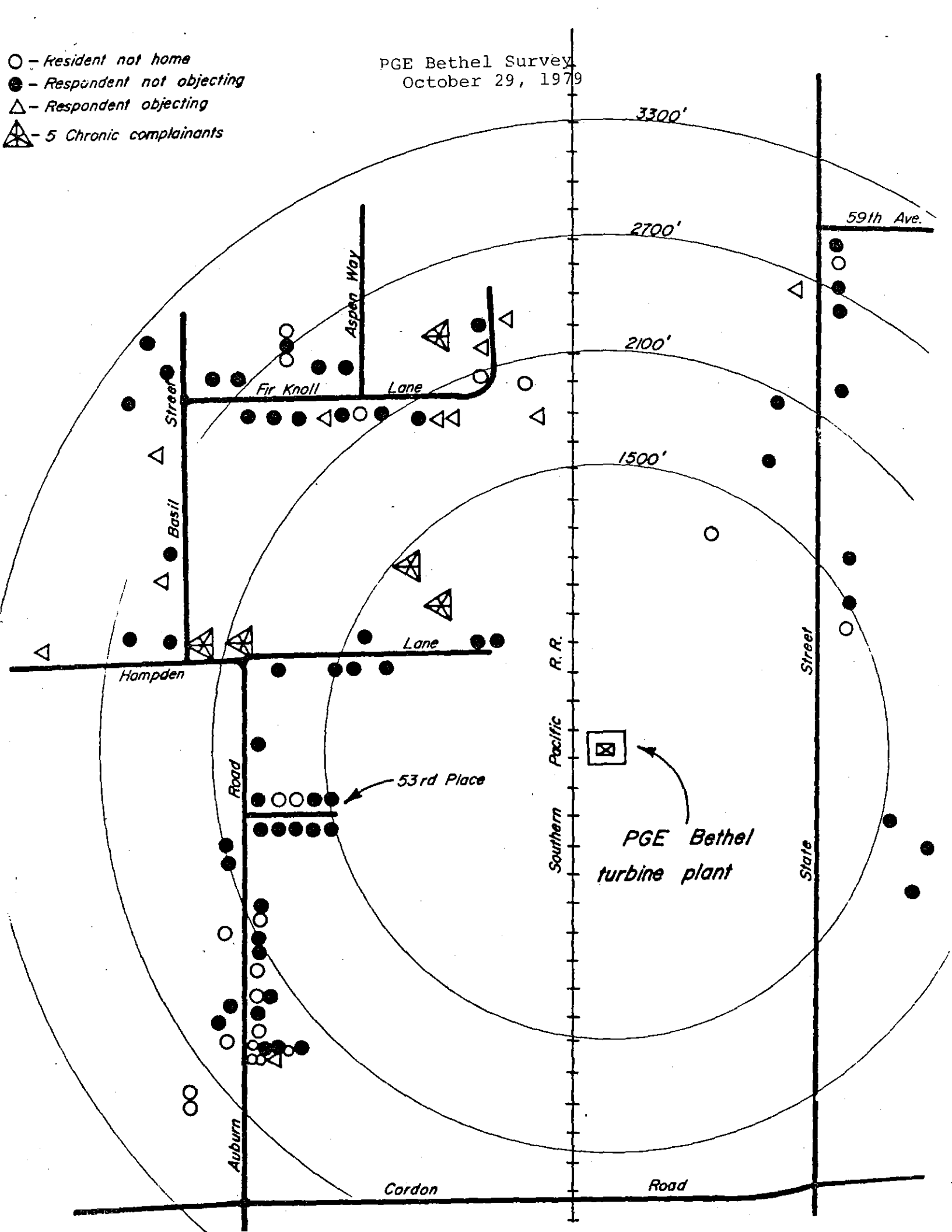
Bethel Neighborhood Survey Results
Audible Noise Only
October 29, 1979

Distance from Plant	Homes Surveyed	Families Objecting to Increased Operation	% Objecting
Up to 1500'	9	2	22
1500--2100'	25	4	16
2100--2700'	30	8	27
2700--3300'	9	2	22
	73	16	

Street Name	Homes Surveyed	Families Objecting to Increased Operation (%)	Families Not Aware of Operation (%
Auburn Road	14	1 (7%)	9 (64%)
53rd Place	8	0	4 (50%)
Hampden Lane	14*	5 (36%)	4 (29%)
Basil Street	6	2 (33%)	0
Fir Knoll Lane	19*	7 (37%)	8 (42%)
State Street	12	1 (8%)	5 (42%)
	73	16 (22%)	30 (41%)

*Includes the 5 families involved in the lawsuit, although they were not interviewed.

22 Families were not at home during the survey.


○ – Resident not home
● – Respondent not objecting
△ – Respondent objecting
– 5 Chronic complainants
PGE Bethel Survey
October 29, 1979
3300'
2700'
2100'
1500'
59th Ave.
Aspen Way
Fir Knoll
Lane
Street
Basil
Lane
Hampden
Road
53rd Place
Pacific
R.R.
Southern
Street
State
PGE Bethel
turbine plant
Auburn
Cordon
Road

PGE BETHEL SURVEY

Good Evening. My name is _____ and I'm with the State Department of Environmental Quality here in Salem. Would you have a few minutes to respon to some questions on the Portland General Electric Bethel Power Plant? PGE is projecting increased usage of the plant and our office is curious how residents may feel, should the plant be operated more than in the past.

1. How are you aware of the operation of the Bethel plant?

   ___ Word of mouth.
   ___ Noise audible within home.
   ___ Noise audible in yard.
   ___ Vibration detected in home.
   ___ Odor or plumes observed.
   ___ Seldom aware that plant is operating.
   ___ Not aware of plant operation.

2. Does operation of the plant cause you or your family inconvenience or annoyance?

   _____
   _____
   _____
   _____

3. Are you aware of any special restrictions that have been placed on the Bethel plant by regulatory agencies?

   Yes___ _____
   No____

4. Have you attended any of the DEQ public hearings on issuance of the plant's Air Contaminant Discharge Permit?

   Yes_____ No_____

5. From the standpoint of noise, would you have any objections if the plant were to operate continuously?

   _____
   _____
   _____

6. How long have you lived at this address? _____

Person Interviewed _____

Address _____

Interviewed by _____ Date _____

STATE OF OREGON

INTEROFFICE MEMO

Willamette Valley Reg. 378-8240
DEPT. TELEPHONE

TO: Bill Young

DATE: November 19, 1979

FROM: Dave St Louis

SUBJECT: EQC Staff Report--Renewal of PGE's Air Contaminant Discharge Permit for the Bethel Turbine plant.

This agenda item pertains to renewal of Portland General Electric's Air Contaminant Discharge Permit for the Bethel turbine plant, located in Salem. Historically, because of the noise aspects of the plant, the Department has held a public hearing prior to permit renewal. For this upcoming renewal, PGE has projected increased usage of the plant.

D. St Louis

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 F, December 14, 1979, EQC Meeting

Public Hearing to Consider Adoption of Proposed Open Field Burning Regulations, OAR Chapter 340, Sections 26-005 through 26-030 and Amendment to the Oregon State Implementation Plan

1. Background

1.1 Statutory Requirements Affecting Rulemaking

The 1979 Oregon Legislative Assembly adopted Senate Bill 472 (Chapter 181, Oregon Laws 1979) revising the law regulating open field burning in the Willamette Valley. The new law will become effective January 1, 1980, and mandates certain changes to existing regulations. In addition, because the new law requires some substantive revisions to the present regulatory control of field burning, such changes will need to be submitted to the Environmental Protection Agency (EPA) as a revision to Oregon's State Implementation Plan (SIP).

The principal changes to field burning law embodied in Senate Bill 472 affecting regulatory revisions may be outlined briefly as follows:

1. An upper limit on the acreage that may be open burned each year is set at 250,000 acres. The Environmental Quality Commission's (EQC) specific authority to establish the limit based upon the needs of public health and safety and compliance with state and federal air quality laws was removed.

2. A legislative intent was established that field burning permits be issued and burning be allowed for the 250,000 acres unless:

   a) Meteorological or other burning conditions require that a maximum number of acres not be burned on a given day; or
   b) The Commission finds other reasonable and economically feasible alternatives exist.

In addition, in submitting SIP revisions to the EPA, the new law requires such revisions "shall be only of such sufficiency as to gain approval..." Rules adopted by the Commission regulating field burning but not necessary for attainment of National Ambient Air Quality Standards shall not be included in any such SIP submittal.

Other changes in the law affect collection and disbursement of fees. Such transactions are to be functions of the Department of Environmental Quality (DEQ) under the new law.

In addressing these statutory changes as well as regulatory proposals presented later in this report, the Commission is required, pursuant to Oregon Revised Statute (ORS) 468.460, to adopt rules regulating open field burning in the Willamette Valley counties and to consider in this process local air quality and soil conditions, the extent, type, or amount of open field burning and the availability of alternatives. Prior to such adoption the EQC is required to consult with the Department and Oregon State University and may consult with other interested agencies.

In addition to the state statutory requirement described above any revised field burning regulations will need to comply with federal Clean Air Act requirements and associated EPA regulations. Currently, a field burning State Implementation Plan revision allowing up to 187,500 acres to be burned under existing rules is being processed by the EPA, Region X. Its approval is expected soon. Further discussions with the EPA regarding new changes in field burning status have been limited pending this approval.

Whatever regulations control field burning in the Willamette Valley, the impact of the activity must be identified and provided for when developing plans for the Portland and Eugene-Springfield Air Quality Maintenance Areas (AQMA's) where violations of Total Suspended Particulate (TSP) standards occur and also currently "clean" areas which are to be protected.

Reductions in source emissions are sought inside and/or outside the area of ambient violations, such as the previously noted AQMA's, in order to reduce air contaminant levels to within National Ambient Air Quality Standards. The amount of reduction to be achieved within an area, the sources from which emissions reductions are sought, and the strategy for future emissions growth (if any is allowed) are matters of state and local decision-making all within Clean Air Act guidelines. The citizens' advisory committees of both Portland and Eugene have been organized to undertake this process and have been reviewing the role of field burning in their strategy development. With regard to field burning, the Committees must decide whether the present level of field burning impact is satisfactorily low or whether they should recommend to the Commission that additional regulation should be drafted to reduce or prevent growth in the impact of this source.

In addition to regulations affecting areas of known air quality violations, federal Prevention of Significant Deterioration (PSD) regulations define increments of allowable degradation of air quality in "clean" areas. Currently proposed EPA regulation would apply these increments to the levels of air contaminants which existed in 1978. In national wilderness areas, national parks and other designated pristine (Class I) areas, particulate loadings are not allowed to increase more than 5 ug/m^3 on an annual basis or 10 ug/m^3 on a 24-hour average basis. In Class II areas (all other areas of Oregon), these allowable increments are increased to 19 ug/m^3, annual basis, and 37 ug/m^3, 24-hour basis. The Willamette Valley is a Class II area and increases in field burning effects above 1978 levels must not exceed on a daily basis, 37 ug/m^3.

1.2 Previous Input from Affected Parties

On August 6, 1979, the Commission received several suggestions from the City of Eugene regarding field burning rule revisions. Though other rule changes were proposed and eventually adopted, perhaps the most significant of the proposed changes was a specific "performance standard" designed to limit seasonal smoke intrusion into the cities of Eugene and Springfield. At that meeting, the Commission agreed to assess the performance of the 1979 field burning smoke management program against the proposed standard, hopefully to better judge both the standard's practicality as a regulatory tool and, if appropriate, the best form for its implementation.

The initial performance standard proposal, developed by Terry Smith, environmental analyst for the City of Eugene, has been reviewed by both DEQ and Oregon Seed Council staff since the August 6 meeting. Several modifications have been offered by Oregon Seed Council (OSC) representatives after meeting with City of Eugene staff. Other meetings between OSC and Eugene staff have led to general agreement and support of a modified version of the original performance standard.

In addition to this activity by City and Seed Council representatives, the citizen's advisory committees of both AQMAs are currently determining strategies which will address local sources as well as those outside the AQMA boundaries. Staff coordinators have discussed the role of field burning with the Committees but, as of yet, no recommendations have been received with regard to the need for further regulation. DEQ field burning staff will meet with Eugene-Springfield Citizens' Advisory Committee prior to the December public hearing. The Eugene-Springfield Committee has agreed to coordinate its strategy-making process with the field burning rule development process for a timely SIP revision submittal.

Representatives of Oregon State University specializing in agriculture and air quality have been contacted and asked to submit any testimony prior to this public hearing.

1.3 Statement of Need for Rulemaking

A "Statement of Need for Rulemaking" is attached (Attachment I). As mentioned previously, the EQC's authority to regulate field burning is established in the following Oregon Revised Statutes (ORS):

a) ORS 468.450 allowing the Commission to establish a schedule to identify the extent and type of burning to be allowed on each "marginal" day; and,
b) ORS 468.460 authorizing the Commission to promulgate rules controlling Willamette Valley field burning.

2. Alternatives and Evaluation

2.1 Availability of Alternatives

As mentioned previously, the Commission may reduce the amount of open field burning once reasonable and economically feasible alternatives become available. Consequently,

the Department is continuing to conduct research into alternative field treatments to open burning. Currently, a program is underway to assess the effectiveness of close mechanical straw and weed seed removal (crew-cutting) and less-than-annual burning on a variety of grass species typically grown in the Valley. A variety of alternative chemical treatments are also being tested. These tests, initiated last year, have produced only observational results regarding yield and quality as statistical analyses have yet to be completed. Crew-cutter treatments appear inferior to burning techniques and are significantly influenced by moisture content. Crew-cutter operating costs have been estimated at about $60 per acre, though the range of costs is wide depending upon operating parameters, species, and field conditions. These costs are comparable with those of field burning machines.

Less-than-annual burning studies were implemented in conjunction with crew-cutter studies using adjacent plot areas. Hard data are unavailable now, however, some loss of control over stand density has been noted in annual ryegrass plots. (Significant yield reductions can result when stand density increase much beyond an optimum level.)

These results regarding the crew-cutter and less-than-annual burning are preliminary and do not indicate at this time the viability of either of these alternative treatment methods. The high costs and operational limitations of mobile field sanitizers effectively eliminate them as usable alternative sanitation means in the next few years. Similarly, chemical treatment capabilities and costs continue to prevent their availability as a significant alternative to burning. As a result, incorporation of straw is the only non-burning alternative technique currently used on significant acreages.

Since all alternatives, except incorporation, require some straw removal, utilization and marketing of this material continues to be a necessity. A recently completed straw market analysis reveals very limited marketing opportunities in this country except for the 30,000 to 50,000 tons sold each year for the feeding and care of livestock. This represents straw removal from about 15,000 to 25,000 acres. The market survey indicated the least cost deficit and greatest potentials to exist in the Japanese market. However, initial costs would be significant and only preliminary work is being done now. Previous attempts at penetrating the Japanese market with grass straw have been mostly unsuccessful.

Research attempts at developing alternative crops for Willamette Valley grass fields have centered on meadowfoam which grows well in the poorly drained soil. An oil seed crop, meadowfoam is currently being cultivated in limited amounts to provide oil for analysis by potential users. No specific market exists for meadowfoam oil though it would appear that its physical properties may make it competitive with certain other vegetable oils.

Based on Department-supported research as well as other research activities, staff believes no reasonable and economically feasible alternatives to open field burning exist at this time.

2.2 Rule Revision Required by New Field Burning Legislation

Senate Bill 472 revises ORS 468.475 and removes the Commission's authority to adjust annual acreage limitations on field burning (except when reasonable and

economically feasible alternatives are developed) by establishing a flat 250,000 acre limitation. Permits are to be issued for this amount and the acreage burned barring uncooperative meteorological conditions. Besides raising the annual limitation by 70,000 acres, the new law does not allow the Commission to use adjustments of the annual acreage as a method for limiting smoke problems in a given year. Also, smoke management decisions must be made on a daily basis.

Currently, EPA is about to approve a field burning SIP containing an upper limit for burning of 180,000 acre annual limitation. The new state law sets this upper limit at 250,000 acres. Because of the conflict between these upper limits or others suggested as a result of the SIP approval process, staff proposes to change the current 180,000 acre limit to that amount authorized under state and federal laws. This rule change also reflects the Department's belief that the role of annual acreage limitations in field burning regulation should be de-emphasized.

To address the requirement of the new law which restricts the Department to daily smoke management, the current rule allowing reduction of annual acreage limits based upon smoke intrusion in Eugene-Springfield, is eliminated.

2.3 Rule Revisions to Implement a Performance Standard Control Mechanism

2.3.1 Performance Standard Background

Representatives of the City of Eugene have for the last several years requested better protection from field burning smoke intrusions. The reduction in intrusions was desirable for the City in order to:

a) Reduce the annual and, therefore, shorter-term exposure of local citizens to field smoke with its apparent adverse health effects;
b) Reduce the Total Suspended Particulate loading, in general, and field burning's contribution to violations of National Ambient Air Quality Standards; and,
c) Reduce the adverse aesthetic effects of smoke intrusions.

The City subsequently worked to implement various rule revisions regulating open field buring to reduce both the number and severity of smoke intrusions into Eugene and the surrounding AQMA. This process culminated in a number of rules designed to reduce total emissions and the current "nephelometer" rule which would reduce the amount of acreage allowed to be burned based on cumulative smoke intrusion in Eugene-Springfield.

Due to significant resistance to regulation of smoke impacts through annual acreage control and the belief by many that more effective control methods are available, City representatives proposed a performance standard control scheme designed to:

a) Remove annual acreage limits as a smoke intrusion control parameter;
b) Allow increased operational flexibility;
c) Allow the Department to take a more traditional regulatory role with regard to field burning; and,
d) Still provide adequate protection for Eugene-Springfield air quality.

2.3.2 Performance Standard Technical Concepts and Implementation

The performance standard as proposed by the City, and in the attached proposed rules (Attachment II), would incrementally tighten the criteria for allowing burning as the cumulative hours of smoke intrusion increase. Thus, as the total smoke exposure in the Eugene-Springfield area increases, the opportunity for additional burning decreases. The proposed standard would accomplish this effect by establishing a higher and higher minimum mixing height for burning.

The mixing height, that height in the atmosphere through which vertical movement of air is more or less unrestricted, is an important parameter in describing atmospheric dispersion capabilities. It is an indicator of the overall air volume available for dispersion of smoke. It is also a parameter which can be and is routinely determined from atmospheric temperature measurements. One shortcoming of the measured mixing height, however, is that, under typical Willamette Valley summertime conditions, it does not necessarily indicate the true vertical dispersion capabilities important to field burning. The actual height attained by a plume is considered to be a better indicator of actual dispersion capabilities. Particularly under good fuel conditions and light winds, the measured mixing height may significantly underpredict plume rise. Use of rapid ignition techniques cause even greater discrepancies. Since plume rise is a better indicator of overall dispersion capabilities under these conditions, the term Effective Mixing Height (EMH) would be used in the proposed rules and would be defined as the actual identified plume rise or measured (or calculated) mixing height, whichever is greater.

The use of more and more restrictive EMH requirements to regulate burning activities, as in the proposed performance standard, would tend to "prevent" future smoke intrusions by:

a) Eliminating some burning days on which a smoke intrusion might occur; and,
b) Reducing the intensity of a smoke intrusion such that it is not perceived as significant.

However, the most significant effect of the performance standard is closer regulation resulting in fewer and less intense smoke intrusions. This increased performance is required by more protective EMH limits which accrue as a result of intrusions. Thus significant parameters affecting smoke intrusions would be manipulated to mitigate future smoke impacts. Staff believes this method of control to be superior to regulation of annual acreage limits as provided by current rules.

Nephelometer measurements would be used under the proposed rule to determine smoke intrusions. These measurements would be used in a manner analogous to the current rule, however, smoke intrusion occurrences would be determined based upon the increase in readings above the existing (background) levels rather than a simple exceedance of 2.4×10^{-4} b-scat. At present, the background level would be established by averaging the three hourly readings prior to the intrusion.

Referencing measurements to existing background levels, such as is proposed, establishes a constant increment available for smoke intrusion without penalty. Thus a smoke intrusion causing an increase of 1.7 b-scat over an existing background level of 1.0 b-scat would not result in any "hours of smoke intrusion"

under the proposed rule, though it would under present rules. Alternatively, an increase of 1.9 b-scat over a background level of 0.4 would cause hours to accumulate under the proposed rules though the overall measurement would be less than the critical 2.4 b-scat value of current rules.

As mentioned, the performance standard is designed to address the needs of the Eugene-Springfield AQMA. The proposed relationships between EMH minimum requirements and hours of smoke intrusion were based upon statistical analyses of smoke intrusions, by Terry Smith of the City of Eugene, and the need to minimize the contribution of field burning to violations of either the 24-hour or annual particulate standards. The relationships were also subject to revisions as a result of discussions among interested parties.

The performance standard would be most successful at limiting smoke effects in the AQMA on an annual basis. Significant restrictions on burning (particularly in the late season) will be in place after 20 hours of smoke intrusion occur. Based upon analysis of intrusion for years prior to 1978, two to three smoke intrusions would result in this number of accumulated hours but with a very small impact on the annual geometric mean of approximately 0.2 ug/m^3. Of course, 20 hours of smoke intrusion would still result in a significant number of complaints.

The ~~initially proposed~~ performance standard could not prevent field burning smoke from causing a violation of the 24-hour particulate standard of 150 ug/m^3. It would, however, discourage burning activities leading to any intrusion through application of additional burning restrictions. In this sense the proposed rules would work in a manner analogous to the current (but proposed for deletion) nephelometer rule which has been successful in helping to reduce all levels of field burning smoke intrusions into the Eugene-Springfield AQMA. However, to further assure that field burning does not contribute to a standards violation in this area, real-time tracking of compliance with 24-hour particulate standards is proposed as a new addition to the management program. This tracking would be accomplished through use of a continuous particulate monitor currently planned for installation by the Department as part of its state wide Data Acquisition System.

Under the current proposed operation schedule instruments would provide updates every two hours on the existing particulate loading. (Under standard techniques, particulate data are not available until about one day after the completion of a 24-hour sample.) Though two-hour delays are too long for the normal time frame of smoke management decision making, the monitor will provide a much better estimate of the daily accumulation of particulate and trends than has been available previously. From these data, management staff will make predictions, based upon best available meteorological forecasts and source emission data, of the 24-hour particulate levels which may be reached each day. Whenever violation would appear possible, burning under northerly winds would be prohibited.

Of course, since this type of monitoring is new to the Department, there is no staff experience, and no other mathematical or empirical methods for predicting with known accuracy, 24-hour Total Suspended Particulate (TSP) levels from a limited number of two hour samples. Though such predictive techniques would likely develop naturally as data are collected, the Department would propose to expedite this development activity in the next three months, if this proposed rule is adopted.

Because of the limitations on accuracy posed by predictions made from instrument measurements, the proposed rule would prohibit north wind burning when a Eugene-Springfield TSP level of 135 ug/m^3 was predicted. Though burning is not often allowed under meteorological conditions which cause such high levels, the 15 ug/m^3 margin would allow for errors in such TSP forecasts and still survive an average or smaller smoke intrusion without violations of 24-hour standards. A TSP violation from a severe smoke intrusion, as might result from a totally missed forecast, would not be prevented by this proposed rule.

2.3.3 Application of the Proposed Performance Standard to the 1979 Season

The proposed performance standard would have had no effect on 1979 operations had it been operational. Smoke intrusions, as measured by nephelometer, were limited to approximately ten hours in Springfield and zero hours in downtown Eugene. Thus restriction would have become effective.

Smoke impact data from Lebanon is not available at the time of writing. It will be analyzed as soon as it becomes available.

2.3.4 Industry Self-Regulation Under a Performance Standard

Under the proposed performance standard, restrictions on burning due to errors in smoke management decision making (resulting in excessive smoke intrusion) provides an automatic limiting effect on an unsuccessful program. Of course, the authority must exist to restrict burning activities and to conduct impartial assessments of smoke intrusions. Assuming the Department retains these latter two functions, it seems logical, and more typical of the Department's other regulatory activities, for the seed industry to conduct the operations of the field burning program within the framework of performance standard and other air quality regulations and guidelines.

This approach, as previously noted, has been supported by the City of Eugene and is now being undertaken by the Department and Oregon Seed Council to a limited extent. Initially, additional Oregon Seed Council activities are proposed to include much increased meteorological forecasting input to the program operation as well as improved field coordination, particularly in north Valley areas. Also, Seed Council employees are proposed to be actively and routinely involved in daily aerial observations, providing this information to the DEQ staff. At present, daily burn decisions would continue to be made by staff though even this function may be transferred to industry staff after adequate experience has been gained. The DEQ will also continue the daily monitoring of burning and ambient conditions as well as maintain an enforcement staff.

Costs of management, which continue upward with the need for greater sophistication, would be increased in order to cover additional Oregon Seed Council staff and equipment costs. Approval for a shifting of $130,000 in research funds to smoke management to cover such cost was recommended by the Advisory Committee on Field Burning at its November 19, 1979, meeting.

2.4 Rule Revisions to Comply with Prevention of Significant Deterioration (PSD) Requirements

Because the 1979 legislative changes authorized increases in acreage to be open burned, the potential for increased impact on ambient air quality must be assessed not only in areas now violating standards but in currently "clean" areas. Site-by-site estimates of the impact of increased burning on the previously mentioned PSD increments shows the potential for a violation of the 24-hour increment (37 ug/m^3) at Lebanon only. This is based upon a conservative analysis; a scaling up the maximum impact at Lebanon during 1978, the proposed base line year for the Willamette Valley and thus assuming roughly 86,000 acres to be burned in the Valley on a single day. The maximum acreage ever reported burned on a single day was approximately 53,000 acres on August 11, 1978.

If the estimated potential increases in field burning are added to the second highest TSP level recorded in Lebanon, a violation of federal secondary TSP standards would be predicted. Since these high TSP readings do occur during the summer season, there is some potential, (though small under management program) for violations of the noted standard.

To address those potential problems, the Department would propose to use both nephelometer and continuous particle monitoring, identical to those proposed for Eugene-Springfield, to monitor Lebanon area air quality. It is further proposed to use the combination of instrument readings to not only predict TSP levels, but to regulate burning on a real-time basis such that applicable standards are not violated.

Again, the Department's predictive capabilities regarding TSP are limited at this time but will be augmented, as previously mentioned, if this proposed approach is adopted. Unfortunately, use of telemetered air monitoring equipment at Lebanon was not contemplated as part of the initial Data Acquisition System since Lebanon is an "attainment" area. Thus, acquisition, installation, and use of equipment at Lebanon may not be possible this year. For the 1980 season, then, it is proposed to establish a daily acreage limitation not to exceed the base line level established in 1978. Thus no use of the 24-hour PSD increment would occur even though annual acreage increases may occur over 1978.

As a result of analyses completed to date, violations in areas other than Lebanon for Class I PSD, 24-hour and annual, increment, Class I annual increments, and TSP standards do not appear likely as a result of the potential increase in acreage burned.

2.5 Lebanon-Sweet Home Operational Control Zones

During the 1979 season, the Oregon Seed Council, local fire chiefs, seed growers, local city officials, and the Department collaborated in an attempt to provide additional protection from smoke intrusion in Lebanon and Sweet Home. Five control zones were established around the Lebanon-Sweet Home area to facilitate better operational control. By burning areas near these cities under intensive management and reducing or prohibiting burning in these areas on south winds, it was believed a general reduction in impact would result. The zones, roughly four

miles on a side, were delineated so that: a) zone boundaries could be easily identified by growers and aerial observers (DEQ's skywatch); and, b) burning could be regulated to keep smoke from entering Lebanon and Sweet Home from nearby fields under prevailing winds.

Burning releases in the zones were generally on a field-by-field basis, making extensive use of aerial observation and radio communications, in an effort to avoid direct smoke intrusion. Daily acreage accomplishments were small compared to days of general burning, however, management personnel requirements were high.

This effort reduced smoke levels in Lebanon and Sweet Home, particularly under limited burning conditions. However, under general south Valley burning smoke intrusions were again heavy this season though generally limited to four hours or less.

To reduce the south Valley impact in this area will require further control measures and likely greater manpower. Such further control efforts might result in:

a) Enlarged control zones;
b) Limitation on burning or plume density per unit of land area; or,
c) More emphasis on the temporal distribution of burning.

These and other concepts will be discussed in the next few months with affected parties.

2.5 Rules Revisions for Clarification

Several other rule changes are proposed in order to clarify and shorten the rules where possible. In particular, detailed rules regarding approval and operation of mobile field sanitizers would be eliminated and replaced by language applicable to alternative methods in general. Several definitions relating to mobile field sanitizers would also be eliminated if the proposed rules were adopted.

Section 26-015 would be revised not only to incorporate the performance standard but also to better delineate the control mechanisms used in smoke management:

a) Definition of atmospheric conditions (required by ORS 468.450);
b) Limitation of burning hours; and,
c) Limitations on the amount and distribution of emissions.

In addition, definitions are proposed for acreage quotas and cumulative hours of smoke intrusion.

3. Summation

The Department proposes for Commission adoption, after public hearing, revisions to rules regulating open field burning in the Willamette Valley. The proposed rules would:

a) Update the regulations to reflect the requirements of the 1979 field burning law (SB 472);

b) Provide for the establishment of a "performance standard" method of limiting field burning smoke impacts in the Eugene-Springfield Air Quality Maintanence Area (AQMA). Specifically, the meteorological conditions under which burning would be allowed would become more restrictive as the cumulative hours of smoke intrusion in the Eugene-Springfield AQMA increase;

c) Prohibit burning activity under northerly winds if a violation of the federal, secondary 24-hour Total Suspended Particulate standard is predicted using continuous particulate monitoring methods;

d) Restrict daily burning in the south Valley to 1978 levels to ensure federal 24-hour Prevention of Significant Deterioration increments are not exceeded.

e) Clarify and reorganize certain portions of the existing rules. Detailed regulations regarding approval and use of mobile field sanitizers would be eliminated and replaced by more general rules regarding approval of alternatives to open field burning. Section 26-015, summer burning season regulations would be reorganized.

The Department through operational and budgetary changes proposes to increase the Oregon Seed Council role in the daily smoke management program decisions. Better organization of growers and fire districts and increased meteorological analysis is proposed through additional Seed Council staff.

The Department of Environmental Quality and other affected parties conducted, through operational procedures, a program to reduce smoke problems in the Lebanon-Sweet Home area. Though some improvements were made, heavy smoke intrusions still occur under southerly wind burning conditions. The Department and others involved will assess and implement additional methods to mitigate the Lebanon-Sweet Home smoke problem.

4. Director's Recommendation

Based on the summation above, it is recommended that the Environmental Quality Commission conduct a public hearing on the attached proposed rules, leaving the record open through December 31, 1979, for such additional testimony as may be submitted. The Commission will be asked to adopt rules on field burning at its January 25, 1980, meeting.

Bill

WILLIAM H. YOUNG

Attachment I Statement of Need for Rulemaking
II Proposed Field Burning Rules, OAR Chapter 340 Sections 26-005 Through 26-030

SAF;Pas
686-7837
11/29/79

ATTACHMENT I

Agenda Item F, December 14, 1979, EQC Meeting
Public Hearing to Consider Adoption of Proposed Open Field Burning Regulations, OAR Chapter 340, Sections 26-005 Through 26-030 and Amendment to the Oregon State Implementation Plan

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the Environmental Quality Commission's intended action to adopt a rule.

(1) Legal Authority.

Oregon Revised Statutes 468.020, 468.450, and 468.460.

(2) Need for the Rule.

Proposed amendment of open field burning regulations, OAR 340, 26-005 through 26-030 is needed to:

1. Incorporate changes made necessary by adoption by the 1979 Oregon Legislature of Senate Bill 472 establishing new law regulating open field burning;

2. Make operational rule changes supportive of the potential increase in acreage to be open burned authorized by SB 472; and,

3. Clarify the existing rules.

All such changes are required to achieve Environmental Protection Agency acceptance of a field burning State Implementation Plan revision.

(3) Principle Documents Relied Upon in This Rulemaking.

1. Staff reports, William H. Young, director, Department of Environmental Quality, presented at the August 6, November 16, and December 14, 1979, EQC meetings.

2. Record of the Environmental Quality Commission meetings, August 6, November 16, and December 14, 1979.

3. Personal communication with Terry Smith, environmental analyst, City of Eugene, August 3 and October 22, 1979.

4. Personal communication with Charles D. Craig, smoke management specialist, Oregon Seed Council, October 17 and October 22, 1979.

5. Personal communication with David S. Nelson, executive secretary, Oregon Seed Council, October 12 and October 17, 1979.

6. Personal communication with Terry Smith, environmental analyst, City of Eugene, November 28, 1979.

7. Personal communication with Charles D. Craig, smoke management specialist, Oregon Seed Council, November 28, 1979.

8. Personal communication with John Core, Department of Environmental Quality, November 28, 1979.

9. Proposed regulations regarding Prevention of Significant Deterioration, U. S. Environmental Protection Agency, in Federal Register, September 5, 1979.

10. "Proposal for an Air Quality Performance Regulation for Field Burning Smoke Management," Terry Smith, environmental analyst, City of Eugene, August 3, 1979.

11. "Analysis of Field Burning Performance Standard," memorandum from Charles D. Craig, Oregon Seed Council, to David S. Nelson, executive secretary, Oregon Seed Council, September 27, 1979.

SAF:pas
686-7837
11/29/79

Attachment II

DEPARTMENT OF ENVIRONMENTAL QUALITY
Chapter 340

Agricultural Operations
AGRICULTURAL BURNING

26-005 DEFINITIONS. As used in this general order, regulation and schedule, unless otherwise required by context:

(1) Burning seasons:

(a) "Summer Burning Season" means the four month period from July 1 through October 31.

(b) "Winter Burning Season" means the eight month period from November 1 through June 30.

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

(3) "Marginal Conditions" means conditions defined in ORS 468.450(1) under which permits for agricultural open burning may be issued in accordance with this regulation and schedule.

(4) "Northerly Winds" means winds coming from directions in the north half of the compass, at the surface and aloft.

(5) "Priority Areas" means the following areas of the Willamette Valley:

(a) Areas in or within 3 miles of the city limits of incorporated cities having populations of 10,000 or greater.

(b) Areas within 1 mile of airports servicing regularly scheduled airline flights.

(c) Areas in Lane County south of the line formed by U. S. Highway 126 and Oregon Highway 126.

(d) Areas in or within 3 miles of the city limits of the City of Lebanon.

(e) Areas on the west side of and within 1/4 mile of these highways; U. S. Interstate 5, 99, 99E, and 99W. Areas on the south side of and within 1/4 mile of U. S. Highway 20 between Albany and Lebanon, Oregon Highway 34 between Lebanon and Corvallis, Oregon Highway 228 from its junction south of Brownsville to its rail crossing at the community of Tulsa.

(6) "Prohibition Conditions" means atmospheric conditions under which all agricultural open burning is prohibited (except where an auxiliary fuel is used such that combustion is nearly complete, or an approved sanitizer is used, or burning is specifically authorized by the Department for experimental or test purposes).

"[----]" represents material deleted
Underlined material represents proposed additions

(7) "Southerly Winds" means winds coming from directions in the south half of the compass, at the surface and aloft.

(8) "Ventilation Index (VI)" means a calculated value used as a criterion of atmospheric ventilation capabilities. The Ventilation Index as used in these rules is defined by the following identity:

$$VI = \frac{\text{(Effective mixing height (feet))}}{1000} \times \text{(Average wind speed through the effective mixing height (knots))}$$

(9) "Willamette Valley" means the areas of Benton, Clackamas, Lane, Linn, Marion, Multnomah, Polk, Washington and Yamhill Counties lying between the crest of the Coast Range and the crest of the Cascade Mountains, and includes the following:

(a) "South Valley," the areas of jurisdiction of all fire permit issuing agents or agencies in the Willamette Valley portion of the Counties of Benton, Lane or Linn.

(b) "North Valley," the areas of jurisdiction of all other fire permit issuing agents or agencies in the Willamette Valley.

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

(11) "Local Fire Permit Issuing Agency" means the County Court or Board of County Commissioners or Fire Chief of a Rural Fire Protection District or other person authorized to issue fire permits pursuant to ORS 477.515, 447.530, 476.380 or 478.960.

(12) "Open Field Burning Permit" means a permit issued by the Department pursuant to ORS 468.458.

(13) "Fire Permit" means a permit issued by a local fire permit issuing agency pursuant to ORS 477.515, 477.530, 476.380 or 478.960.

(14) "Validation Number" means a unique three-part number issued by a local fire permit issuing agency which validates a specific open field burning permit for a specific acreage of a specific day. The first part of the validation number shall indicate the number of the month and the day of issuance, the second part the hour of authorized burning based on a 24 hour clock and the third part shall indicate the size of acreage to be burned (e.g., a validation number issued August 26 at 2:30 p.m. for a 70 acre burn would be 0826-1430-070).

(15) "Open Field Burning" means burning of any perennial grass seed field, annual grass seed field or cereal grain field in such manner that combustion air and combustion products are not effectively controlled.

(16) "Backfire Burning" means a method of burning fields in which the flame front does not advance with the existing surface winds. The method requires ignition of the field only on the downwind side.

(17) "Into-the-Wind Strip Burning" means a modification of backfire burning in which additional lines of fire are ignited by advancing firectly into the existing surface wind after completing the initial backfires. The technique increases the length of the flame front and therefore reduces the time required to burn a field. As the initial burn nears approximately 85% completion, the remaining acreage may be burned using headfiring techniques in order to maximize plume rise.

(18) "Perimeter Burning" means a method of burning fields in which all sides of the field are ignited as rapidly as practicable in order to maximize plume rise. Little or no preparatory backfire burning shall be done."

(19) "Regular Headfire Burning" means a method of burning fields in which substantial preparatory backfiring is done prior to ignition of the upwind side of the field.

[~~(20) "Approved Field Sanitizer" means any field burning device that has been approved by the Department as an alternative to open field burning.~~

~~(21) "Approved Experimental Field Sanitizer" means any field burning device that has been approved by the Department for trial as a potential alternative to open burning or as a source of information useful to further development of field sanitizers.~~

~~(22) "After Smoke" means persistent smoke resulting from the burning of a grass seed or cereal grain field with a field sanitizer, and emanating from the grass seed or cereal grain stubble or accumulated straw residue at a point 10 feet or more behind a field sanitizer.~~

~~(23) "Leakage" means any smoke resulting from the use of a field sanitizer which is not vented through a stack and is not classified as after smoke.~~

~~(24) "Approved Pitot Field Sanitizer" means any field burning device that has been observed and endorsed by the Department as an acceptable but improvable alternative to open field burning, the operation of which is expected to contribute information useful to further development and improved performance of field sanitizers.~~]

(20) [~~(25)~~] "Approved Alternative Method(s)" means any method approved by the Department to be a satisfactory alternative method to open field burning.

(21) [~~(26)~~] "Approved Interim Alternative Method" means any interim method approved by the Department as an effective method to reduce or otherwise minimize the impact of smoke from open field burning.

(22) [~~(27)~~] "Approved Alternative Facilities" means any land, structure, building, installation, excavation, machinery, equipment or device approved by the Department for use in conjunction with an Approved Alternative Method or an Approved Interim Alternative Method for field sanitation.

(23) [~~(28)~~] "Drying Day" means a 24-hour period during which the relative humidity reached a minimum less than 50% and no rainfall occurred.

[~~(29) "Unlimited Ventilation Conditions" means atmospheric conditions which provide a mixing depth of 5000 feet or greater and a ventilation index of 32.5 or greater.~~]

(24) "Basic Quota" means an amount of acreage established for each permit jurisdiction, including fields located in priority areas, in a manner to provide, as reasonably as practicable, an equitable opportunity to burn.

(25) "Priority Area Quota" means an amount of acreage established for each permit jurisdiction, for fields in priority areas, in a manner to provide, as reasonably as practicable, an equitable opportunity to burn.

(26) "Effective Mixing Height" means either the actual plume rise as measured or the calculated mixing height, whichever is greater.

(27) "Cumulative Hours of Smoke Intrusion in the Eugene-Springfield Area" means the average of the total cumulative hours of nephelometer readings at the Eugene and Springfield sites which exceed the preexisting background readings by 1.8×10^{-4} b-scat units or more and which have been determined by the Department to have been significantly contributed to by field burning. For each hour of nephelometer reading which exceeds the preexisting background readings by 5.0×10^{-4} b-scat or more, two hours shall be added to the total cumulative hours for that site.

26-010 GENERAL PROVISIONS. The following provisions apply during both summer and winter burning seasons in the Willamette Valley unless otherwise specifically noted.

(1) Priority for Burning. On any marginal day, priorities for agricultural open burning shall follow those set forth in ORS 468.450 which give perennial grass seed fields used for grass seed production first priority, annual grass seed fields

used for grass seed production second priority, grain fields third priority and all other burning fourth priority.

(2) Permits required.

(a) No person shall conduct open field burning within the Willamette Valley without first obtaining a valid open field burning permit from the Department and a fire permit and validation number from the local fire permit issuing agency for any given field for the day that the field is to be burned.

(b) Applications for open field burning permits shall be filed on Registration/Application forms provided by the Department.

(c) Open field burning permits issued by the Department are not valid until acreage fees are paid pursuant to ORS 468.480(1)(b) and a validation number is obtained from the appropriate local fire permit issuing agency for each field on the day the field is to be burned.

(d) As provided in ORS 468.465(1), permits for open field burning of cereal grain crops shall be issued only if the person seeking the permits submits to the issuing authority a signed statement under oath or affirmation that the acreage to be burned will be planted to seed crops (other than cereal grains, hairy vetch, or field pea crops) which require flame sanitation for proper cultivation.

(e) Any person granted an open field burning permit under these rules shall maintain a copy of said permit at the burn site or be able to readily demonstrate authority to burn at all times during the burning operation and said permit shall be made available for at least one year after expiration for inspection upon request by appropriate authorities.

(f) At all times proper and accurate records of permit transactions and copies of all permits shall be maintained by each agency or person involved in the issuance of permits, for inspection by the appropriate authority.

(g) Open field burning permit issuing agencies shall submit to the Department on forms provided, weekly summaries of field burning activities in their permit jurisdiction during the period July 1 to October 15. Weekly summaries shall be mailed and postmarked no later than the first working day of the following week.

(3) Fuel conditions shall be limited as follows:

(a) All debris, cuttings and prunings shall be dry, cleanly stacked and free of dirt and green material prior to being burned, to insure as nearly complete combustion as possible.

(b) No substance or material which normally emits dense smoke or noxious odors may be used for auxiliary fuel in the igniting of debris, cuttings or prunings.

[~~(c)--The Department may, on a field by field basis, prohibit burning of fields containing high moisture content stubble and/or regrowth material which, when burned, would result in excessive low level smoke.~~]

(4) In accordance with ORS 468.450 the Department shall establish a schedule which specifies the extent and type of burning to be allowed each day. During the time of active field burning, the Department shall broadcast this schedule over the Oregon Seed Council radio network operated for this purpose, on an as needed basis, depending on atmospheric and air quality conditions.

(a) Any person open burning or preparing to open burn under these rules shall conduct the burning operation in accordance with the Department's burning schedule.

(b) Any person open burning or preparing to open burn fields under these rules shall monitor the Department's field burning schedule broadcasts and shall conduct the burning operations in accordance with the announced schedule.

(5) Any person open field burning under these rules shall actively extinguish all flames and major smoke sources when prohibition conditions are imposed by the Department. Normal after smoulder excepted.

26-011 CERTIFIED ALTERNATIVE TO OPEN FIELD BURNING.

[~~(1)--Approved pilot field sanitizers, approved experimental field sanitizers, or propane flamers may be used as alternatives to open field burning subject to the provisions of this section.~~

~~(2)--Approved pilot field sanitizers.~~

~~(a)--Procedures for submitting application for approval of pilot field sanitizers:~~]

[Applications shall be submitted in writing to the Department and shall include, but not be limited to, the following:

(i) Design plans and specifications;

(ii) Acreage and emission performance data and rated capacities;

(iii) Details regarding availability of repair service and replacement parts;

(iv) Operational instructions.

(b) Emission Standards for Approved Pilot Field Sanitizers.

(A) Approved pilot field sanitizers shall be required to demonstrate the capability of sanitizing a representative harvested grass or cereal grain field with an accumulative straw and stubble fuel load of not less than 1.0 ton/acre, dry weight basis, and which has an average moisture content not less than 10%, at a rate of not less than 85% of rated maximum capacity for a period of 30 continuous minutes without exceeding emission standards as follows:

(i) Main stack: 20% average opacity;

(ii) Leakage: not to exceed 20% of the total emissions.

(iii) After-smoke: No significant amounts originating more than 25 yards behind the operating machine.

(B) The Department shall certify in writing to the manufacturer, the approval of the pilot field sanitizer within thirty (30) days of the receipt of a complete application and successful compliance demonstration with the emission standards of 2(b)(A). Such approval shall apply to all machines built to the specifications of the Department certified field sanitation machine.

(C) In the event of the development of significantly superior field sanitizers, the Department may decertify approved pilot field sanitizers previously approved, except that any unit built prior to this decertification in accordance with specifications of previously approved pilot field sanitizers shall be allowed to operate for a period not to exceed seven years from the date of delivery provided that the unit is adequately maintained as per (2)(c)(A).

(c) Operation and/or modification of approved pilot field sanitizers.

(A) Operating approved pilot field sanitizers shall be maintained to design specifications (normal wear expected) i.e., skirts, shrouds, shields, air bars, ducts, fans, motors, etc., shall be in place, intact and operational.

(B) Modifications to the structure or operating procedures which will knowingly increase emissions shall not be made.

(C) Any modifications to the structure or operating procedures which result in increased emissions shall be further modified or returned to manufacturer's specifications to reduce emissions to original levels or below as rapidly as practicable.

(D) Open fires away from the sanitizers shall be extinguished as rapidly as practicable.

(3) Experimental field sanitizers not meeting the emission criteria specified in 2(b)(A) above, may receive Department authorization for experimental use for not more than one season at a time, provided:

(a) The operator of the field sanitizers shall report to the Department the locations of operation of experimental field sanitizers.]

(1) The Department may certify approved alternative methods of field sanitation and straw utilization and disposal on a permanent or interim basis provided the applicant for such certification:

(a) Provides information adequate to determine compliance with such emissions standards as may be developed pursuant to subsection (2) of this section as well as other State air, water, solid waste, and noise laws and regulations, and

(b) Operates any associated equipment subject to subsection (3) of this section or other operational standards as may be established by the Department.

(2) Pursuant to ORS 468.472 the Commission shall establish emission standards for alternative methods to open field burning. Such standards shall be set to insure an overall improvement in air quality as a result of the use of the alternative as compared to the open field burning eliminated by such use.

(3) Mobile field sanitizers and other alternative methods of field sanitation specifically approved by the Department, and propane flamers are considered alternatives to open field burning for the purposes of fee refunds pursuant to ORS 468.480 and may be used subject to the following provisions:

(a) [~~(b)~~] Open fires away from the machines shall be extinguished as rapidly as practicable.

(b) [~~(b)~~] Adequate water supply shall be available to extinguish open fires resulting from the operation of field santizers.

(c) [~~(4)~~] Propane flamers[~~:---Propane-flaming-is~~] may be used as an approved alternative to open field burning provided that all of the following conditions are met:

(a) Field sanitizers are not available or otherwise cannot accomplish the burning.

(b) The field stubble will not sustain an open fire.

(c) One of the following conditions exist:

(A) The field has been previously open burned and appropriate fees paid.

(B) The field has been flailchopped, mowed, or otherwise cut close to the ground and loose straw has been removed to reduce the straw fuel load as much as practicable.

26-012 REGISTRATION AND AUTHORIZATION OF ACREAGE TO BE OPEN BURNED.

(1) On or before April 1 of each year, all acreages to be open burned under this rule shall be registered with the local fire permit issuing agency or its authorized representative on forms provided by the Department. A nonrefundable $1.00 per acre registration fee shall be paid at the time of registration.

(2) Registration of acreage after April 1 of each year shall require:

(a) Approval of the Department.

(b) An additional late registration fee of $1.00 per acre if the late registration is determined by the Department to be the fault of the late registrant.

(3) Copies of all Registration/Application forms shall be forwarded to the Department [~~and-the-Executive-Department~~] promptly by the local fire permit issuing agency.

(4) The local fire permitting agency shall maintain a record of all registered acreage by assigned field number, location, type of crop, number of acres to be burned and status of fee payment for each field.

(5) Burn authorizations shall be issued by the local fire permit issuing agency up to daily quota limitations established by the Department and shall be based on registered feepaid acres and shall be issued in accordance with the

priorities established by subsection 26-010(1) of these rules, except that fourth priority burning shall not be permitted from July 15 to September 15 of any year unless specifically authorized by the Department.

(6) No local fire permit issuing agency shall authorize open field burning of more acreage than may be sub-allocated annually to the District by the Department pursuant to section 26-013(5) of these rules.

26-013 LIMITATION AND ALLOCATION OF ACREAGE TO BE OPEN BURNED.

(1) Except for acreage to be burned under 26-013(6) and (7), the maximum acreage to be open burned under these rules[~~:~~] shall not exceed that amount authorized under applicable State and Federal law.

[~~(a) Shall not exceed 180,000 acres annually;~~

~~(b) May be further reduced such that, if by September 7 of each year, the average of total cumulative hours of nephelometer readings exceeding 2.4 x 10^{-4} B scat units at Eugene and Springfield, which have been determined by the Department to have been significantly caused by field burning, equals or exceeds 16 hours, the maximum acreage to be open burned under these rules shall not exceed 150,000 acres and the sub-allocation to the fire permit issuing agencies shall be reduced accordingly, subject to the further provisions that:~~

~~(A) Unused permit allocations may be validated and used after the 150,000 acre cutoff only on untimited ventilation days as may be designated by the Department, and~~

~~(B) The Commission may establish a further acreage limitation not to exceed 15,000 acres over and above the 150,000 acre limitation and authorize permits to be issued pursuant thereto, in order to provide growers of bentgrass seed crops and other late maturing seed crops opportunity to burn equivalent to that afforded growers of earlier maturing crops;~~]

(2) Any revisions to the maximum acreage to be burned, allocation procedures, permit issuing procedures or any other substantive changes to these rules affecting the open field burning program for any year shall be made prior to June 1 of that year. In making these rule changes the Commission shall consult with Oregon State University (OSU) and may consult with other interested agencies.

(3) Acres burned on any day by approved[~~field sanitizers and approved experimental field sanitizers and propane flamers~~] alternative methods shall not be be applied to open field burning acreage allocations or quotas, and such [~~equipment~~] operations may be [~~operated~~] conducted under either marginal or prohibition conditions.

(4) In the event that total registration is less than or equal to the acreage allowed to be open burned under section 26-013(1) all registrants shall be allocated 100 percent of their registered acres.

(5) In the event that total registration exceeds the acreage allowed to be open burned under 26-013(1) the Department may issue acreage allocations to growers totaling not more than 110 percent of the acreage allowed under section 26-013(1). The Department shall monitor burning and shall cease to issue burning quotas when the total acreage reported burned equals the maximum acreage allowed under section 26-013(1).

(a) Each year the Department shall sub-allocate 110 percent of the total acre allocation established by the Commission, as specified in section 26-013(1), to the respective growers on a pro rata basis of the individual acreage registered as of April 1 to the total acreage registered as of April 1.

(b) [Except as provided in subsection (1)(b) of this section;] The Department shall sub-allocate the total acre allocation established by the Commission, as specified in section 26-013(1) to the respective fire permit issuing agencies on a pro rata share basis of the acreage registered within each fire permit issuing agency's jurisdiction as of April 1 to the total acreage registered as of April 1.

(c) In an effort to insure that permits are available in areas of greatest need, to coordinate completion of burning, and to achieve the greatest possible permit utilization, [the Department may adjust, in cooperation with the fire permit utilization;] the Department may adjust, in cooperation with the fire districts, allocations of the maximum acreage allowed in section 26-013(1).

(d) Transfer of allocations for farm amanagement purposes may be made within and between fire districts on a one-in/one-out basis under the supervision of the Department. Transfer of allocations between growers are not permitted after the maximum acres specified in section 26-013(1) have been burned within the Valley.

(e) Except for additional acreage allowed to be burned by the Commission as provided for in (6) and (7) of this subsection no fire district shall allow acreage to be burned in excess of their allocations assigned pursuant to (b), (c) and (d) above.

(6) Notwithstanding the acreage limitations under 26-013(1), the Department may allow experimental open burning pursuant to [Section 9 of the 1977 Oregon Laws, Chapter 650; (HB 2196)] ORS 468.490. Such experimental open burning shall be conducted only as may be specifically authorized by the Department and will be conducted for gathering of scientific data, or training of personnel or demonstrating specific practices. The Department shall maintain a record of each experimental burn and may require a report from any person conducting an experimental burn stating factors such as:

1. Date, time and acreage of burn.
2. Purpose of burn.
3. Results of burn compared to purpose.
4. Measurements used, if any.
5. Future application of results of principles featured.

(a) Experimental open burning, exclusive of that acreage burned by experimental open field sanitizers, shall not exceed 7500 acres annually.

(b) For experimental open burning the Department may assess an acreage fee equal to that charged for open burning of regular acres. Such fees shall be segregated from other funds and dedicated to the support of smoke management research to study variations of smoke impact resulting from differing and various burning practices and methods. The Department may contract with research organizations such as academic institutions to accomplish such smoke management research.

(7) Pursuant to ORS 468.475 [(6) and (7)] the Commission may permit the emergency open burning under the following procedures:

(a) A grower must submit to the Department an application form for emergency field burning requesting emergency burning for one of the following reasons;

(A) Extreme hardship documented by:

An analysis and signed statement from a CPA, public accountant, or other recognized financial expert which establishes that failure to allow emergency open burning as requested will result in extreme financial hardship above and beyond mere loss of revenue that would ordinarily accrue due to inability to open burn the particular acreage for which emergency open burning is requested. The analysis shall include an itemized statement of the applicants net worth

and include a discussion of potential alternatives and probable related consequences of not burning.

(B) Disease outbreak, documented by:

An affidavit or signed statement from the County Agent, State Department of Agriculture or other public agricultural expert authority that, based on his personal investigation, a true emergency exists due to a disease outbreak that can only be dealt with effectively and practically by open burning.

The statement must also include at least the following:

i) time field investigation was made,
ii) location and description of field,
iii) crop,
iv) infesting disease,
v) extent of infestation (compared to normal),
vi) necessity and urgency to control,
vii) availability, efficacy and practicability of alternative control procedures,
viii) probable damages or consequences of non-control.

(C) Insect infestation, documented by:

Affidavit or signed statement from the County Agent, State Department of Agriculture or other public agricultural expert authority that, based on his personal investigation, a true emergency exists due to an insect infestation that can only be dealt with effectively and practicably by open burning. The statement must also include at least the following:

i) time field investigation was made,
ii) location and description of field,
iii) crop,
iv) infesting insect,
v) extent of infestation (compared to normal),
vi) necessity and urgency to control,
vii) availability, efficacy, and practicability of alternative control procedures,
viii) probable damages or consequences of non-control.

(D) Irreparable damage to the land documented by [an]:

An affidavit or signed statement from the County Agent, State Department of Agriculture, or other public agricultural expert authority that, based on his personal investigation, a true emergency exists which threatens irreparable damage to the land and which can only be dealt with effectively and practicably by open burning. The statement must also include at least the following:

i) time of field investigation,
ii) location and description of field,
iii) crop,
iv) type and characteristics of soil,
v) slope and drainage characteristics of field,
vi) necessity and urgency to control,
vii) availability, efficacy and practicability of alternative control procedures,
viii) probable damages or consequences of non-control.

(b) Upon receipt of a properly completed application form and supporting documentation the Commission shall within 10 days, return to the grower its decision.

(c) An open field burning permit, to be validated upon payment of the required fees, shall be promtly issued by the Department for that portion of the requested acreage which the Commission has approved.

(d) Application forms for emergency open field burning provided by the Department must be used and may be obtained from the Department either in person, by letter or by telephone request.

(8) The Department shall act, pursuant to this section, on any application for a permit to open burn under these rules within 60 days of registration and receipt of the fee provided in ORS 468.480.

(9) The Department may on a fire district by fire district basis, issue limitations more restrictive than those contained in these regulations when in their judgment it is necessary to attain and maintain air quality.

26-015 WILLAMETTE VALLEY SUMMER BURNING SEASON REGULATIONS

As part of the smoke management program provided for in [Section 6 of Oregon Law 1977, Chapter 650] ORS 468.470 the Department shall schedule the times, places, and amounts of open field burning [conduct a smoke management program which shall include in addition to other provisions covered in these rules] according to the following provisions:

(1) [Classification of Atmospheric Conditions.--All days] As provided for in 468.450 atmospheric conditions will be classified as marginal or prohibition [days] conditions under the following criteria:

(a) Marginal Class N conditions: Forecast northerly winds and a ventilation index [mixing depth] greater than [3500 feet] 12.5.

(b) Marginal Class S conditions: Forecast southerly winds and a ventilation index greater than 12.5.

(c) Prohibition conditions: [Forecast northerly winds and a mixing depth of 3500 feet] A ventilation index of 12.5 or less.

[(2) Quotas:

(a)--Except as provided in this subsection, the total acreage of permits for open field burning shall not exceed the amount authorized by the Department for each marginal day.--Authorizations of acreages shall be issued in terms of single, multiple, or fractional basic quotas or priority area quotas as listed in Table 1, attached as Exhibit A and incorporated by reference into this regulation and schedule, and defined as follows:

(A)--The basic quota of acreage shall be established for each permit jurisdiction, including fields located in priority areas, in a manner to provide, as reasonably as practicable, an equitable opportunity to burn.

(B)--The priority area quota of acreage shall be established for each permit jurisdiction, for fields in priority areas, in a manner to provide, as reasonably as practicable, an equitable opportunity to burn.

(b)--Willamette Valley permit agencies or agents not specifically named in Table 1 shall have a basic quota and priority area quota of 50 acres only if they have registered acreage to be burned within their jurisdiction.

(c)--In no instance shall the total acreage of permits issued by any permit issuing agency or agent exceed that allowed by the Department for the marginal day except as provided for jurisdictions with 50 acre quotas or less as follows: When the Department has authorized one quota or less, a permit may be issued to include all the acreage in one field providing that field does not exceed 100 acres and provided further that no other permit is issued for that day.--Permits shall not be so issued on two consecutive days.

(d)--The Department may designate additional areas as Priority Areas, and may adjust the basic acreage quotas or priority area quotas of any permit jurisdiction, where conditions in its judgment warrent such action.

(2) [(3)] Limitations on Burning Hours.

(a) Burning hours shall be limited to those specifically authorized by the Department each day.

(b) Unless otherwise specifically limited by the Department, burning hours may begin at 9:30 a.m. PDT, under marginal conditions but no open field burning may be started later than one-half hour before sunset or be allowed to continue later than one-half hour after sunset.

(c) [(b)] The Department may alter burning hours according to atmospheric ventilation conditions when necessary to attain and maintain air quality.

(d) [~~(c)~~] Burning hours may be reduced by the fire chief or his deputy when necessary to protect from danger by fire.

(3) Limitations on Locations and Amounts of Field Burning Emissions.

(a) Use of acreage quotas.

(A) In order to assure a timely and equitable distribution of burning, authorizations of acreages shall be issued in terms of single, multiple, or fractional basic quotas or priority area quotas as listed in Table 1, attached as Exhibit A and incorporated by reference into this regulation and schedule.

(B) Willamette Valley permit agencies or agents not specifically named in Table 1 shall have a basic quota and priority area quota of 50 acres only if they have registered acreage to be burned within their jurisdiction.

(C) The Department may designate additional areas as Priority Areas and may adjust the basic acreage quotas or priority area quotas of any permit jurisdiction where conditions in its judgment warrant such action.

(b) Distribution and limitation of burning under various classifications of atmospheric conditions.

[~~(4) Extent and Type of Burning:~~]

(A) [~~(a)~~] Prohibition. Under prohibition conditions, no fire permits or validation numbers for agricultural open burning shall be issued and no burning shall be conducted, except where an auxiliary liquid or gaseous fuel is used such that combustion is essentially completed, [or] an approved field sanitizer is used [:], or when burning is specifically authorized by the Department for determining atmospheric dispersion conditions or for experimental burning pursuant to Section 26-013(6) of this regulation.

(B) [~~(b)~~] Marginal Class N Conditions. Unless specifically authorized by the Department, on days classified as Marginal Class N burning may be limited to the following:

(i) [~~(A)~~] North Valley: one basic quota may be issued in accordance with Table 1 except that no acreage located within the permit jurisdictions of Aumsville, Drakes Crossing, Marion County District 1, Silverton, Stayton, Sublimity, and the Marion County portions of the Clackamas-Marion Forest Protection District shall be burned upwind of the Eugene-Springfield non-attainment area.

(ii) [~~(B)~~] South Valley: one priority area quota for priority area burning may be issued in accordance with Table 1.

(C) [~~(c)~~] Marginal Class S Conditions. Unless specifically authorized by the Department on days classified as Marginal Class S conditions, burning shall be limited to the following:

(i) [~~(A)~~] North Valley: one basic quota may be issued in accordance with Table 1 in the following permit jurisdictions: Aumsville, Drakes Crossing, Marion County District 1, Silverton, Stayton, Sublimity, and the Marion County portion of the Clackamas-Marion Forest Protection District. One priority area quota may be issued in accordance with Table 1 for priority area burning in all other North Valley jurisdictions.

(ii) [~~(B)~~] South Valley: one basic quota may be issued in accordance with Table 1.

(D) [~~(e)~~] In no instance shall the total acreage of permits issued by any permit issuing agency or agent exceed that allowed by the Department for the marginal day except as provided for jurisdictions with 50 acres quotas or less as follows: When the Department has authorized one quota or less, a permit may be issued to include all the acreage in one field providing that field does not exceed 100 acres and provided further that no other permit is issued for that day. Permits shall not be so issued on two consecutive days.

(c) Restrictions on burning based upon Eugene-Springfield air quality.

(A) The Department shall provide for increasing restrictions on burning through increasing the minimum allowable effective mixing height required for burning based upon cumulative hours of smoke intrusions in the Eugene-Springfield area as follows:

(i) Except as provided in (ii) of this subsection, burning shall not be permitted on a marginal day whenever the effective mixing height is less than the minimum allowable height specified in Table 2, attached as Exhibit B and incorporated by reference into this regulation.

(ii) Not withstanding the effective mixing height restrictions of (i) above, the Department may authorize up to 1000 acres total for the Willamette Valley, each marginal day on a field-by-field or area-by-area basis.

(B) Based upon real time monitoring, if, in the absence of field burning, 24-hour total suspended particulate levels are projected to average 135 ug/m^3 or greater the Department shall prohibit burning under north wind conditions.

(d) Restrictions on burning based upon Lebanon air quality.

(A) During 1980, the total acreage burned in the south Valley under southerly winds shall not exceed the maximum acreage burned on a single day in the south Valley during 1978.

(B) **The** Department shall prohibit burning if, based upon real-time monitoring, a violation of federal **or state air quality standards is projected to** occur.

(e) [~~(d)~~] Special restrictions on priority area burning.

(A) No priority acreage may be burned on the upwind side of any city, airport, or highway within the same priority areas.

(B) No south priority acreage shall be burned upwind of the Eugene-Springfield non-attainment area.

(f) [~~(e)~~] Restrictions on burning techniques.

(A) The Department shall require the use of into-the-wind strip-lighting on annual grass seed and cereal crop fields when fuel conditions or atmospheric conditions are such that use of into-the-wind strip-lighting would reduce smoke effects, and specifically the Department shall require such use when:

(i) burning occurs shortly after restrictions on burning due to rainfall have been lifted or when the fields to be burned are wet; or

(ii) it is estimated that plume rise over 3500 feet will not occur.

(B) The Department shall require the use of perimeter burning on all dry fields where no severe fire hazard conditions exist and where strip-lighting is not required. "Severe fire hazards" for purposes of this subsection means where adjacent and vulnerable timber, brush, or buildings exist next to the field to be burned.

(C) The Department shall require regular headfire burning on all fields where a severe fire hazard exists.

(f) Restrictions on burning due to rainfall and relative humidity.

(A) Burning shall not be permitted in an area for one drying day for each 0.10 inch of rainfall received at the nearest measuring station up to a maximum of four drying days.

(B) The Department may on a field-by-field or area-by-area basis waive the restrictions of (A) above when dry fields are available through special preparation or unusual rainfall patterns and wind direction and dispersion conditions are appropriate for burning with minimum smoke impact.

(C) Burning shall not be permitted in an area when relative humidity at the nearest measuring station exceeds 50 percent under forecast northerly winds or 65 percent under forecast southerly winds.

(D) The Department may on a field-by-field or area-by-area basis prohibit the burning of fields containing high moisture content stubble or regrowth material which, when burned, would result in excessive low level smoke.

26-020 WINTER BURNING SEASON REGULATIONS.

(1) Classification of atmospheric conditions:

(a) Atmospheric conditions resulting in computed air pollution index values in the high range, values of 90 or greater, shall constitute prohibition conditions.

(b) Atmospheric conditions resulting in computed air pollution index values in the low and moderate ranges, values less than 90, shall constitute marginal conditions.

(2) Extent and Type of Burning.

(a) Burning Hours. Burning hours for all types of burning shall be from 9:00 a.m. until 4:00 p.m., but may be reduced when deemed necessary by the fire chief or his deputy. Burning hours for stumps may be increased if found necessary to do so by the permit issuing agency. All materials for burning shall be prepared and the operation conducted, subject to local fire protection regulations, to insure that it will be completed during the allotted time.

(b) Certain Burning Allowed Under Prohibition Conditions. Under prohibition conditions no permits for agricultural open burning may be issued and no burning may be conducted, except where an auxilliary liquid or gaseous fuel is used such that combustion is essentially complete, or an approved field sanitizer is used.

(c) Priority for Burning on Marginal Days. Permits for agricultural open burning may be issued on each marginal day in each permit jurisdiction in the Willamette Valley, following the priorities set forth in ORS 468.450 which gives perennial grass seed fields used for grass seed production first priority, annual grass seed fields used for grass seed production second priority, grain fields third priority and all other burning fourth priority.

26-025 CIVIL PENALTIES. In addition to any other penalty provided by law:

(1) Any person who intentionally or negligently causes or permits open field burning contrary to the provisions of ORS 468.450, 468.455 to 468.480, 476.380 and 478.960 shall be assessed by the Department a civil penalty of at least $20, but not more than $40 for each acre so burned.

(2) Any person planting contrary to the restrictions of subsection (1) of ORS 468.465 shall be assessed by the Department a civil penalty of $25 for each acre planted contrary to the restrictions.

(3) Any person who violates any requirements of these rules shall be assessed a civil penalty pursuant to OAR Chapter 340, Division 1, Subdivision 2, CIVIL PENALTIES.

26-030 TAX CREDITS FOR APPROVED ALTERNATIVE METHODS, APPROVED INTERIM ALTERNATIVE METHODS OR APPROVED ALTERNATIVE FACILITIES.

(1) As provided in ORS 468.150, approved alternative methods or approved alternative facilities are eligible for tax credit as pollution control facilities ~~as described in ORS 468.155 through 468.190~~.

(2) Approved alternative facilities eligible for pollution control facility tax credit shall include:

(a) Mobile equipment including but not limited to:

(A) Straw gathering, densifying and handling equipment.

(B) Tractors and other sources of motive power.

(C) Trucks, trailers, and other transportation equipment.

(D) Mobile field sanitizers[~~(approved models and approved pilot models)~~].

and associated fire control equipment.

(E) Equipment for handling all forms of processed straw.

(F) Special straw incorporation equipment.

(b) Stationary equipment and structures including but not limited to:

(A) Straw loading and unloading facilities.

(B) Straw storage structures.

(C) Straw processing and in plant transport equipment.

(D) Land associated with stationary straw processing facilities.

(E) Drainage tile installations which will result in a reduction of acreage burned.

(3) Equipment and facilities included in an application for certification for tax credit under this rule will be considered at their current depreciated value and in proportion to their actual use to reduce open field burning as compared to their total farm or other use.

(4) Procedures for application and certification of approved alternative facilities for pollution control facility tax credit.

(a) Preliminary certification for pollution control facility tax credit:

(A) A written application for preliminary certification shall be made to the Department prior to installation or use of approved alternative facilities in the first harvest season for which an application for tax credit certification is to be made. Such application shall be made on a form provided by the Department and shall include but not be limited to:

(i) Name, address and nature of business of the applicant.

(ii) Name of person authorized to receive Department requests for additional information.

(iii) Description of alternative method to be used.

(iv) A complete listing of mobile equipment and stationary facilities to be used in carrying out the alternative methods and for each item listed include:

(a) Date or estimated future date of purchase.

(b) Percentage of use allocated to approved alternative methods and approved interim alternative methods as compared to their total farm or other use.

(v) Such other information as the Department may require to determine compliance with state air, water, solid waste, and noise laws and regulations and to determine eligibility for tax credit.

(B) If, upon receipt of a properly completed application for preliminary certification for tax credit for approved alternative facilities the Department finds the proposed use of the approved alternative facilities are in accordance with the provisions of ORS 468.175, it shall, within 60 days, issue a preliminary certification of approval. If the proposed use of the approved alternative facilities are not in accordance with provisions of ORS 468.175, the Commission shall, within 60 days, issue an order denying certification.

(b) Certification for pollution control facility tax credit.

(A) A written application for certification shall be made to the Department on a form provided by the Department and shall include but not be limited to the following:

(i) Name, address and nature of business of the applicant.

(ii) Name of person authorized to receive Department requests for

additional information.

(iii) Description of the alternative method to be used.

(iv) For each piece of mobile equipment and/or for each stationary facility, a complete description including the following information as applicable:

(a) Type and general description of each piece of mobile equipment.

(b) Complete description and copy of proposed plans or drawings of stationary facilities including buildings and contents used for straw storage, handling or processing of straw and straw products or used for storage of mobile field sanitizers and legal description of real property involved.

(c) Date of purchase or initial operation.

(d) Cost when purchased or constructed and current value.

(e) General use as applied to approved alternative methods and approved interim alternative methods.

(f) Percentage of use allocated to approved alternative methods and approved interim alternative methods as compared to their farm or other use.

(B) Upon receipt of a properly completed application for certification for tax credit for approved alternative facilities or any subsequently requested additions to the application, the Department shall return within 120 days the decision of the Commission and certification as necessary indicating the portion of the cost of each facility allocable to pollution control.

(5) Certification for tax credits of equipment or facilities not covered in OAR Chapter 340, Section 26-030(1) through 26-030(4) shall be processed pursuant to the provisions of ORS 468.165 through 468.185.

(6) Election of type of tax credit pursuant to ORS 468.170(5).

(a) As provided in ORS 468.170(5), a person receiving the certification provided for in OAR Chapter 340, Section 26-030(4)(b) shall make an irrevocable election to take the tax credit relief under ORS 316.097, 317.072, or the ad volorem tax relief under ORS 307.405 and shall inform the Department of his election within 60 days of receipt of certification documents on the form supplied by the Department with the certification documents.

(b) As provided in ORS 468.170(5) failure to notify the Department of the election of the type of tax credit relief within 60 days shall render the certification ineffective for any tax relief under ORS 307.405, 316.097 and 317.072.

Exhibit A

TABLE 1

FIELD BURNING ACREAGE QUOTAS

NORTH VALLEY AREAS

County/Fire District	Quota	
North Valley Counties	Basic	Priority
Clackamas County		
Canby RFPD	50	0
Clackamas County #54	50	0
Clackamas - Marion FPA	100	0
Estacada RFPD	75	0
Molalla RFPD	50	0
Monitor RFPD	50	0
Scotts Mills RFPD	50	0
Total	425	0
Marion County		
Aumsville RFPD	100	0
Aurora-Donald RFPD	50	50
Drakes Crossing RFPD	100	0
Hubbard RFPD	50	0
Jefferson RFPD	225	50
Marion County #1	200	50
Marion County Unprotected	50	50
Mt. Angel RFPD	50	0

TABLE I

(continued)

County/Fire District	Quota	
North Valley Counties	Basic	Priority
Marion County (continued)		
St. Paul RFPD	125	0
Salem City	50	50
Silverton RFPD	600	0
Stayton RFPD	300	0
Sublimity RFPD	500	0
Turner RFPD	50	50
Woodburn RFPD	125	50
Total	2575	350
Polk County		
Spring Valley RFPD	50	0
Southeast Rural Polk	400	50
Southwest Rural Polk	125	50
Total	575	100
Washington County		
Cornelius RFPD	50	0
Forest Grove RFPD	50	0
Forest Grove, State Forestry	50	0
Hillsboro	50	0
Washington County RFPD #1	50	50
Washington County FPD #2	50	50
Total	300	150

TABLE 1

(continued)

County/Fire District	Quota	
North Valley Counties	Basic	Priority
Yamhill County		
Amity #1 RFPD	125	50
Carlton RFPD	50	0
Dayton RFPD	50	50
Dundee RFPD	50	0
McMinnville RFPD	150	75
Newberg RFPD	50	50
Sheridan RFPD	75	50
Yamhill RFPD	50	50
Total	600	325
North Valley Total	4475	875

TABLE 1

(continued)

SOUTH VALLEY AREAS

County/Fire District	Quota	
South Valley Counties	Basic	Priority
Benton County		
County Non-District & Adair	350	175
Corvallis RFPD	175	125
Monroe RFPD	325	50
Philomath RFPD	125	100
Western Oregon RFD	100	50
Total	1075	500
Lane County		
Coburg RFPD	175	50
Creswell RFPD	75	100
Eugene RFPD		
(Zumwalt RFPD)	50	50
Junction City RFPD	325	50
Lane County Non-District	100	50
Lane County RFPD #1	350	150
Santa Clara RFPD	50	50
Thurston-Walterville	50	50
West Lane RPD	50	0
Total	1225	550
Linn County		
Albany RFPD (inc. N. Albany, Palestine, Co. Unprotected Areas)	625	125
Brownsville RFPD	750	100

TABLE 1

(continued)

County/Fire District	Quota	
South Valley Counties	Basic	Priority
Linn County (continued)		
Halsey-Shedd RFPD	2050	200
Harrisburg RFPD	1350	50
Lebanon RFPD	325	325
Lyons RFPD	50	0
Scio RFPD	175	50
Tangent RFPD	925	325
Total	6250	1225
South Valley Total	8550	2275

Exhibit B

TABLE 2

MINIMUM ALLOWABLE EFFECTIVE MIXING HEIGHT
REQUIRED FOR BURNING BASED UPON THE CUMULATIVE HOURS
OF SMOKE INTRUSION IN THE EUGENE-SPRINGFIELD AREA

Cumulative Hours of Smoke Intrusion In the Eugene-Springfield Area	Minimum Allowable Effective Mixing Height (feet)
0 - 14	no minimum height
15 - 19	4,000
20 - 24	4,500
25 and greater	5,500

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(c) Restrictions on burning based upon air quality.

(A) The Department shall establish the minimum allowable effective mixing height required for burning based upon cumulative hours of smoke intrusions in the Eugene-Springfield area as follows:

(i) Except as provided in (ii) of this subsection, burning shall not be permitted on a marginal day whenever the effective mixing height is less than the minimum allowable height specified in Table 2, attached as Exhibit B and incorporated by reference into this regulation.

(ii) Not withstanding the effective mixing height restrictions of (i) above, the Department may authorize up to 1000 acres total for the Willamette Valley, each marginal day on a field-by-field or area-by-area basis.

(B) During 1980, the total acreage burned in the south Valley under southerly winds shall not exceed the maximum acreage burned on a single day in the south Valley during 1978.

(C) The Department shall prohibit burning if, based upon real-time monitoring, a violation of federal or state air quality standards is projected to occur.

(d) Special restrictions on priority area burning.

(A) No priority acreage may be burned on the upwind side of any city, airport, or highway within the same priority areas.

(B) No south priority acreage shall be burned upwind of the Eugene-Springfield non-attainment area.

(e) Restrictions on burning techniques.

(A) The Department shall require the use of into-the-wind strip-lighting on annual grass seed and cereal crop fields when fuel conditions or atmospheric conditions are such that use of into-the-wind strip-lighting would reduce smoke effects, and specifically the Department shall require such use when:

(i) Burning occurs shortly after restrictions on burning due to rainfall have been lifted or when the fields to be burned are wet; or

(ii) It is estimated that plume rise over 3500 feet will not occur.

(B) The Department shall require the use of perimeter burning on all dry fields where no severe fire hazard conditions exist and where strip-lighting is not required. "Severe fire hazards" for purposes of this subsection means where adjacent and vulnerable timber, brush, or buildings exist next to the field to be burned.

(C) The Department shall require regular headfire burning on all fields where a severe fire hazard exists.

(f) Restrictions on burning due to rainfall and relative humidity.

(A) Burning shall not be permitted in an area for one drying day for each 0.10 inch of rainfall received at the nearest measuring station up to a maximum of four drying days.

(B) The Department may on a field-by-field or area-by-area basis waive the restrictions of (A) above when dry fields are available through special preparation or unusual rainfall patterns and wind direction and dispersion conditions are appropriate for burning with minimum smoke impact.

(C) Burning shall not be permitted in an area when relative humidity at the nearest measuring station exceeds 50 percent under forecast northerly winds or 65 percent under forecast southerly winds.

(D) The Department may on a field-by-field or area-by-area basis prohibit the burning of fields containing high moisture content stubble or regrowth material which, when burned, would result in excessive low level smoke.

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, December 14, 1979, EQC Meeting

Proposed Adoption of Administrative Rules Governing Sand Filter Sewage Treatment Systems, 340-71-037(4)

Background

Chapter 189 Oregon Laws 1979, (House Bill 2680), requires the Commission to adopt rules permitting the installation of the recirculating sand filter, or variations thereof, as a standard alternative to the septic tank and drainfield. Rules are required to be adopted by January 1, 1980. This Legislation further requires the adopted rules to provide standards for construction, installation, maintenance and periodic inspection of sand filter systems, consistent with public health and safety and protection of the waters of the state.

The Director appointed a task force, consisting of Department staff, contract county staff, and private industry representatives, to develop rules for Commission consideration. After several months' effort the task force completed its work in September, 1979.

At its October 19, 1979, meeting, the Commission authorized public hearings on the proposed rules developed by the task force.

After proper notice, public hearings were held on November 1, 1979, in Portland, Medford and Bend, and on November 5, 1979, in Eugene.

In addition to public testimony on the proposed technical rules, the Department invited and received comments on the proposed rules as they might affect land use and statewide planning goals.

At the public hearings the following numbers of persons testified:

Portland	--	1
Bend	--	None
Eugene	--	19
Medford	--	17

In addition to testimony on the technical rules, three agencies commented on land use impacts and possible conflict with statewide planning goals. Those three agencies are:

Oregon Department of Land Conservation and Development
Jackson County Comprehensive Planning Staff
Yamhill County Planning Department

Testimony in both categories, technical and land use, is summarized in the hearings official's report. Attachment "C".

In addition to oral testimony, considerable written testimony was received. Oral testimony was tape recorded. The full text of the written testimony and the tapes are available for Commission review.

Alternatives and Evaluation

There appears to be no alternative to rule adoption considering Legislative mandate.

In its deliberations the Commission needs to consider two major issues. First, whether the rules meet Legislative intent, and second, land use implications of rule adoption. A discussion of the two major issues follows:

Land Use Implications

The Department recognizes that the proposed rules for sand filters, if adopted by the Commission, will have a major impact on land use in the state. Many counties may not have in place other mechanisms to direct and control growth that could result; growth that could occur in the wrong locations, and outstrip services absent these other controls. At the same time, with appropriate planning, the rules should provide the means for greater protection of agricultural lands by allowing home site development of lands considered unsuitable for farming. Also Jackson County Planning Staff testimony (page 3) points out that in some cases sand filter systems rather than sewer extension may acceptably solve health hazards from failing septic systems in communities outside urban growth boundaries (UGB). This would avoid having to deal with development pressures along the new sewer line outside the UGB and save sewage treatment plant capacity for designated urban growth within the boundary.

On the positive side, the adoption of the recirculating sand filter septic system as a standard permitted alternative will probably do much over time to mitigate numerous health hazards in many areas of the county, existing due to failing conventional septic tank systems. This would, to a large degree, preclude the need to provide sewer facilities to such areas, and in turn would probably reduce the need to build additional sewage treatment plant capacity in addition to that needed to serve future development within urban growth boundary areas. This scenario would, in staff's opinion, also reduce the pressure to allow higher density development in such health hazard areas if they were to be served by such alternative systems. The sand filter system should provide greater flexibility in land use planning. Growth patterns may now be developed and directed into logical areas rather than following illogical patterns dictated by soil suitability for septic tanks. In other words, the sand filter will allow local government to decide, rather than the septic tank to dictate, land use. The Commission should render its opinion that the proposed rules do not conflict with statewide planning goals.

Technical Rules for Sand Filters

When House Bill 2680 (Chapter 189 Oregon Laws 1979) was being considered in Legislative Committee, most of the testimony dealt with the "Recirculating" sand filter. The rules being proposed for adoption deal with the "intermittent" sand filter. Basically the proposal by staff is to adopt the "intermittent" sand filter as a conventional system and to place all other variations of the sand filter into an "other" or non-conventional category.

Although most of the Legislative Committee testimony dealt with recirculating sand filters, it is staff's opinion that the intermittent sand filter is much simpler to construct, operate and maintain. The quality of effluent from the intermittent sand filter is equal or superior to that of the recirculating variety. In addition, a number of operating problems have become apparent in the recirculating variety of sand filter in recent months.

Construction costs of the intermittent variety may be somewhat higher than the recirculating variety; however, these extra costs if any, are offset in the long run by simpler construction, and simpler operation and maintenance.

Given the language of Chapter 189 Oregon Laws 1979, to wit: "The Environmental Quality Commission shall adopt rules permitting the installation of the recirculating sand filter, or variations thereof, ..." it is staff's opinion that adoption of the proposed rules will meet Legislative intent, while providing for general use of the most reliable sand filter system.

Summation

1. The Legislature has mandated rules for sand filter sewage systems not later than January 1, 1980. (Chapter 189 Oregon Laws 1979).

2. A task force has developed proposed rules.

3. The proposed rules, after proper notice, have been taken to public hearings at four locations around the state.

4. Testimony from public hearings has been reviewed and evaluated and rule changes made as deemed appropriate.

Director's Recommendation

Based upon the summation, it is recommended that the Commission adopt as permanent rules the proposed rules, 340-71-037(4), as set forth in Attachment "A", to be effective January 1, 1980.

Bill
William H. Young

Attachments: "A" Proposed Rules
"B" Statement of Need for Rule Making
"C" Hearing Officer's Report

T. Jack Osborne/Mark Ronayne:l
229-6442
November 30, 1979

XL0197

340-71-037(4) Sand Filter Rules

(a) Definitions. For the purpose of this subsection, the following definitions apply:

(A) "Conventional sand filter" means a filter with two (2) feet of medium sand designed to filter and biologically treat septic tank or other treatment unit effluent from a pressure distribution system at an application rate not to exceed one and twenty-three hundredths (1.23) gallons per square foot sand surface area per day.

(B) "Medium sand" means a mixture of sand containing at least twenty-five (25) percent by weight sand ranging from one-quarter (0.25) to one-half (0.5) millimeter and less than ten (10) percent by weight soil material smaller than one-quarter (0.25) millimeter. Medium sand may contain up to fifteen (15) percent gravel.

(C) "Pressure distribution lateral" means piping and fittings in pressure distribution systems which distribute septic tank or other treatment unit effluent to filter material through small diameter orifices.

(D) "Pressure distribution manifold" means piping and fittings in a pressure distribution system which supply effluent from pressure transport piping to pressure distribution laterals.

(E) "Pressure distribution system" means any system designed to uniformly distribute septic tank or other treatment unit effluent under pressure to an absorption facility or sand filter.

(F) "Pressure transport piping" means piping which conveys septic tank or other treatment unit effluent to a pressure distribution manifold by means of a pump.

(G) "Sand filter system" means the combination of septic tank or other treatment unit, dosing tank, effluent pump(s) and controls, piping and fittings, sand filter, absorption facility or effluent reuse method used to treat sewage.

(H) "Saprolite" means weathered material underlying the soil that grades from soft, thoroughly decomposed rock, to rock that has been weathered sufficiently so that it can be broken in the hands or cut with a knife. It does not include hard bedrock or hard fractured bedrock. Saprolite has rock structure instead of soil structure.

(b) All provisions of OAR, Chapter 340, Divisions 71 and 72 and Appendixes thereto shall apply to sand filter systems except where stated otherwise in this subsection.

(c) Permits Required for Construction. Without first obtaining applicable permits, no person shall construct, install or operate a sand filter system.

(d) Fees. In addition to applicable state building codes fees, the following fees shall apply to sand filter systems:

	Maximum Fee
New site evaluation; first lot	$120
Construction installation permit (with favorable evaluation report)	$ 40
Annual sand filter system evaluation fee	$ 40

The Department may waive the annual evaluation fee during years when sand filter field evaluation work is not performed.

(e) Sites Approved for Sand Filter System Installation. Sand filters may be permitted on any site meeting requirements for standard subsurface sewage disposal systems contained under OAR 340-71-030(1), land application under OAR 340-71-037(2) or where disposal trenches (including shallow subsurface irrigation) trenches would be used and all following minimum site conditions can be met:

(A) The highest level attained by a temporary water table would be eighteen (18) inches or more below ground surface for systems requiring serial distribution; or twelve (12) inches or more below ground surface for systems requiring equal distribution. Pressurized distribution trenches may be used on slopes up to twelve (12) percent to achieve equal distribution. Temporary groundwater levels shall be determined pursuant to methods contained in OAR 340-71-030(1).

(B) The highest level attained by a permanent water table would be equal to or more than distances specified below:

Soil Groups	Minimum Separation Distance from Bottom of Effective Sidewall	Minimum Separation Distance from Natural Soil Surface
Gravel, sand, loamy sand, sandy loam	24 inches	48 inches
Loam, silt loam, sandy clay loam, clay loam	18 inches	42 inches
Silty clay loam, silty clay, clay, sandy clay	12 inches	36 inches

A capping fill may be used to achieve these separation distances from permanent groundwater provided the fill is in place and approved by the Director or his authorized representative prior to issuance of a construction installation permit.

Permanent water tables shall be determined in accordance with methods contained in OAR 340-71-030(1).

Sand filters in areas with permanent water tables shall not discharge more than four hundred-fifty (450) gallons effluent per acre except where:

A residential split waste system is proposed for lots of record existing prior to January 1, 1974, which have sufficient area to accommodate a gray water sand filter system.

Groundwater is degraded and specified as no longer a developable resource by the state Department of Water Resources.

A detailed flow net analysis and hydrogeological study disclose loading rates exceeding four hundred fifty (450) gallons per acre per day would not increase nitrate-nitrogen concentration in the groundwater above five (5) mg/l.

(C) Twelve (12) inches or more natural soil occur over fractured bedrock or saprolite diggable with a backhoe so that a standard twenty-four (24) inch deep trench can be installed.

(D) Where slope is thirty (30) percent or less.

(f) Minimum Seepage Area Required and Recommended. The recommended and minimum seepage area required for sand filter absorption facilities is indicated in the following table:

Soil Groups	Effective Sidewall Seepage Area Per 150 Gallons Sewage Flow	
	Recommended	Minimum
Gravel, sand, loamy sand, sandy loam	100	100
Loam, silt loam, sandy clay loam, clay loam	250	150
Silty clay loam, silty clay, sandy clay, clay	300	200
Saprolite or fractured bedrock	250	150

All parcels must have sufficient area of soil meeting requirements of subsection (4) to accommodate a drainfield of recommended size and a fullsized replacement area.

High shrink-swell clays (Vertisols) shall be permitted with a minimum seepage area of two hundred seventy-five (275) square feet and a recommended seepage area of four hundred (400) square feet per one hundred fifty (150) gallons daily sewage flow.

Sites with saprolite, fractured bedrock, gravel, or soil textures of sand, loamy sand, or sandy loam, that meet all other requirements of subsection (4) may utilize sand-filled trenches or a sand filter without a bottom that discharges treated effluent directly into these materials.

(g) Materials and Construction.

(A) General. All materials used in sand filter system construction shall be structurally sound, durable and capable of withstanding normal stresses incident to installation and operation. Component parts subject to malfunction or excessive wear shall be readily accessible for repair and shall be easily replaced.

Nothing in these rules shall be construed to set aside applicable building, electrical or other codes. Such codes shall be followed to the extent they are applicable and required. An electrical permit and inspection from the Department of Commerce or its Administrative Authority is required to ensure safe pump control and wiring installation. A structural permit is required from local building authorities where reinforced concrete sand filter containers will be used.

All system piping, tanks and filter containers shall be placed over a stable leveling base.

Structures located in high groundwater areas shall be weighted or provided with an antibuoyancy device to prevent floatation.

(B) Septic Tanks. Septic tanks used in sand filter systems shall comply with all requirements under OAR 340-71-025, Appendix A and the septic tank inlet shall be vented by a tee of cast-iron or other approved material.

Tanks shall have a lidded twenty-four (24) inch or greater diameter watertight riser located over the inlet tee and the access manhole. Risers shall extend to ground surface and be provided with weighted or securely fastened lids. The ground surface shall slope away from the top of each riser access lid to prevent water from entering the septic tank.

In areas of high groundwater, septic tanks shall be water tested to ensure watertightness after installation by use of either an exfiltration or infiltration test. Tests shall be conducted with at least a two (2) feet differential between inside and outside water surfaces. The acceptable leakage rate shall be less than five (5) percent of the nominal tank gallonage. All tests shall be performed with the tank filled to its normal operating level.

(C) Dosing Tanks Dosing tanks used in sand filter systems shall be watertight and constructed of concrete, fiberglass or other approved materials. Tanks shall be constructed to withstand all loads imposed on walls and bottoms.

The minimum horizontal dimension of a tank shall be four (4) feet.

The minimum liquid capacity of a tank shall be equal to or greater than the projected daily sewage flow or four hundred seventy (470) gallons (63 $ft.^3$) whichever is greater. The liquid depth used in calculating the liquid capacity of a tank shall

be measured from the invert of the inlet to the tank bottom. Tanks shall have a liquid storage capacity of at least one hundred twenty-five (125) gallons (17 $ft.^3$) between the alarm level and the inlet pipe invert.

Tanks shall be provided with a lidded watertight twenty-four (24) inch or greater diameter riser which extends to the finish ground surface. The ground surface shall slope away from the top of the riser access lid to prevent water from entering the tank. Risers shall be provided with a weighted or securely fastened lids.

Fiberglass dosing tanks shall be a minimum of one-fourth (1/4) inch thick and constructed with a glass to fiber ratio of 40:60 percent with no exposed glass fiber.

In areas of high groundwater, dosing tanks used in sand filter systems shall be tested to ensure watertightness in the same manner as septic tanks used in sand filter systems.

Each commercial manufacturer of prefabricated dosing tanks shall provide (2) two complete sets of plans and specifications with written certification to the Department that such tanks distributed for use within subsurface or alternative sewage disposal systems in Oregon will comply with all requirements of this subsection. These plans and specifications shall be prepared by a registered professional engineer when necessary. This approval process shall not apply where the where the dosing tank is a septic tank which meets all requirements of this subsection and which has been previously approved.

Prefabricated tanks shall bear the name of the manufacturer or a Department certification number at the tank's uppermost face when so approved.

(D) Pumps, Controls and Alarms. Pumps, controls and alarms used in sand filter systems shall comply with Oregon's electrical code, provisions under Appendix B of OAR 340-71 and the following minimum requirements:

Motors shall be continuous-duty, single-phase with built-in automatic reset-overload protection on a separate starting winding.

Pumps shall have durable impellers of bronze, cast iron, or synthetic materials approved by the Department.

Submersible pumps shall be provided with an easy, readily accessible means of electrical and plumbing disconnect and a non-corrosive lifting device as a means of removal for servicing.

Pumps shall be automatically controlled by sealed mercury switches with a minimum mercury tube rating of twelve (12) amps at one hundred fifteen (115) VAC.

Weather-protected, corrosion-resistant NEMA 3R pump control panels shall be used for outdoor panel installations. There shall be means for disconnecting power to the pump at the control panel. Control relays shall be epoxy-encased coils with terminal strips for field electrical connection.

A corrosion-resistant, waterproof junction box/conduit seal-off assembly with motor and sensor cord fittings, an approved heat-shrink seal or equivalent shall be provided at the dosing tank as a means of electrical connection.

An audible, waterproof high level alarm with manual silence switch shall be located near the building served by the sand filter system. Alarm and pump controls shall be on separate circuits. If the alarm is located inside a building, it shall be an audio visual type with silence switch. The mercury float switch regulating the high-water-level alarm shall be located at least five (5) inches above the "on"-level.

(B) Sand Filter Piping. Piping valves and fittings for the sand filter distribution system shall meet the following minimum requirements:

All pressure transport piping and fittings shall be SCH 40 PVC or other approved materials. Piping shall be uniformly supported along the trench bottom. Backfill shall be free of large rock or material which will damage piping.

A shut-off valve shall be installed in a readily accessible location prior to the pressure distribution manifold.

Pressure distribution manifold and distribution lateral piping shall be at least 160 psi PVC pipe meeting ASTM D 2241. Joint cement compounds shall conform to ASTM D 2564.

(h) Conventional Sand Filter Design.

(A) Flows. Conventional sand filter systems shall be limited to sewage flows of six hundred (600) gallons or less per day without special Department authorization.

Flows of four hundred fifty (450) gallons per day shall be used in determining the minimum sand surface area required for a single-family dwelling.

Flows of two hundred (200) gallons per day shall be used in determining minimum sand surface area required for individual residential gray-water filters.

(B) Minimum Filter Area. Sand filters shall have sufficient area to infiltrate no more than one and twenty-three hundredths (1.23) gallons septic tank effluent per square foot medium sand surface per day.

Sand filter container, piping, medium sand, gravel, gravel cover, and soil crown material for a sand filter system discharging to disposal trenches shall be constructed pursuant to minimum specifications indicated in Diagrams 27 and 28 unless otherwise authorized by the Department, and the following:

Holes perforating pressure distribution laterals shall be at least three-sixteenths (3/16) inch diameter. At least one (1) hole shall be provided for each twelve (12) square feet of sand surface.

Filter containers shall be constructed of reinforced concrete, a plastic sheet membrane liner or other approved materials which will effectively exclude groundwater and will contain the sand, gravel, septic tank effluent and soil crown cover for at least a twenty (20) year service life.

(i) Other Sand Filter Designs. Other sand filters which vary in design from the conventional sand filter may be permitted at the discretion of the Department if they can be demonstrated to produce comparable effluent quality.

(A) Pre-Application Submittal. Prior to submittal of an application for a construction permit for a variation of the conventional sand filter, a preliminary submittal shall be made to the Department and a written approval received in return. The submittal shall contain at least the following:

Effluent quality from operating systems

--Parameters to be sampled:

BOD_5
Suspended solids
Fecal coliform
Nitrogen; Ammonia, Nitrate and Total Kjeldahl Nitrogen

--Filter effluent quality samples shall be collected and analysed by a testing agency acceptable to the Department using procedures identified in the latest edition of "Standard Methods for the Examination and Wastewater," published by the American Public Health Association, Inc.

--The duration of filter effluent testing shall be sufficient to ensure results are reliable and applicable to anticipated field operating conditions. The length of the evaluation period and number of data points shall be specified in the test report.

A description of unique technical features and process advantages.

Design Criteria, loading rates, etc.

Filter media characteristics.

A description of operation and maintenance details and requirements.

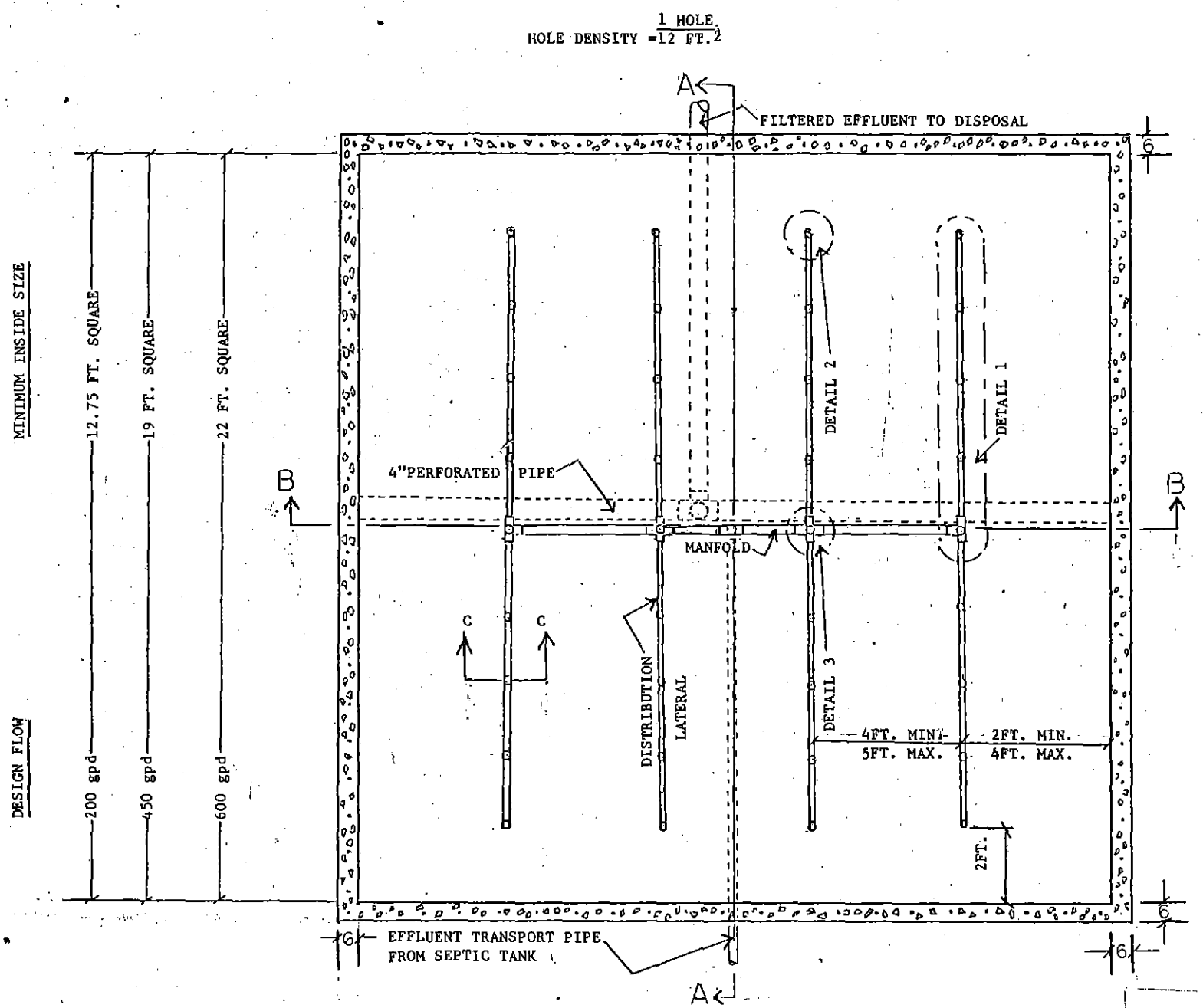
Any additional information specifically requested by the Department.

(B) Construction Procedure. Following pre-application approval a permit application shall be submitted in the usual manner. Applications shall include applicable drawings, details and written specifications to fully describe proposed construction and allow system construction by contractors. Included must be the specific site details peculiar to that application, including soils data, groundwater location, slope, setbacks, existing structures, wells, roads, streams, etc. Applications shall include a manual proposed for homeowner use in operation and maintenance of the system. The designer shall provide the Department written certification that work conformed with the approved design and permit terms upon construction completion.

(j) Sand Filter System Operation and Maintenance. Sand filter operation and maintenance tasks and requirements shall be as specified on the permit. Where a conventional sand filter system or other sand filter system with comparable operation and maintenance requirements is used, the system owner shall be responsible for the continuous operation and maintenance of the system.

The owner of any sand filter system shall provide the Department written verification that the system's septic tank has been pumped at least once each forty-eight (48) months by a licensed sewage disposal service business. Service start date shall be assumed to be the date of issuance of the Certificate of Satisfactory Completion. The owner shall provide the Department or its contract agent certification of tank pumping within two (2) months of the date of pumping.

No permit shall be issued for the installation of any other sand filter which requires operation and maintenance significantly greater than the conventional sand filter unless responsibility for system operation and maintenance is vested in a public entity, such as a city, county, county service district, sanitary authority, or other public entity, which the Department determines as having proper statutory authority and adequate resources to carry out such responsibility, unless other arrangements meeting the approval of the Director have been made which will ensure adequate operation and maintenance of the system. Each permitted installation may be inspected by the Department or responsible public entity at least every twelve (12) months and checked for necessary corrective maintenance for which an annual system evaluation fee shall be assessed. The system owner shall agree through perpetual easement, to provide the Department or responsible public entity access to the sand filter system at a reasonable time to perform system evaluations.



SAND FILTER PLAN

DIAGRAM 27
--SEE DIAGRAM 28 FOR SECTIONS A-A, B-B, AND C-C
--SEE TABLES 9, 10, AND 11

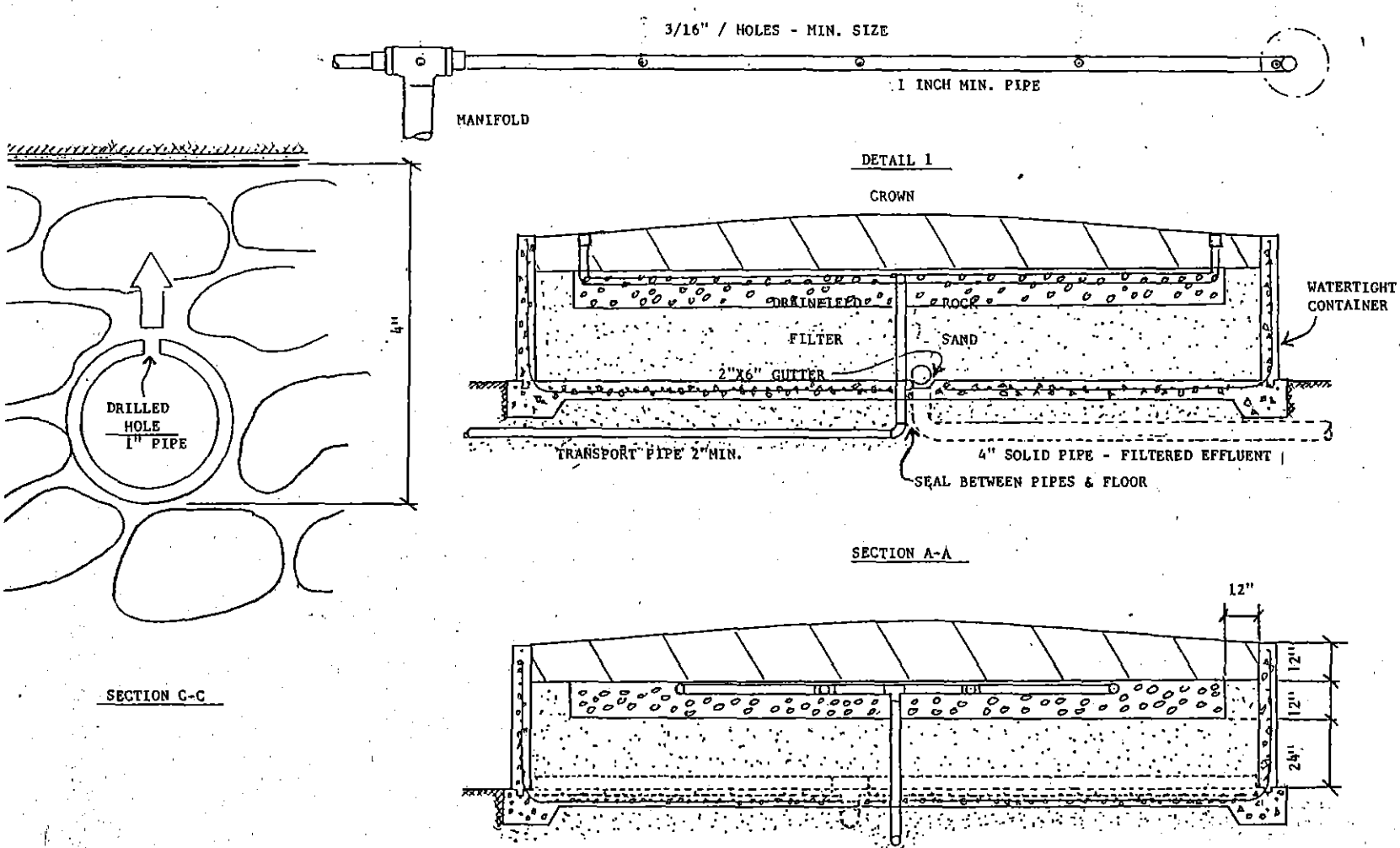

UNIFORMLY SPACED HOLES
ON TOP OF PIPE
3/16" / HOLES - MIN. SIZE
1 INCH MIN. PIPE
MANIFOLD
DETAIL 1
CROWN
DRAINFIELD
ROCK
FILTER
SAND
2"X6" GUTTER
WATERTIGHT
CONTAINER
TRANSPORT PIPE 2"MIN.
4" SOLID PIPE - FILTERED EFFLUENT
SEAL BETWEEN PIPES & FLOOR
4"
DRILLED
HOLE
1" PIPE
SECTION C-C
SECTION A-A
12"
12"
12"
24"
SECTION B-B
SOIL FLUSH W/THREADED
END CAP OR PLUG
SOIL
4"
12"
DETAIL 2
1" LATERAL
2" MANIFOLD
CROSS OR EQUIV.
DRILLED
HOLE
DETAIL 3

DIAGRAM 28

TABLE 9

PUMP CAPACITIES

FOR PRESSURE DISTRIBUTION LATERAL DESIGNS

WITH 5 FEET AVERAGE HEAD ON HOLES

DESIGN FLOW (gpd)	MINIMUM FILTER AREA $\div 1.23 \frac{gal}{day\ Ft^2}$ (Ft^2)	MINIMUM NUMBER OF HOLES $\div 12 \frac{Ft^2}{HOLE}$	MINIMUM PUMP CAPACITIES IN G.P.M.					
			X0.93 gpm PER 3/16" HOLE	X1.65 gpm PER 1/4" HOLE	X2.57 gpm PER 5/16" HOLE	X3.71 gpm PER 3/8" HOLE	X5.04 gpm PER 7/16" HOLE	X6.59 gpm PER 1/2" HOLE
200	163	14	13	23	36	52	71	92
450	366	30	10→15 28 22→33	50	77	111	152	198
600	488	40	37 29→44	67	103	148	203	264

--REDUCE BY .775 FOR 3 FEET OF HEAD

--INCREASE BY 1.18 FOR 7 FEET OF HEAD

--SEE TABLES 10 AND 11 AND FIGURES 27 AND 28

TABLE 10

HEAD LOSS - FT/100 FT OF PIPE

FLOW GPM	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
Q	H_f	H_f	H_f	H_f	H_f	H_f	H_f	H_f	H_f
1	.111								
2	.380	.102							
3	.775	.208	.099						
4	1.31	.346	.164						
5	1.92	.515	.240						
6	2.70	.714	.334	.102					
8	4.59	1.19	.556	.168					
10	6.90	1.78	.834	.249	.106				
15	14.7	3.76	1.74	.516	.217				
20	25.2	6.42	2.96	.866	.365	.129			
25	38.6	9.74	4.46	1.29	.540	.191			
30		13.6	6.27	1.81	.755	.264			
35		18.2	8.40	2.42	1.01	.348	.095		
40		23.6	10.7	3.12	1.28	.444	.120		
45		29.5	13.5	3.85	1.54	.552	.148		
50			16.5	4.68	1.93	.665	.175		
60			23.6	6.62	2.72	.938	.247		
70				8.86	3.67	1.25	.330		
80				11.5	4.69	1.59	.415		
90				14.3	5.83	1.99	.517		
100					7.13	2.42	.627	.083	
125					10.9	3.72	.959	.127	
150						5.16	1.34	.178	
175						6.90	1.79	.236	
200						8.93	2.27	.300	
225						11.2	2.84	.374	.099
250							3.37	.450	.118
275							4.13	.540	.141
300							4.87	.635	.166
325							5.70	.738	.192
350							6.56	.848	.219
375								.960	.250
400								1.09	.280

H_f = Head Loss in Ft/100 ft of pipe.

SEE FIGURES 27 AND 28
AND TABLES 9 AND 11

TABLE 10

HEAD LOSS--FT/100 FT OF PIPE

Williams-Hazen c = 100

FLOW GPM	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
1	.16						
2	.59	.16					
3	1.25	.33	.16				
4	2.13	.56	.26				
5	3.22	.85	.40				
6	4.51	1.19	.56	.19			
8	7.69	2.02	.95	.33			
10	11.62	3.06	1.44	.50	.17		
15	24.63	6.48	3.06	1.06	.36		
20	41.96	11.03	5.21	1.81	.61	.25	
25	63.43	16.68	7.87	2.74	.92	.38	
30		23.38	11.03	3.84	1.29	.53	
35		31.10	14.68	5.10	1.72	.71	.17
40		39.83	18.80	6.54	2.20	.91	.22
45		49.54	23.38	8.13	2.74	1.13	.28
50		60.21	28.42	9.88	3.33	1.37	.34
60				13.85	4.67	1.92	.47
70				18.42	6.21	2.56	.63
80				23.59	7.96	3.27	.81
90				29.34	9.90	4.07	1.00
100					12.03	4.95	1.22
125					18.21	7.50	1.84
150						10.49	2.58
175						13.95	3.44
200						17.87	4.40
225						22.22	5.47
250							6.65
275							7.94
300							9.32
325							10.82
350							12.41
375							
400							

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TABLE 11

SYSTEM HEAD CALCULATION

A. STATIC LIFT ---------- ____ FEET
(PUMP SUMP LIQUID LEVEL TO PRESSURE DISTRIBUTION LATERALS)

B. TRANSPORT PIPING FRICTION LOSS
LENGTH X RATE OF FRICTION LOSS

$$\_\_\_\_\_ \text{Ft.} \times \_\_\_\_\_ \frac{\text{Ft.}}{100 \text{ Ft}} = \_\_\_\_\_ \text{FEET}$$

C. ALLOWANCE FOR PRESSURE DISTRIBUTION SYSTEM *10 FEET
(INCLUDES DISTRIBUTION PIPING LOSSES AND A 5 FOOT HEAD LOSS THRU HOLES OF PRESSURE LATERALS.)

TOTAL SYSTEM HEAD AND MINIMUM HEAD REQUIREMENT FOR PUMP _____ FEET

* Footnote: In the absence of specific head loss calculations within sand filter piping use 10'.

SEE FIGURES 27 AND 28 AND TABLES 9 AND 10

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the Environmental Quality Commission's intended action to adopt a rule.

Proposed Amendment to OAR 340-71-037, Rules
for Sand Filter Alternative Sewage Systems

A. Legal Authority for rules governing subsurface and alternative sewage disposal is ORS 454.625. Authority for these proposed rules is Chapter 189 Oregon Laws 1979.

B. The need for rulemaking is based upon the fact that Chapter 189 Oregon Laws 1979, (House Bill 2680), adopted by the Oregon State Legislature, 1979 Session, requires the Environmental Quality Commission (EQC) to adopt rules permitting the installation of the recirculating sand filter, or variations thereof, as a standard alternative to the septic tank and drainfield, not later than January 1, 1980. This Legislation further requires the adopted rules to provide standards for construction, installation, maintenance and periodic inspection of sand filter systems, consistent with public health and safety and protection of the waters of the state.

The proposed rules contain provisions that meet legislative intent and thus meet the need for rulemaking.

C. Principal documents relied upon are:

1. Chapter 189 Oregon Laws 1979

2. Management of Small Waste Flows, U.S. Environmental Protection Agency, EPA-600/2-78-173, September 1978

These documents are available from the Department of Environmental Quality, Box 1760, Portland, Oregon 97207.

D. Fiscal Impact--Fiscal impact will fall principally upon the Department of Environmental Quality and its contract county agents; however, it is expected that this extra workload will be absorbed within existing staff allocations and within existing budget limitations. Applications are expected to be processed in a similar manner to that for existing alternative systems.

Mark Ronayne
229-6442
XL4143

HEARING OFFICER'S REPORT

Land Use Testimony

Mr. W. J. Kvarsten, Director, Department of Land Conservation and Development , believes there is a relationship between the proposed rule and goal 11., (Public Facilities and Services). He also believes the proposed rules could impact goal 14 (Urbanization).

The following two paragraphs are quoted directly from Mr. Kvarsten's testimony:

> "In areas which will ultimately be served by urban public facilities (inside urban growth boundaries), the issuance of permits could preclude ultimate urban-level facilities by promoting the establishment of inefficient development patterns. Goal 14 requires a jurisdiction to 'provide for an orderly and efficient transition from rural to urban land use'. Premature development without full urban services should be avoided. In some cases a private system may serve as an interim system, with provisions for conversion to public treatment, when public services become available."
>
> "Each city and county will ultimately have a comprehensive plan and implementing measures which are acknowledged as meeting with the statewide goals. However, each jurisdiction will have its own approach to the public facilities and urbanization goal. In some cases, local jurisdictions may limit or prohibit development on individual systems. Therefore, it is important that DEQ, through the permit consistency rule, continue to involve local government in the decisions made under the proposed rule."

Jackson County Comprehensive Planning Staff

Jackson County has a denial rate for standard subsurface systems on the order of 50 to 55 percent. The unsuitability of soils in the county for the installation of standard subsurface systems has been a "natural" growth limitation/management factor of significant proportions.

Much of the county's rural lands have been subdivided into small parcels; one, two and one-half, and five acres in size. Many of these parcels do not meet standards for subsurface sewage disposal, thus development cannot occur. The county has been unsuccessful in its attempts to down-zone these undevelopable parcels. The county's Comprehensive Planning Staff is concerned that adoption of the sand filter rules will open up to home site development thousands of these small parcels. A large percentage of these parcels will not have public facilities or services such as roads, schools, police and fire protection, etc., available. Apparently the county will be unable to deny construction permits under either the existing or proposed comprehensive plan.

The Planning Staff further feels that the proposal may not be in conformance with LCDC statewide planning goals 2, (land use planning), 5, (open spaces, scenic and historic areas, and natural resources), 13 (energy conservation) and 14 (urbanization).

The following paragraph is quoted directly from testimony:

> "While the impacts for Jackson County under the first scenario" (existing comprehensive plan) "would be greater than those anticipated under the second scenario" (proposed comprehensive plan), "the end result in either case would be increased demands for, and development of, rural lands as residential environments, with a subsequent demand for other types of services and development (commercial and industrial) in outlying areas of the county. For these reasons, staff feels a "statement of land use consistency" is not in order because of the undesirable anticipated adverse and growth inducing impacts associated with the proposed rule and its adoption."

Yamhill County Planning Department

Adoption of the proposed rules may result in "proliferation of non-farm dwellings on small parcels and attendant increase in public facilities (especially roads) and school district expenditures".

In addition, the proposed rules create conflicts with statewide Goal 3, (Agricultural Lands), and result in a possible need to reexamine county land use plans to accommodate new housing patterns.

The following two sentences are quoted directly from testimony:

> "The implications for our county land use plan are very great."

> "The County Planning Staff urges the EQC to carefully consider the broader implications and consequences of sand filter systems to county land use plans as the Commission deliberates on the details of the sand filter systems themselves."

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XL0197.A
November 30, 1979

TECHNICAL RULES TESTIMONY

MEDFORD
November 1, 1979

17 Testified Verbally and/or In Writing

1. Robert S. Forest Medford, Real Estate Salesman

   --Supports land use flexibility provided with adoption of rules.

2. Cliff German Citizen, Jackson County

   --Supports general concept of sand filter systems.

3. Leland Coggins Medford, Builder

   --Does not want specialty trades to monopolize plumbing, mechanical and sand filter system design work.

   --Supports the use of capping fills.

   --Wants 18 inches or more soil over sites shallow to saprolite or fractured rock.

4. Pat Acklin Jackson County Subsurface Staff

   --Thinks operation and maintenance with respect to requiring septic tank pumpout every four years lacks enforceability as written.

   --Wants existing experimental sand filter systems monitoring continued to ensure uniform effluent quality is achieved over an extended period.

   --Generally favors sand filter rules.

5. Ken Cote Sanitarian, Jackson County Subsurface Staff

   --Opposes placing filtered effluent directly into fractured rock. Fears not enough treatment occurs before effluent disposal.

   --Feels a $40 fee for permit issuance will not cover administrative costs, especially since multiple construction inspections will be involved.

   --Feels treatment provided by sand filters inadequate to protect disposal trenches inundated by temporary groundwater from potential health hazards resulting from groundwater contamination. Also feels there will be no hydraulic gradient in high groundwater areas, so filter effluent will not be absorbed in soils.

   --Wants curtain drains to be used as an acceptable method for lowering groundwater tables.

--Wants separation distance chart to be modified to reflect minimum distances associated with an 18 inch deep trench rather than 24 inch deep trench and rules to include provisions for capping fills.

--Objects to 12 inches soil over saprolite rule, fearing breakout of sand filter effluent on ground surfaces, through scarp walls or onto intermittent streamways. Feels such effluent has not undergone adequate treatment to prevent potential health hazards from occurring. Also fears failure in treatment capacity of sand filter system, due to some upset, would increase health hazard risk. Recommends 18 inches natural soil be required versus 12 inches of natural soil suggested by rules. Wants varying, but increased soil depths (i.e. greater than 18") for sites requiring serial distribution. Feels there is the need to keep trench sidewalls bottom bedded in natural soil with at least 6 inches of soil occurring below trench bottoms. Wants more research done in shallow soils before rules are adopted.

--Thinks rules for standard system should be broadened to accept trenches on 30 percent slopes if it is justifiable to do this with sand filtered effluent. This would eliminate otherwise unnecessary variances on sites with deep soils.

--Suggests sizing table in rules indicate minimum sidewall seepage area where trench bottom and sidewalls will be placed in saprolite of fractured rock.

--Opposes open bottom sand filter, stating there is a lack of experimental evidence to support this design. Recommends information be developed through the experimental systems program before a rule permitting open bottom sand filters is adopted.

--Wants to know who is to perform dosing and septic tank water-tightness testing

--Wants permits and inspections for cast-in-place filters and tanks to be obtained through existing buildings codes provisions.

--Thinks a periodic four-year pump-out requirement of sand filter system septic tanks is unenforceable.

--Wants annual or semi-annual inspections of all systems required by rule to insure systems operations are as they should be.

--Doesn't want building permits issued until filter system is completely installed.

--Feels neither state nor local personnel capable of administering sand filter rules. Feels immediate training program is necessary.

6. C. Crafton Citizen, Jackson County

--Thinks sand filters will open up development on most Jackson County acreage now denied standard septic tank-drainfield systems permits.

--Wants filters installed on sites where slopes exceed 30 percent.

--Wants previous county site evaluations honored for sand filter permit consideration.

--Wants DEQ to make sure county personnel and contractors are provided training in the area of sand filter systems.

--Wants DEQ to prepare a brochure describing how the sand filter works and what it is.

--Wants curtain drains to be considered for lowering groundwater to acceptable limits required by proposed rules.

7. Chuck Henke Jackson County Subsurface Staff Sanitarian

--Opposes differentiation of temporary from permanent groundwater.

--Wants rules regarding temporary groundwater to be more rigid for sand filter system sites than standard drainfield systems sites.

--Wants to dewater sites via groundwater interceptors where slopes exceed 5 percent.

--Opposes pressure distribution due to relative installation complexity.

--Wants more soil on sites shallow to bedrock.

Wants 18" minimum on 0-15 percent sloped sites.
Supports capping fill use on such sites.
Wants 24" soil on sites exceeding 15 percent slope.
That is, 18" deep trenches with a 6" cap.

--Opposes open bottom sand filters.

--Wants concrete and electrical portions of sand filter systems to be inspected by buildings codes officials.

--Thinks DEQ should look into the idea of providing a tax incentive or rebate for those who pump their septic tanks.

8. Joseph Nelson Citizen, Eagle Point

--Wants more liberty in the area of cutting and filling. Testimony seemed to be more relevant to existing standard subsurface rules.

--Wants someone to be able to overrule Jackson County staff decisions.

9. Steve Wert Consulting Soil Scientist, Roseburg

--Wants capping fills to be allowed. Recommends cap be in place before permit approval to start drainfield construction is granted.

--Supports idea of variable (i.e. 18-24") trench depth chart for showing separation distances to permanent groundwater. Feels trench depth flexibility needed to allow installations to adapt to field conditions.

--Thinks flexibility of trench design should be allowed. Supports the use of narrower trenches.

--Feels minimum seepage area required for soil groupings is too high. Supports reduction of field sidewall area sizing by recommending 100, 150 and 200 sq. ft. minimum seepage area per bedroom respectively for soil groupings presented in draft rules.

--Does not think so much application information should be required for "non-standard" filters, for example the recirculating sand filters, which have already been well characterized in the field. Wants rules to distinguish between "established" sand filters supported by research literature and newer, less well documented sand filters.

--Feels Lane County intermittent recirculating sand filters fail because sand size is too small.

--Suggests DEQ review literature included in a report from Jack Abney; "An Evaluation of 19 On-site Waste Treatment Systems in Southeastern Kentucky", which describes work with 3'x2'x50' trenches (i.e. an in-trench filter) located in coarse grained soils, for its possible application in well drained soils.

--Supports idea of making septic tanks, used for standard system installations, water-tight in areas of high groundwater.

--Thinks soil scientist's opinion should be considered where wet site installations would be apt to be affected by sidewall smearing.

10. Bill Bowne Consulting Engineer, Douglas County Public Works--Roseburg

--Feels "non-standard" section of rules too cumbersome and too restrictive.

--Suggests DEQ establish a reasonable turnaround time for filter plan review.

--Thinks homeowners should be given the opportunity to maintain their own systems and that DEQ might monitor such systems to ensure they are maintained by the homeowner.

--Feels homeowner responsibilities should be stated clearly so homeowners are accountable and permit terms are enforceable.

--Thinks pumps and tanks, etc., in sand filter rules, should be reflected in requirements for pumps and tanks etc., in standard septic tank-drainfield rules.

--Recommends DEQ continue an ongoing research program which will result in later rule refinement (e.g., land application via irrigation).

--Supports intensive training of regulatory agents.

--Supports idea of requiring a securely fastened or heavy access lid over both the septic tank and dosing tank.

--Recommends DEQ revise dosing tank standards to allow wall thicknesses other than 5 inches for 4 foot diameter manholes.

--Wants sand filter designed category broadened.

11. John Blanchard Josephine County Health Department

--Wants to know if DEQ will supply sieves for determining if filter sand is medium sand.

--Wants DEQ to compose an owners pamphlet.

--Wants to know if curtain drain can be used as groundwater interceptors to make sites approvable that have soils indicating wetness at higher elevation than accepted in sand filter rules.

12. William Couch Business Mgr., Local 418, Plumbers & Fitters, Medford

--Generally supports rules.

--Thinks installation and maintenance of pumps and piping should be performed by mechanical contractors licensed under ORS 447. Says Rogue Valley Building Trades Council concurs with this recommendation.

13. Jackson County Subsurface Staff Memo presented by Ken Kote

--Wants sand filter training for contracting agents before January 1, 1980.

--Wants sand filters to be installed before building permits are issued.

--Wants 12 inch temporary ground rule to be changed to require a minimum of 18 inches of soil between ground surface and the highest level attained by a temporary water table.

--Thinks sand filter installations should be reported via deed records.

--Wants continued monitoring of existing experimental sand filter systems.

--Wants annual or semi-annual inspections to be required to assure operation efficiency of all sand filter systems.

--Wants provision for sizing systems located in saprolite or weathered bedrock.

--Wants 24 inch and deeper trenches where slopes exceed 15 percent. Fears sand filter effluent would "crop-out" otherwise.

--Generally oppose placing sand filter effluent in trenches on sites with 12 inches soil to weathered or fractured rock.

14. Brad Prior Supervising Sanitarian, Jackson County Planning Dept.

--Wants methods and equipment for qualifying sand as medium sand to be identified.

--Feels since experimental criteria require sites have at least 18 inches soil over temporary groundwater, proposed rules ought likewise reflect this figure because no data has been collected from sites with lesser soil depths to high water tables and thus no evidence would support the 12 inch to temporary groundwater rule suggestion. Recommends rules for existing experimental site selection criteria.

--Wants statement placed in rules indicating if groundwater interceptors can be used to lower water tables to acceptable limits established by rule.

--Wants depth of trench in permanent groundwater areas to be flexible (i.e. between 18-24") rather than a hard and fast 24 inches.

--Thinks 12 inches to weathered or fractured bedrock is unsupportable since there is no experimental evidence from such sites.

--Feels 30 percent slope contrary to experimental criteria. Thinks standard drainfield should be permitted if 30 percent slope and deep soils are encountered.

--Thinks 200 sq.ft. seepage area/150 gallons sewage flow for coarse textured soils excessive and greater than what standard rules require.

--Feels footnote, or some form of distinction should be made on the type of claysoil. High shrink-swell soil ought to be looked at differently than soils with other clay minerologies.

--Wants periodic inspections of all sand filter installations to assure they are working successfully.

--Thinks proposed rules, especially if systems fail to work as designed, will greatly increase the risk of health hazard and increase groundwater pollution.

15. George Ward Consulting Engineer, Portland

--Supports capping fills in areas shallow to temporary groundwater.

--Supports use of curtain drains to lower groundwater in wet soils.

--Thinks 30 percent slope requirement too conservative.

--Thinks No_3-N should not be singled out to sand filter systems alone, but should also apply to standard septic tank drainfield installations.

--Opposes idea of establishing a NO_3-N loading density. Thinks this requirement exceeds legislative intent.

--Suggests a statement be incorporated in rules requiring sand filter septic tank and dosing tank be located on a stable leveling base.

16. Neva Nelson Citizen, Jackson County

--Wants past site evaluation records to be used for determining sand filter system eligibility.

17. Jack Dodde Citizen, Medford

--Wants tax returns on rural sites which are determined unsuitable for sand filter, standard drainfield or other type of on-site systems.

PORTLAND
November 1, 1979

1 Testified Verbally and in Writing

Don W. Michaels Business Rep., Plumbers Local Union 51, Portland

--Supports sand filter rules generally.

--Recommends caution in applying systems to sites, especially along the coast where groundwater contamination would be likely if sand filter effluent treatment is inadequate.

--Would like composite diagram of the sand filter system as well as detailed diagrams of each component part.
(e.g. Provide a diagram of the dosing tank along with tank specifications.)

--Wants dosing tanks vented.

--Wants chlorine additives considered at the dosing tank stage.

--Wants all piping, pumps, the dosing tank and allied appurtenances to be construed as "plumbing" as defined under ORS 447 and materials and installation methods to be per that statute.

--Suggests gray water does not break down as readily as combined waste water, thus non-conventional gray water design proposals should be looked at cautiously before permit issuance.

EUGENE
November 5, 1979

19 Testified Verbally and/or in Writing

1. Roy Burns Director, Water Pollution Control Division, Lane County Director of Environmental Management

   --Suggests reduction in proposed sizing of drainfields behind sand filters.

   --Suggests research of soil absorption systems behind sand filters indicates no soil clogging has occurred.

   --Suggests soils occurring along trench effective sidewall be used in sizing disposal trenches.

   --Recommends capping fills and 18 inch deep trenches be allowed in areas of high permanent groundwater.

   --Suggests footnotes for permanent groundwater rules.

   --Concurs with NO_3-N standard proposed in permanent groundwater area of rules.

   --Suggests distribution technique rule governing sand filters be modified to permit pressure distribution systems on sloping ground.

   --Suggest a footnote stating pressure distribution system is acceptable on sloping ground where the highest level attained by temporary groundwater would be at least twelve (12) inches below ground surface.

2. Ron Davis Consultant, Lane County

   --Suggests land application of treated gray water effluent be stressed.

   --Wants DEQ to consider the research of Teske and Heinze on recirculating sand filters.

   --Provided Wisconsin comparison of fecal coliform organisms in gray and combined sewage as a suggested basis for land application.

   --Suggested a standard for the land application of gray water.

   --Provided letter from Merle Teske responding to some of Davis's questions on recirculating sand filters.

   --Felt DEQ has failed to draft rules on the recirculating sand filters as intended by the Legislature.

3. Ray Walter P.E., Eugene

--Generally agrees with basic sand filter proposal.

--Mentions public must recognize cost will be higher for the sand filter, but it generally costs more to construct on problem sites.

--Recommends strong enforcement and monitoring provisions to ensure continuous proper operation of sand filter systems.

4. Jay Chickering Investment Company Partner, Veneta

--Recommends reduction of drainfield sizing behind sand filters.

--Suggests Soil OR 1's be consulted to determine logical disposal line sizing.

--Strongly supports reduction in drainfield sizing based on his 4-1/2 month study of the Alternating Intermittent Sand Filter at the International Paper, Inc., Vaughn facility, which suggests drainfield sizes proposed may be up to five times more than is required to dispose of process waste water.

5. Neil D. Hummel President, Douglas County Board of Realtors, Roseburg

--Wants other varieties of sand filters to be used rather than the intermittent sand filter which he feels is much too expensive. Objects mainly because he feels the intermittent sand filter too costly.

--Opposes mandatory pumpout of septic tank every four years. Thinks inspection schedule suggested for non-standard systems too burdensome.

--Thinks DEQ could require perpetual performance bond from sand filter system installers to insure system is maintained rather than trying to supervise monitoring so closely as an agency.

--Thinks DEQ should remain open to all sorts of sand filter options and keep rules as flexible as possible.

6. Doug Larkins Chairman, Oregon State Assn. of Realtors, Salem

--Thinks proposed drainfield sizing too large.

--Wants public hearings after January 1, 1980, to rediscuss sand filter possibilities. Thinks DEQ is rushing rule adoption too much.

7. Robert Thurmond Citizen, Eugene

--Thinks rules for drainfield sizing too conservative; suggests drainfield size be half what is suggested.

--Wants capping fill provision added to the rules as it is currently

accepted in standard drainfield rules.

--Supports options to concrete sand containment. Thinks concrete too expensive.

--Supports use of pressure distribution to allow drainfields to be installed on slopes up to 30 percent where highest level attained by temporary groundwater would be 12 inches.

--Wants separation distances related to permanent groundwater sites to be reflected for 18 inch deep and 12 inch deep capping fill trenches as well as 24 inch deep trenches.

8. Terry Rahe Consulting Sanitarian and Soil Scientist, CES, Inc., Albany

--Feels the subcommittee on siting and utilization felt a 5 mg/liter NO_3-N level must not be exceeded even when a 450 gallon/acre discharge could be met. Wants groundwater quality background on all shallow aquifers. Where aquifers already exceed 5 mg/l NO_3-N and are not officially recognized as degraded groundwaters by the Water Resources Dept., feels sand filter system placement should be prohibited, even at a loading rate of 450 gallons waste water/ac.

--Feels the Federal Register reflects a recently revised standard on drinking water of 20 mg/l NO_3-N and since the subcommittee originally planned to adopt a loading limit at 1/2 the federal drinking water standard, rules for sand filters should be revised to reflect a No_3-N loading rate of 900 gallons (i.e. 10 mg/l) per acre.

--Generally recommends some NO_3-N loading limit ought to be contained in rules.

--Supports reducing size of proposed drainfields on the basis of field use information reported from drainfields behind sand filters in Douglas and Lane Counties.

--Supports use of capping fills over disposal trenches placed in soils shallow to permanent groundwater.

--Suggests fill construction be accepted by permitting agent before construction permit is issued. This would involve a fill construction observation and follow-up field trip to ensure differential soil settlement is complete before trenches are excavated.

--Suggests design of non-conventional sand filters not be limited to engineers alone. Supports the concept of Department certified individuals including, but not limited to, engineers to complete this task.

9. Ernie Bierman Citizen, Lane County

--Supports idea of larger conventional sand filters than ones loaded at rates of 600 gpd for multiple family or similar dwellings.

--Wants capping fills to be accepted.

10. Ron Davis Consultant, Lane County (also see item 2 for separate written testimony submittal)

--Indicated DEQ ignored data on the recirculating sand filter in its rule development.

--Indicated land application rules were not functional and should be revised so they could be used by the average rural landowner.

--Feels sand filter suggested by rule too large.

--Recommends gray water recirculating sand filters be permitted.

11. Lew E. Bruington Resident, Dexter

--Generally supported sand filter rules.

--Suggested one need not be too concerned about the disposal of filter effluent due to high treatment level.

12. Gary Colwell Lane County Subsurface Staff Engineer, Eugene

--Generally supported proposed rules.

13. Bill Rogers State Representative, District 44

--Stated rules failed to satisfy spirit or letter of the Legislature's intent.

--Wants area of rules to recognize gray water sand filters.

--Criticized DEQ for not having data at Legislative hearing that came forward by the time of the Eugene hearing.

--Wanted to be sure that the intermittent-recirculating and recirculating sand filters could be permitted under system rules.

14. Otto T'Hooft Lane County commissioner

--Wants Lane County to be able to administer sand filter rules.

--Recommends DEQ have all agents examine their denial files and alert parcel owners where field notes indicate a potential for sand filter development exists.

--Wants disposal field sizing requirements to be reduced.

--Wants capping fills in areas with permanent groundwater tables

to be accepted.

--Thinks sand filters are apt to be costly, due to over regulation.

15. Luther Freeman Consultant, Investment Group Partner, Eugene

--Felt sand filter task force generally did a good job in drafting the proposed rules.

16. Tom Heintz Lane County Resident

--Concerned that sand filters might be allowed in the River Road area but prohibited in the Santa Clara area.

17. Ahmad Tabeb Lane County Resident

--Favored cutting back on disposal field sizing.

--Endorsed capping fills over both permanent and temporary groundwater sites.

--Favor preference towards use of the recirculating sand filter.

--Wanted conventional sand filter to be used to serve multiple family dwelling where flows would exceed 600 gpd.

18. Kent Olson Creswell Resident

--Wants Lane County to administer sand filter programs.

--Believes rule implementation will create a bureaucracy.

--Wants conventional sand filter to be available for multiple hookups where flows greater than 600 gpd would be expected.

19. Bill Markham State Representative, Douglas County

--Favored rules emphasizing the recirculating sand filter.

--Urged DEQ to continue to pursue development of inexpensive alternative systems and that the task force should be maintained to assist DEQ in this effort.

--Suggested Bill Young provide him with an explanation of how rules for the conventional filter proposed were arrived at in lieu of the recirculating sand filter discussed before the state Legislature.

MISCELLANEOUS TESTIMONY
RELATED TO NO PARTICULAR HEARING

8 Provided Written Testimony

1. Scott Fitch Hood River County Sanitarian

--Recommends dosing tank requirements in Appendix B be written to match proposed sand filter rules.

--Wants septic tanks to be accepted as dosing tanks for sand filter systems.

2. Carol Steele Citizen, Albany

--Thinks regulating officials should be very sure a system works before it is required. Her standard septic tank-drainfield system apparently never operated successfully and she has recently been asked to replace it with a sand filter she alleged county officials knew little about. She is concerned the same "mistake" may be repeated but at a much greater cost.

3. Chuck Nelson Land Use Consultant, Portland

--Generally supports the adoption of sand filter rules.

--Fears rule relaxation will make some prime agricultural land buildable.

--Feels one acre minimum for NO_3-N loading ought to be relaxed to be consistent with standard systems requirements.

--Supports reduction in drainfield sizing.

--Opposed requiring a repair area for sand filter system drainfields. Thinks rules should clearly state if repair area is required in minimum disposal area requirements.

--Wants standard subsurface rules to be redone.

4. Dwight Ronald Gerber Attorney, Florence

--Wants rules to apply to coastal soils where iron bands at 6 to 12 inch perch groundwater at or near ground surface; especially since organic materials are substantially less than with septic tank effluent so clog matt formation is less likely to occur.

5. William H. Doak Soil Scientist-Consultant, Milwaukie

--Thinks we should be more liberal on setbacks to groundwater interceptors, cutbanks and intermittent streams, since sand filter effluent is of much higher quality.

--Supports use of capping fills to elevate trenches from temporary

and permanent groundwater.

--Supports draining wet soils with groundwater interceptors. Thinks option to dewater soils via field tile should be allowed under the variance program.

--Wants other professions in addition to engineers to be able to design non-conventional sand filters and supervise their construction.

--Feels inspectors should be certified via some formal DEQ training. Concerned that inspections will not be cost-effective and will not be made on a punctual basis.

6. Dwight Hogrefe Citizen, Springfield

--Feels sand filter proposed by rule will be too expensive.

--Wants sand filters to be required on all new rural construction to "protect the public's health and safety'.

7. Dick Polson Chief Soil Scientist, Clackamas County Public Works

--Recommends DEQ define operations permit if it elects to have such a permit.

--Feels rules should be revised to read "sand filter systems may be used on any site which", prior to sand filter siting criteria.

--Feels rules are too liberal in allowing pressurized trenches to be installed on slopes up to 30 percent. Thinks systems apt to fail under such conditions.

--Suggests 18 inch soil be required over seasonal groundwater where slopes exceed 12 percent.

--Suggests 12 inches to temporary groundwater where slopes are less than 12 percent allowing pressure edistribution on slopes up to 12 percent.

--Feels trenches located in permanent groundwater areas should be installed in relationship to the ground's surface.

--Thinks special sizing related NO_3-N loading reductions to split waste systems should be dropped.

--Wants DEQ to develop guidelines for field staff including those conditions where bottom area can be used to determine minimum area required.

--Does not favor use of 200 gpd as projected loading rate for conventional gray water sand filter designs.

--Thinks rules should state clearly that once an optional non-conventional sand filter is approved, the design can be

considered standardized.

--Feels non-conventional filter design considerations should be reviewed by DEQ only, due to DEQ's closer familiarity with sand filters, since review expertise in state appears to be very limited.

--Recommends plans and specifications for non-conventional systems be submitted to DEQ prior to permit application and applications for non-conventional systems not be accepted until a design is previewed and approved in concept by DEQ.

8. Jerry Marshall Deputy Administrator, Development Services Division, Clackamas County Environmental Management Department

--Concerned about liberalizing rules too much and the impact such liberalization would have on long-term operations.

--Opposes idea of liberalizing reduction of drainfield sizing too much.

--Suggests specialty codes divisions of labor be recognized (e.g., structural, electrical, mechanical plumbing and subsurface) and sand filter systems include a mixture of specialty crafts and their respective code enforcement disciplines. Feel by using special craftsmen and code inspectors the best sand filter product is apt to result.

MPR:1
XL0197.B

November 30, 1979

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, December 14, 1979, EQC Meeting

Proposed Adoption of Amendments to Rules Governing the Construction and Use of Waste Disposal Wells (OAR 340-44)

Backbround and Problem Statement

Currently, Oregon Administrative Rule (OAR) 340-44-045 prohibits the use of waste disposal wells for disposal of sewage (and other wastes) beginning January 1, 1980. Since July 1969 when these existing regulations were adopted, the Department of Environmental Quality, with the cooperation of municipal and county governments, has phased out many of the waste disposal wells in Central Oregon. Nevertheless, there will still be many in use after January 1, 1980, including those in Bend which will not be replaced by sewer until the summer of 1980. If these regulations are not changed, the Department could be compelled to force owners of waste disposal wells to immediately replace their disposal well or face legal enforcement action. Most of these people probably do not have any available alternative to the use of waste disposal wells other than abandoning the property.

Statutory authority for amending these rules is set forth in Oregon Revised Statutes (ORS) 468.020 which requires the Commission to "adopt such rules and standards as it considers necessary and proper in performing the functions vested by law in the Commission." ORS 468.705 grants the Commission controlling authority for the prevention of water pollution. Subsection (2) of ORS 468.715 directs the Department to "take such action as is necessary for the prevention of new pollution and the abatement of existing pollution."

A Statement of Need for Rulemaking is attached.

Alternatives and Evaluation

One alternative to resolving this problem would be to force property owners to either find an approvable alternative to disposing of wastes down disposal wells or abandon the property. This alternative is obviously impractical because it would be impossible to find an approvable alternative for all existing disposal wells by January 1, 1980. This would then leave the owners with only the undesirable option of abandoning their property.

A second alternative is to not amend the regulation, but ignore enforcing the January 1, 1980 date for eliminating waste disposal wells. This alternative is undesirable because the Department and Commission could be sued and forced to enforce our regulation. Also, ignoring the January 1, 1980 date would cultivate disrespect for the Oregon Administrative Rules.

The third alternative is to amend the rules to change the January 1, 1980 deadline. The rules should promote eventual elimination of waste disposal wells in a manner consistent with the orderly extension of sewers and normally occurring growth patterns. This would still assure that most waste disposal wells would eventually be phased out.

The Department initiated rule-amending with a public information hearing in September 1979. The purpose of the hearing was to gather public viewpoints on ways to amend the rules. Following this, proposed rules were drafted and reviewed by Department staff and legal counsel. A public hearing was held on November 20, 1979 in Bend to collect testimony on the proposed rules. A public notice of the hearing was sent to all newspapers and radio stations in Central Oregon, plus those people that the Department knew were interested in waste disposal wells. A summary of public testimony is attached.

The Department proposes to amend the rules in a manner which would restrict modification or expansion of use of existing disposal wells, but would allow continued use of a disposal well until sewer or another acceptable alternative became available. No new waste disposal wells would be allowed except inside Bend and then only until the new sewerage facility is completed. New waste disposal wells could also be allowed by a special letter permit issued by the Director. The letter permit could only be issued if the Director determines that new waste disposal wells are needed to assure orderly extension of a regional sewerage facility or to prevent isolation of specific areas where existing disposal wells or other less desirable means of long-term urban sewage treatment and disposal are being employed.

The proposed rules require that a waste disposal well be abandoned when a sewer is extended to within 75 feet of the property containing the disposal well. The rules would also allow waste disposal wells to be used for disposal of noncontact cooling water.

The primary impact of the proposed amended rules is that it relieves property owners from abandoning their existing waste disposal wells as of January 1, 1980, but will require connection to sewer when it becomes available.

Proposed rules are attached.

Summation

1. Current regulations (OAR 340-44-045) prohibit the use of waste disposal wells after January 1, 1980.

2. This date cannot possibly be achieved and there will be waste disposal wells operating after January 1, 1980.

3. The proposed amendments to OAR 340-44 will delete the January 1, 1980 date but will still promote eventual elimination of waste disposal wells except for those that dispose of noncontact cooling water.

4. The proposed amendments to OAR 340-44 would allow the Director to issue a letter permit for new interim waste disposal wells in specific cases where it would help assure the proper extension and utilization of a regional sewerage facility. It could also be considered where it would preclude isolation of areas with improper sewage disposal.

Director's Recommendation

Based upon the Summation, it is recommended that the Commission adopt the amendments to OAR 340-44 as proposed.

Bill

WILLIAM H. YOUNG

Attachments: Statement of Need for Rulemaking
Summary of Public Testimony
Proposed rules

VICTOR ATIYEH
GOVERNOR

Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207
522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

ATTACHMENT

Agenda Item H, December 14, 1979, EQC Meeting

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the Environmental Quality Commission's intended action to adopt a rule.

(1) Legal Authority.

Statutory authority for amending these rules is set forth in Oregon Revised Statutes (ORS) 468.020 which requires the Commission to "adopt such rules and standards as it considers necessary and proper in performing the functions vested by law in the Commission." ORS 468.705 grants the Commission controlling authority for the prevention of water pollution. Sub-section (2) of ORS 468.715 directs the Department to "take such action as is necessary for the prevention of new pollution and the abatement of existing pollution."

(2) Need for the rule.

Currently, Oregon Administrative Rule (OAR) 340-44-045 prohibits the use of waste disposal wells for disposal of sewage (and other wastes) beginning January 1, 1980. Since July 1969 when these existing regulations were adopted, the Department of Environmental Quality, with the cooperation of municipal and county governments, has phased out many of the waste disposal wells in Central Oregon. Nevertheless, there will still be many in use after January 1, 1980, including those in Bend which will not be replaced by sewer until the summer of 1980. If these regulations are not changed, the Department could be compelled to force owners of waste disposal wells to immediately replace their disposal well or face legal enforcement action. Most of these people probably do not have any available alternative to the use of waste disposal wells other than abandoning the property.

(3) Principal documents relied upon in this rulemaking.

a. Issue Paper - Disposal Wells in Central Oregon.

b. Liquid Waste Disposal in the Lava Terrane of Central Oregon

c. Existing Rules Governing the Construction and Use of Waste Disposal Wells.

Richard J. Nichols:dmc
382-6446
November 23, 1979

ATTACHMENT 2

VICTOR ATIYEH
GOVERNOR

Department of Environmental Quality
CENTRAL REGION
2150 N.E. STUDIO ROAD, BEND, OREGON 97701 PHONE (503) 382-6446

SUMMARY OF HEARING RECORD
for the Public Hearing Held November 20, 1979
in Bend, Oregon for the PUrpose of Gathering
Public Testimony on Proposed Amendments to Rules
Governing the Construction and Use of Waste Disposal Wells (OAR 340-44)

The Department believes that it provided more than adequate public notice for the public hearing. Nevertheless, no one appeared in person to present testimony concerning the proposed revisions to OAR 340-44.

Two letters of comment (attached) were submitted by Brooks Resources of Bend. These letters contain primarily two points. The first point requests the rules allow new interim waste disposal wells to be constructed in areas inside the City of Bend where, because of funding shortfalls, sewers are planned and designed, but not scheduled for construction.

When the City of Bend began constructing its new sewer system in July 1978, it faced a projected funding shortfall of over seven million dollars. To reduce this shortfall, the city decided to delay construction of the sewers that were not eligible for federal grants. At such time as the city is able to fund the ineligible sewers, they will be constructed. Current rules only allow the construction and use of new waste disposal wells in areas where the wells are scheduled to be replaced by sewer in accordance with an approved regional sewerage plan. When the Department learned that the ineligible sewers were not scheduled for completion with the rest of the Bend Regional Sewerage System, it ordered Deschutes County to not issue any more waste disposal wells in the areas to be served by the ineligible sewers.

According to the City of Bend, the properties inside the areas to be served by the ineligible sewers have been paying taxes to retire the debt service of the sewer bonds. The City of Bend believes that if these properties are not allowed interim waste disposal wells, the owners of the properties may sue the city to challenge the city's ability to tax for sewerage service when it is not being provided. Should the suit succeed, it could cause the entire sewerage facility funding program to fail. Such a failure would be disaster.

The Department believes that the addition of a few new waste disposal wells in these areas is certainly better than risking the outcome of the entire sewerage project, particularly when the end result of the project will be in the elimination of between 4000 and 500 existing waste disposal wells. Consequently, the proposed rules have been changed by adding a provision that would allow the Director to issue a letter permit for the construction and use of waste disposal wells. The letter permit could only be considered if it were needed to assure orderly extension of a regional sewerage system or to preserve the capability of future sewer extensions to areas using existing waste disposal wells or other less desirable methods of long-term urban sewage treatment and disposal.

The second point addressed in the letters requests that the rules should allow the construction and use of new interim waste disposal wells in areas other than inside the City of Bend. Such use of waste disposal wells would assist and, perhaps, better assure the orderly extension of the Bend sewer system and prevent isolation of areas with existing waste disposal wells or potentially failing drainfields.

The Department agrees with this viewpoint and believes that the option for considering new interim waste disposal wells in certain instances should be retained. It is believed that the provision allowing the Director to issue a letter permit will address this concern.

The Department has made some changes to the proposed rules since they were put on public notice. Most of these were minor changes made at the request of legal counsel and did not significantly alter the meaning or intent of the originally proposed rules.

One significant change to the proposed rules, however, was the addition of several sentences to 340-44-015(4). The addition defines sewer service to be available to a property when a sewer is extended to within 75 feet from the property boundary. It also allows the Director to waive sewer availability, if he determines that connection to sewer is impracticable or unreasonably burdensome.

Respectively submitted,

Richard J Nichols

Richard J. Nichols
Hearing Officer

November 23, 1979

Attachments

Brooks Resources Corporation

416 Northeast Greenwood
Bend, Oregon 97701
Phone: (503) 382-1662

November 6, 1979

Department of Environmental Quality
2150 N. E. Studio Road
Bend, Oregon 97701

Attn: Dick Nichols

Gentlemen:

This is offered in response to your request for comments regarding proposed changes in the Oregon Administrative Rules Governing Construction and Use of Waste Disposal Wells.

Brooks Resources Corporation is actively and responsibly involved in community development projects in the area which will be affected by the proposed Rule change. We share the Department's concern for protection of the groundwater resource and accordingly wish to make the following points:

1. The existing options to sewer connection are disposal wells and drainfields. In much of Central Oregon, soil depth restrictions cause need for large lots to accommodate drainfields.

2. While use of a large number of disposal wells creates a potential threat to groundwater, urban density development is possible when disposal wells are used where sewers are not yet available.

3. When sewage disposal restrictions do not influence lot size, urban development can occur based on sound planning principles.

4. Sewage systems exist in all affected municipalities except Bend. The Bend system is near completion and is designed to permit expansion.

In the Bend area, connection to sewers is a sound technical and environmental alternative to disposal wells. In areas where sewers are planned but not yet available, continued use of disposal wells allows for orderly urban growth patterns and formation of a favorable economic base to finance future sewers.

On the west side of Bend where planned sewers will have not been constructed at the time of plant start up, provision should be made to permit continued construction and use of disposal wells for the following reasons:

1) the City is commited to provide sewage collection facilities in the area; (2) plant start up means most disposal well use in Bend will be terminated, eliminating discharge of millions of gallons of untreated wastes into the groundwater; 3) sewage flows from new disposal wells in defined areas will not begin to offset the volume of wastes from those taken out of service and 4) urban density development can occur recognizing that use of the disposal wells will be discontinued in accordance with an established time schedule to construct the permanent facilities.

In other parts of Bend's "Phase II" area, interim use of disposal wells will promote urban densities, where desired, and promote an economic base of funding of Phase II sewers. Since the DEQ would control use of all interim disposal wells, development would occur within the capabilities and capacities of existing sewer facilities.

We urge you to consider permitting continued use of disposal wells on an interim basis in areas planned for sewer construction. We feel this is environmentally acceptable while at the same time allowing for planned orderly growth and economic stability in the community.

Cordially,

William L. Smith
President

WLS:lr

Hand delivered

Brooks Resources Corporation

416 Northeast Greenwood
Bend, Oregon 97701
Phone: (503) 382-1662

November 20, 1979

Mr. Richard J. Nichols
Department of Environmental
Quality
2150 N. E. Studio Road
Bend, Oregon 97701

Dear Dick:

I understand that you are currently reviewing your rule which prohibits drill holes after January 1, 1980 (OAR 340-44). With this letter, I would like to reiterate and amplify why drill holes are important to Bend.

The two points I would like to make with this letter are:

1) Drill holes in Bend are an essential element of the City of Bend's program to sewer itself. It just simply isn't possible to obtain orderly use of land and sewer construction without drill holes.

2) Many areas of Bend, currently on drill holes, do not have current funded plans to be sewered. Unbuilt-on lots in those areas may not accommodate drain fields. Denying building by virtue of a prohibition against drill holes may threaten the future funding of the City's sewer.

To illustrate these points, I'll outline two hypothetical situations:

Point #1. Interim use of drill holes is essential for orderly growth and a key element in the City's program. The City requires future hookups to pay for its sewer. If a developer, inside the sewer boundary, owns 20 acres 1,300 feet from a proposed interceptor, he currently has two choices. They are to develop with sewers with an interim treatement or use individual septic tanks. If the 20 acres doesn't have a suitable area for a "master drain field" and a drill hole is precluded by rule (not reason), then the developer of necessity will put in individual drain fields. The effects of that action are to lower density in the Urban Growth area, thus encouraging sprawl; deprive Bend of future hookups and, therefore, revenue; and make more difficult the connection to the sewer by neighboring tracts of land.

Point #2. Drill holes, both current and prospective, in unsewered but already developed areas of Bend are necessary. An owner of a lot in the West Hills of Bend that is not built on and lacks sufficient soil for a drain field is already paying for a sewerage system that won't reach him with current funding. If he's denied the right to build and if he challenges in court the City's ability to tax him for a service he can't have, the City may not be able to sell its bonds, or worse, the City's entire financing plan may be overthrown. That creates a vicious circle. In addition, that situation encourages more growth outside developed areas.

I would like to request that you consider these points in recommending the new rules. As a suggestion, it is reasonable to require some level of treatment for drill holes in new developments. It's economically possible because of economies of scale; i.e., treating several units at the same location.

Drill holes are vital to the City's program. Action already started (when complete) will put 90+% of the dwellings on sewer. To continue the existing situation for a reasonable period of time and permit new drill holes in some situations is an absolute necessity to the success of the work we've all done to sewer Bend.

Thank you.

Cordially,

William L. Smith
President

WLS:lr

cc: Art Johnson
Tom Throop

CITY of BEND P.O. BOX 431 • BEND, OREGON 97701 • (503) 382-4211

November 21, 1979

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
NOV 21 1979
BEND DISTRICT OFFICE

Mr. Richard J. Nichols
Department of Environmental Quality
2150 NE Studio Rd.
Bend, OR 97701

Dear Dick:

The City of Bend has reviewed the rules relating to drill holes and in general we have no objection. There is, however, a problem for the City in the Phase I sewer area that will give us some problems unless we can get a variance from the rules.

Specifically, the reduction in EPA funding for FY 80 means that part of our project cannot be funded until FY 81. As we plan to start up the plant in the summer of 1980 this could pose a problem. We also have some delayed sections of the system that were declared inelligible for EPA funding in the Phase I area. These systems will be built as funds become available, but this will occur after the scheduled start up of the treatment plant.

As you know, property owners in the City limits have been taxed the past two years for debt service of the sewer bonds. We risk the threat of some court action if we are not able to accommodate the people in these areas with an interim drillhole until the sewer can be extended. Lawsuites could raise havoc with our entire funding plan to retire the $9,000,000 in sewer bonds. It is serious and we need a variance to head off the pending problems.

If you have any questions, please contact me.

Sincerely,

Arthur R. Johnson
City Manager

ARJ:at

Division 44

Construction and Use of Waste Disposal Wells

Definitions

340-44-005 As used in these regulations unless the context requires otherwise:

(1) "Person" means the state, any individual, public or private corporation, political subdivision, governmental agency, municipality, industry, copartnership, association, firm, trust, estate or any other legal entity whatsoever.

(2) "Sewage" means the water-carried human or animal waste from residences, buildings, industrial establishments or other places, together with such ground water infiltration and surface water as may be present. The admixture with sewage, as above defined, of industrial wastes or wastes shall also be considered "sewage" within the meaning of these regulations.

(3) "Wastes" means sewage, industrial wastes, agricultural wastes, and all other liquid, gaseous, solid, radioactive or other substances which will or may cause pollution or tend to cause pollution of any waters of the state.

[(4) "Waste Disposal Well" means any natural or man-made hole, crevasse, fissure or opening in the ground which is used or is intended to be used for disposal of sewage, industrial, agricultural or other wastes: provided, however, as used in these regulations waste disposal wells do not include conventional seepage beds, tile fields, cesspools or landfills constructed and operated in accordance with State Board of Health rules and

regulations or waste treatment or disposal ponds or lagoons constructed or operated under a permit issued by the State Sanitary Authority.]

(4) "Waste Disposal Well" means any natural or man-made hole, crevasse, fissure or opening in the ground which is used or is intended to be used for disposal or sewage, industrial, agricultural or other wastes.

(a) "Waste Disposal Well," as used in these regulations, does not include conventional seepage beds, tile fields, cesspools or landfills constructed and operated in accordance with Commission rules or waste treatment or disposal ponds or lagoons constructed or operated under a permit issued by the Director.

(b) "Waste Disposal Well" does not include geothermal reinjection wells.

(c) "Waste Disposal Well" does not include disposal wells specifically approved by the Commission for disposal of adequately treated and disinfected effluents from large, efficiently operated, municipal or county sewage treatment plants, where continuous and effective surveillance and control of waste treatment and discharge can be assured so as to fully safeguard water quality and the public health and welfare. Such disposal wells shall only be considered for approval by the Commission if it determines that no other method of disposal other than disposal well is reasonably or practicably available.

[(5) "Approved Permit Issuing Agency" means a city, county, or other governmental entity which has been specifically designated by the State Sanitary Authority as the agency authorized to issue pursuant to these regulations permits for the construction, modification, maintenance, or use of waste disposal wells within a designated geographical area.]

(5) "Authorized Representatives" means the staff of the Department or of the local unit of government performing duties for and under agreement with the Department as authorized by the Director to act for the Department.

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

(7) "Construction" includes installation or extension.

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

(9) "Director" means the Director of the Department of Environmental Quality.

(10) "Public Health Hazard" means a condition whereby there are sufficient types and amounts of biological, chemical, or physical, including radiological, agents relating to water or sewage which are likely to cause human illness, disorders, or disability. These include, but are not limited to, pathogenic viruses and bacteria, parasites, toxic chemicals, and radioactive isotopes. A malfunctioning or surfacing subsurface sewage disposal system constitutes a public health hazard.

(11) "Public Waters" means lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon, and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

(12) "Owner" means any person who alone, or jointly, or severally with others:

(a) Has legal title to any lot, dwelling, or dwelling unit, or,

(b) Has care, charge, or control of any real property as agent, executor, executrix, administrator, administratix, trustee, lessee or guardian of the estate of the holder of legal title; or

(c) Is the contract purchaser of real property.

Each such person as described in (b) and (c) above, thus representing the holder of legal title, is bound to comply with the provisions of these minimum standards as if he were the owner.

(13) "Municipal sewerage system" means any part of a sewage collection, transmission, or treatment facility that is owned and operated by an incorporated city.

(14) "Acknowledged Comprehensive Land Use Plan" means any land use plan that has been acknowledged by the Land Conservation and Development Commission.

(15) "Noncontact cooling water" means water that has been used solely for cooling purposes in a manner such that the water contains no more contaminants (except heat), after its use, than when it was withdrawn from its natural source.

(16) "Property" means any structure, dwelling or parcel of land that contains or uses a waste disposal well for disposing of wastes.

(17) "Standard subsurface sewage disposal system" means a drainfield disposal system that complies with the requirements of Sections 340-71-020 and 340-71-030.

(18) "Municipal sewer service area" means an area which has been designated by an incorporated city for sewer service and for which preliminary sewer planning has been completed.

(19) "Municipality" means an incorporated city only.

(20) "WPCF Permit" means a permit as defined in section 340-45.

Policy

340-44-010 Whereas the discharge of untreated or inadequately treated sewage or wastes to waste disposal wells and particularly to waste disposal wells in the lava terrain of Central Oregon constitutes a threat of serious, detrimental and irreversible pollution of valuable ground water resources and a threat to public health, it is hereby declared to be the policy of the [State Sanitary Authority] Commission to restrict, regulate or prohibit the further construction and use of waste disposal wells in Oregon and to phase out completely the use of waste disposal wells as a means of disposing of untreated

or inadequately treated sewage or wastes as rapidly as possible in an orderly and planned manner.

Construction or use of Waste Disposal Wells

[Prohibited] Restricted

340-44-015 (1) After the effective date of these rules, no person shall construct or place in operation any waste disposal well for the disposal of sewage without first obtaining a permit for said construction or operation of the waste disposal well from [an approved permit issuing agency] the Director or his authorized representative.

[(2) After the effective date of these regulations, no person shall construct or place in operation any waste disposal well for the disposal of sewage from a system serving more than 25 families or 100 people or of wastes other than sewage without first obtaining a permit from the State Sanitary Authority.]

[(3) After January 1, 1975, no person shall maintain or use any waste disposal well for the disposal of sewage or wastes without a currently valid permit from an approved permit issuing agency or the State Sanitary Authority which specifically authorizes said maintenance or use.]

[It is the intent of this sub-section to phase out, by January 1, 1975, the use of waste disposal wells except for those which are scheduled to be replaced by sewers in accordance with an approved plan and time schedule, and those which are operated under specific permit from the State Sanitary Authority pursuant to Section 340-44-045 of those regulations.]

(2) After January 1, 1983, use of waste disposal wells for disposing of sewage is prohibited unless the disposal well is outside the boundaries of an incorporated city, sanitary district, or county service district and municipal sewer service is not available to the property; or unless connection to the sewerage system violates any acknowledged comprehensive land use plan or any of Oregon's State Wide Land Use Goals as determined by the Director.

(3) After January 1, 1981, use of a waste disposal well for disposing of wastes other than sewage is prohibited except for those disposal wells which dispose of only non-contact cooling water and which are operating under a valid WPCF Permit issued by the Director.

(4) Within 90 days following written notification by the Department that sewer service is available to a property, the owner of that property shall make connection to the sewer and shall abandon and plug the disposal well in accordance with Section 340-44-040. Sewer service shall be deemed available to a property when a sewer is extended to within seventy-five (75) feet from the property boundary. On a case-by-case basis, the Director may waive the requirement to connect to sewer if he determines that connection to the sewer is impracticable or unreasonably burdensome. Any waiver granted by the Director shall be temporary and may be revoked when or if the use of the waste disposal well is modified or expanded.

(5) Construction and use of new waste disposal wells is prohibited except those new waste disposal wells that meet the following conditions:

(a) The waste disposal well is constructed and operated in compliance a valid WPCF Permit issued by the Director and is used solely for disposal of non-contact cooling water; or

(b) The waste disposal well is constructed and operated inside the city of Bend and only serves a dwelling or other structure located inside the city of Bend. A permit to construct a waste disposal well inside the city of Bend shall not be issued unless it is an interim disposal system that will be abandoned within ninety (90) days after the new Bend sewage treatment plant is completed. No waste disposal wells shall be constructed inside the city of Bend after the new Bend sewage treatment plant is completed or after January 1, 1981, whichever comes first. New waste disposal wells inside the city of Bend shall be constructed within the following limitations:

(A) Waste disposal wells shall not be constructed closer than five hundred (500) feet from a natural stream or lake; and

(B) Waste disposal wells shall not be constructed greater than one hundred (100) feet deep.

(C) Waste disposal wells designed to dispose of waste quantities greater than twelve hundred (1200) gallons per day shall not be closer than one quarter (1/4) mile from a domestic water well. If the design waste quantity is twelve hundred (1200) gallons per day or less, the waste disposal well shall not be closer than one thousand (1000)feet from a domestic water well.

(c) The waste disposal well or wells are constructed under a letter permit issued by the Director. The Director may issue a permit only after he determines that the following requirements

have been met:

A. A written application shall be submitted to the Director, listing the number of waste disposal wells, the quantity of waste proposed for disposal, and the justification for allowing the disposal wells.

B. The Director shall only issue a letter permit if he determines that the proposed waste disposal well or wells are needed to assure orderly extension of a regional sewerage system, or to preserve the capability of future sewer extensions to areas using existing waste disposal wells or other less desirable methods of long-term, urban sewage treatment and disposal.

C. The Director shall not issue a letter permit unless the owner of a municipal sewerage facility provides adequate assurances that the waste disposal wells are interim and will ultimately be connected to the municipal sewerage facility.

D. If the waste disposal wells will serve more than one parcel of land, it shall be operated and maintained by the owner of the municipal sewerage facility.

E. The Director, in his evaluation of the application for waste disposal well letter permits shall take into account other potential means for sewage treatment and disposal.

F. If the Director determines to issue a letter permit, he may require pretreatment of the wastes prior to disposal by waste disposal well. The Director may also require a commitment by the owner of the municipal sewerage system to provide a plan for replacing the waste disposal well or wells with sewers by a specific date. The Director may set other conditions on the construction and use of the waste disposal well or wells as

necessary to assure that the disposal well or wells are interim and to assure protection if ground water.

(6) A permit to construct a waste disposal well shall not be issued if the Director or his authorized representative, determines that the waste disposal well has the potential to cause significant degradation of public waters or create a public health hazard.

(7) Without first obtaining a permit issued by the Director or his authorized representative, no person shall modify any structure or change or expand any use of a structure or property that utilizes a waste disposal well. A permit shall be a written document and shall be issued if:

(a) The property cannot qualify for a standard subsurface sewage disposal system including the reserve area requirement; and

(b) The property is inside a designated, municipal sewer service area; and,

(c) The owner of the property and the municipality having jurisdiction over the municipal sewer service area shall enter into a written agreement. The agreement shall include the owner's irrevocable consent to connect to the municipal sewerage service when it becomes available and to not remonstrate against formation of and inclusion into a local improvement district if such a district is deemed necessary by the municipality to finance sewer construction to the property; and

(d) The property is a single family dwelling that is not closer than one hundred (100) feet to a municipal sewerage system. (The proposed changes or expansion of the use of the

waste disposal serving the single family dwelling shall not be for the purpose of serving a commercial establishment or multiple-unit dwelling); or

(e) The property is not a single family dwelling, is not closer than 300 feet from a municipal sewerage system, and the proposed change or expansion of the use of the waste disposal well would not create an increased waste flow; or

(f) The property is not a single family dwelling; existing sewer is not deemed available based upon the criteria established in Oregon Administrative Rules 340-71-015(5) and based upon the total average daily flow estimated from the property after the proposed modification or expansion of the use of the waste disposal well and a municipality has committed in writing to provide sewers to the property within two (2) years.

Repairs of Existing Waste Disposal Wells

340-44-017 (1) Without first obtaining a Waste Disposal Well Repair Permit from the Director or his representative, no person shall repair or attempt to repair a plugged or otherwise failing waste disposal well.

(2) The Director or his authorized representative shall not issue a Waste Disposal Well Repair Permit and shall require connection to a municipal sewerage system if, for a single-family dwelling, the property is within one hundred (100) feet from the municipal sewerage system or if, for other than a single-family dwelling, the property is within three hundred (300) feet from the municipal sewerage system.

(3) The Director or his authorized representative shall not issue a Waste Disposal Well Repair Permit if the property can successfully accommodate a drainfield. If the Director or his authorized representative determines that a drainfield can be installed and that it can be expected to function satisfactorily for an extended period of time, the property owner shall install a drainfield and abandon the waste disposal well. The Director or his authorized representative may waive the requirement to install a drainfield if a municipality provides written commitment to provide sewers to the property within two (2) years and if the failing waste disposal well can be repaired or operated without causing a public health hazard.

(4) A Disposal Well Repair Permit shall be a written document and shall specify those methods by which the waste disposal well may be repaired. Possible methods for repair shall include, but not be limited to, introduction of caustic or acid, use of explosives, or deepening the waste disposal well. Deepening the waste disposal well shall be limited to a maximum depth of one hundred (100) feet and shall only be permitted if:

(a) The property served by the failing waste disposal well shall be inside a recognized urban growth boundary; and

(b) There is a written agreement between the owner of the property and the municipality having jurisdiction over the urban growth boundary. The written agreement shall include the property owner's irrevocable consent to connect to a sewer when it becomes available and to abandon the waste disposal well. The agreement shall also include the owner's irrevocable consent to participate in the formation and be included in a local

improvement district if the municipality determines that such a district is necessary to finance extension of sewer to the property.

Schedules for Eliminating Waste Disposal Wells Inside Incorporated Cities, Sanitary Districts, and County Service Districts

340-44-019 Prior to January 1, 1981, incorporated cities, sanitary districts, and county service districts that contain waste disposal wells inside their boundaries shall submit a plan to the Director that includes (1) an inventory and map of existing waste disposal wells inside its boundary; and (2) a time schedule for eliminating all waste disposal wells inside its boundaries by January 1, 1983.

Issuance of Permits Without [Sanitary Authority] Director Approval Prohibited

340-44-020 After the effective date of these [regulations] rules, no person shall issue permits for the construction, modification, maintenance or use of waste disposal wells unless [they are] that person is at the time of issuance designated by the [State Sanitary Authority] Director as the [approved permit issuing agency] authorized representative for the area for which the permit is sought.]

[Waste Disposal Well Permit Areas]

[340-44-025 Permits for construction, modification, maintenance or use of waste disposal wells may be issued only

in those designated geographical areas for which a city, county or district, legally authorized to provide sewerage services for the area, complies with the following conditions:]

[(1) Maintains on file with the Sanitary Authority all currently approved sewerage program including a plan and time schedule for providing collection, treatment and disposal of wastes.]

[(a) The time schedule must be designed to provide an approved sewerage system within the shortest time possible and unless it can be demonstrated to be nonfeasible shall at least comply with the following:]

[(A) Qualified consulting engineer to be hired by not later than July 1, 1969.]

[(B) Preliminary engineering report including a detailed financing plan and construction schedule to be submitted to the Sanitary Authority by not later than January 1, 1971.]

[(C) Start construction of the sewerage system by not later than August 1, 1971, after obtaining approval from the Sanitary Authority of detailed plans and specifications.]

[(D) Complete construction of the approved sewerage system by not later than January 1, 1980.]

[(2) Submits to the State Sanitary Authority, during the month of January each year, annual reports which demonstrate that reasonable progress is being made in implementing the approved sewerage program.]

Abandonment and Plugging of Waste Disposal Wells

340-44-040 (1) A waste disposal well upon discontinuance or use or abandonment shall immediately be rendered completely inoperable by plugging and sealing the hole to prevent the well from being a channel allowing the vertical movement of water and a possible source of contamination of the ground water supply.

(2) All portions of the well which are surrounded by "solid wall" formation shall be plugged and filled with cement grout or concrete.

(3) The top portion of the well must be effectively sealed with cement grout or concrete to a depth of at least 18 feet below the surface of the ground, or wherever this method of sealing is not practical, effective sealing must be accomplished in a manner approved in writing by the [State Sanitary Authority or the authorized permit issuing agency if functioning.] Director or his authorized representative.

[Construction or use of Waste Disposal Wells Prohibited after January 1, 1980]

[**340-44-045** After January 1. 1980, it shall be unlawfull for any person to construct, maintain or use waste disposal wells for disposal of sewage or wastes unless said wastes have been previously treated by the Sanitary Authority and further such treatment waste shall be discharged to waste disposal wells only if specifically approved and authorized by the Sanitary Authority. It is intended that this section will permit

consideration for approval by the Sanitary Authority of waste disposal to deep injection wells, constructed and operated in accordance with a carefully engineered program, and for disposal to waste disposal wells of and from large, efficiently-operated, municipal or county sewage treatment plants where continous and effective surveillance and control of waste treatment and discharge can be assured so as to fully safeguard water quality and the public health and welfare.]

Statutory Authority

Hist. Filed 5-15-69 as SA 41

Victor Atiyeh
Governor

Environmental Quality Commission

POST OFFICE BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

MEMORANDUM

TO: Environmental Quality Commission DATE: December 13, 1979

FROM: Air Quality Division

SUBJECT: Clean Air Act and Variances

The Commission should be advised that approval of a variance may not relieve the source from the Federal Clean Air Act as amended in 1977, Section 120 relating to Non-Compliance.

The act requires that non-compliance penalties be assessed agains't any major stationary source that is not in compliance with any emission limitation, emission standard, or compliance schedule as contained in an applicable approved state implementation plan.

It appears it was the intent of Congress to require EPA to assess and administratively collect a penalty designed to capture the total economic savings realized by a firm as a result of not complying with the law after mid 1979.

The Department does not have sufficient information to know what EPA will do. It is known that EPA is proceeding somewhat slowly in this area.

The non-compliance penalty provision is intended to deal with recalcitrant sources. None of the variance applicants under consideration today can be termed recalcitrant. Three are being held up due to delivery schedules of ordered equipment. The other is having economic problems.

DEQ does not consider these companies to be major sources because their particulate emission rates are below 100 tons per year. EPA may concur.

Presently, the current veneer dryer rule is not part of the approved SIP since EPA has not acted on DEQ's submittal.

Oregon Revised Statutes provide for and requires that the EQC act on variance requests. Such action may include approval under conditions setforth in the Statutes. EPA has not commented on the State Variance Law.

To date,the Department is aware of only two Oregon facilities involved with EPA in determining appropriate non-compliance penalties. No Oregon sources have paid this type of penalty so far.

FASkirvin
nlb

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. I (1), December 14, 1979, EQC Meeting

Request for a Variance from OAR 340-30-045(b), Compliance Schedules for the Veneer Dryers at the Kogap Manufacturing Company in Medford, Oregon

Background and Problem Statement

Kogap Manufacturing Company operates a plywood plant in Medford, Oregon. This plant includes four veneer dryers. Specific air pollution control rules for the Medford-Ashland Air Quality Maintenance Area were adopted in March, 1978. Kogap has requested a variance from OAR 340-30-045(b), Compliance Schedules, for the operation of these veneer dryers because of a delay in delivery of control equipment.

Plans for air pollution control equipment for the veneer dryers were submitted in a timely manner and approved, and Kogap issued purchase orders for the controls in August, 1979. The control equipment supplier has indicated that all of the necessary components cannot be delivered and installed prior to the January 1, 1980 compliance date in the rules.

The Commission is authorized by ORS 468.345 to grant variances from the Department's rules if it finds that strict compliance is inappropriate because "conditions exist that are beyond the control of the persons granted such variance", or "strict compliance would result in substantial curtailment or closing down of the business, plant or operation."

Alternatives and Evaluation

The Kogap plywood plant is located in the Medford-Ashland Air Quality Maintenance Area. The company has requested a variance to operate the four veneer dryers at the current uncontrolled emission rate through June 1, 1980, six months beyond the January 1, 1980 regulatory deadline for

compliance. This higher emission rate would for the most part occur during the best ventilation period for dissipation of emissions in the Medford airshed.

Specific air pollution control rules for the Medford-Ashland Air Quality Maintenance Area were adopted by the Commission on March 31, 1978. These were developed at about the same time Kogap was completing plans for substituting wood waste for natural gas as the heat source for its veneer dryers. Emissions tests following construction of the new system were required to determine the degree of control required because no similar facilities had installed control equipment. Kogap completed the new energy system in a compressed construction schedule of nine months. Final emissions tests and analysis were completed after a short break-in period of two months. Negotiations commenced immediately to determine the size, type and manufacturer of control equipment. Purchase orders for Ceilcote ionic wet-scrubbers were issued on August 7, 1979. Ceilcote Company indicates that the equipment will be delivered by March, 1980.

Kogap had originally submitted a construction schedule to meet the January 1, 1980, compliance date. Equipment delays (both energy system and pollution controls) have extended the original construction schedule to June 1, 1980. Kogap has consistently compressed the elements of the construction schedule under its control.

ORS 468.345 allows the Commission to grant variances if conditions exist beyond the control of the company or if compliance would result in substantial curtailment or closing down of the plant. Kogap maintains that the construction delays have been beyond the control of the company and that strict compliance with the veneer dryer rule would result in a substantial production curtailment.

In the absence of a variance, Kogap would be required to meet the opacity limits for veneer dryer emissions effective January 1, 1980.

Veneer dryer emissions from processing white fir are typically lower than from processing Douglas fir or pine. Kogap would probably meet the opacity limits by drying only white fir in the veneer dryers. This would require a limitation on the species of wood dried in the veneer dryers.

This strategy would limit the plywood production to only white fir sheathing until the new pollution controls are installed. White fir sheathing normally makes up 55 percent of plant production. Several years ago Kogap processed white fir exclusively. A limited white fir supply and market conditions in recent years have forced Kogap to process other wood species in addition to white fir. Strict compliance with the January 1,

1980, compliance date would result in substantial curtailment (up to 45 percent of plant production during the first five months of 1980).

Recent source test information from this plant indicates that Kogap can meet the plant site emission limit included in its permit by processing only white fir. At full production on white fir, the estimated veneer dryer emissions would be 30 lbs/hour, 90 tons/year. The permit limit for veneer dryer emissions (effective January 1, 1980) is 100 tons/year. However, Kogap indicates that an adequate supply of white fir is not available to maintain a full production schedule on white fir alone.

Kogap has requested a variance from the January 1, 1980 compliance date for veneer dryer controls. A variance would allow Kogap to maintain normal production during the period that additional control equipment is delivered and installed.

Visible emissions from these veneer dryers normally exceed the opacity limits. Opacity readings taken during representative conditions in May, 1979, averaged 14 percent. The veneer dryer rule limits the average operating opacity to 10 percent.

During normal production, the particulate emissions from the veneer dryers average about 56 lbs/hr or 168 tons/yr. If uncontrolled emissions were allowed for the first five months of 1980, the veneer dryer emissions might be as high as 128 tons total during 1980. The permit limit is 100 tons per year of veneer dryer emissions.

The Department proposes a variance from OAR 340-30-045(b) with the following conditions:

1. Onsite construction of the control equipment shall begin by not later than March 1, 1980.

2. The veneer dryer emission control equipment shall be installed and operational and compliance demonstrated by no later than June 1, 1980.

3. From January 1 to June 1, 1980, Kogap shall limit the amount of Douglas fir and pine dried in the veneer dryers as much as practicable.

4. If the Department determines that the veneer dryers emissions cause significant adverse impact on the community or airshed, this variance may be revoked.

5. The portion of the plant site emission limit allocated to the veneer dryers will not be applicable until June 1, 1980. It will be prorated for the remainder of the calendar year.

6. This variance expires June 1, 1980.

Summation

1. Kogap Manufacturing company has requested a variance from OAR 340-30-045(b), Compliance Schedules, until June 1, 1980, for the operation of its veneer dryers in Medford, Oregon.

2. The rule requires that veneer dryer controls be completed by January 1, 1980. The installation of the Kogap controls will not be complete until shortly before June 1, 1980.

3. Visible emissions from the veneer dryers during normal conditions have averaged 14 percent opacity. The limit (effective January 1, 1980) is 10 percent average opacity for plywood plants in the Medford area. The veneer dryer emissions during 1980 could be as high as 128 tons if the variance is granted compared to the 100 tons per year allowed by the permit.

4. Kogap maintains and the Department concurs that the construction delays have been beyond the control of the company and that strict compliance with the veneer dryer rule would result in a substantial production curtailment.

5. The Commission has the authority under ORS 468.345 to grant a variance from a rule if conditions exist beyond the control of a company or if strict compliance would cause a substantial curtailment or closing down of a plant.

Director's Recommendation

Based upon the findings in the Summation, it is recommended that the Commission grant a variance from OAR 340-30-045(b), Compliance Schedules, and the portion of the permit plant site emission limit applicable to the veneer dryers, to Kogap Manufacturing Company for the operation of its veneer dryers in Medford, Oregon, subject to the following conditions:

1. On site construction of the control equipment shall begin by not later than March 1, 1980.

2. The veneer dryer emission control equipment shall be installed and in operation and compliance demonstrated by June 1, 1980.

3. From January 1 to June 1, 1980, Kogap shall limit the amount of Douglas fir and pine dried in the veneer dryers as much as practicable.

4. If the Department determines that the veneer dryers emissions cause significant adverse impact on the community or airshed, this variance may be revoked.

5. The portion of the plant site emission limit allocated to the veneer dryers will not be applicable until June 1, 1980. It will be prorated for the remainder of the calendar year.

6. This variance will expire June 1, 1980.

Bill

William H. Young

Attachment: 1. Variance Request from Kogap

F. A. Skirvin:lp
229-6414
November 29, 1979

AL0195

Kogap Manufacturing Company

Our goal: Complete forest crop utilization

P.O. BOX 1608 • MEDFORD, OREGON 97501 • (503) 776-6500

October 24, 1979

Department of Environmental Quality
P. O. Box 1760
Portland, Oregon 97207

Attn: Mr. William Young, Director

Re: Permit #15-0015
Request for Temporary Variance regarding Compliance Demonstration Schedule

Dear Mr. Young:

We find that due to conditions beyond our control we will not be able to complete our scheduled veneer dryer emission control installation by the January 1, 1980 date indicated in the permit. We are advised by our equipment supplier, Ceilcote Company, that the majority of the scrubber equipment will not be delivered to us until January and February of 1980. We enclose a copy of letter and shipping schedule from Ceilcote indicating the fabricating and shipping schedules involved.

In order for you to have some background on the progress of this rather involved project we furnish the following chronological summary of our actions:

Kogap Manufacturing Company is a medium-sized plywood manufacturing plant employing 285 persons on a year-around basis. The plant includes the operation of two steam boilers and four veneer dryers. Prior to the current project energy was supplied for these boilers and dryers from natural gas, propane, and diesel fuel. Early in 1978 we completed our plans for substituting wood waste in place of fossil fuels for this energy and proceeded as follows:

2-1-78	Requested approval from DEQ to construct an energy system burning wood waste. Complete plans and specifications were submitted for approval.
4-21-78	Notice received from DEQ denying our request. (78 day time lapse)
5-23-78	We submitted emission tests by Wellman and Associates to DEQ to determine the current level of emissions from

	our plant. Said tests indicated that the emissions inventory assigned to our sources by DEQ was lower than actual.
5-31-78	Conference at DEQ offices in Portland was held to further evaluate the Kogap project in view of Wellman emission test information and the engineering data furnished by EPI in connection with the fluid bed furnace and related equipment.
6-9-78	Received DEQ approval for construction of the energy system. Said approval obtained 129 days after our first request for construction.
6-14-78	Purchase orders issued for the Energy System equipment.
3-18-79	Completed construction of the energy system (9 mos.) Included in this phase of construction was $750,000.00 worth of pollution control equipment.
5-24-79	Final emission tests and analysis by Wellman and Associates regarding particle volume, size, velocity, etc. These tests were conducted after a period of breaking-in, debugging and operational training and were significant factors in providing necessary data to determine proper scrubber equipment and to obtain quotations for same.
5-25-79	Negotiation commenced to determine choice of scrubbers as to size, type, and manufacturer.
7-31-79	Request made of DEQ for approval and permission to install Ceilcote Ionized Wet Scrubber. Said equipment in our opinion is superior to other "just get by" equipment available. It is specifically designed and engineered for our energy system and must be manufactured on a custom basis as it is not a regular "package" unit. Because of this, some delay in ultimate delivery time is involved.
8-21-79	DEQ advises our request for installation is approved. We had, in fact, placed the order with Ceilcote 14 days prior to this date.
8-29-79	Final specifications, engineering and design data furnished by Ceilcote.
10-8-79	Received final layout drawings from Ceilcote and we are awaiting foundation drawings in order to commence initial construction work.

As indicated in the enclosed letter from Ceilcote Company, they will make final delivery of equipment by March 1980. It is estimated that it will require two months to install this equipment on foundations which will be prepared in the interim.

We expect to have the scrubbing equipment in operation on or before June 1, 1980 and are thus asking for an extension of time until June 1, 1980.

We will appreciate your favorable response to our request for extension of time to complete the project. It is our opinion that the initial delays in securing approval plus the careful evaluation of the emission load and the final selection of superior equipment will in the long run prove beneficial in the control of emissions from our plant.

If further information is required please contact Mr. Charles Heffner at 776-6522.

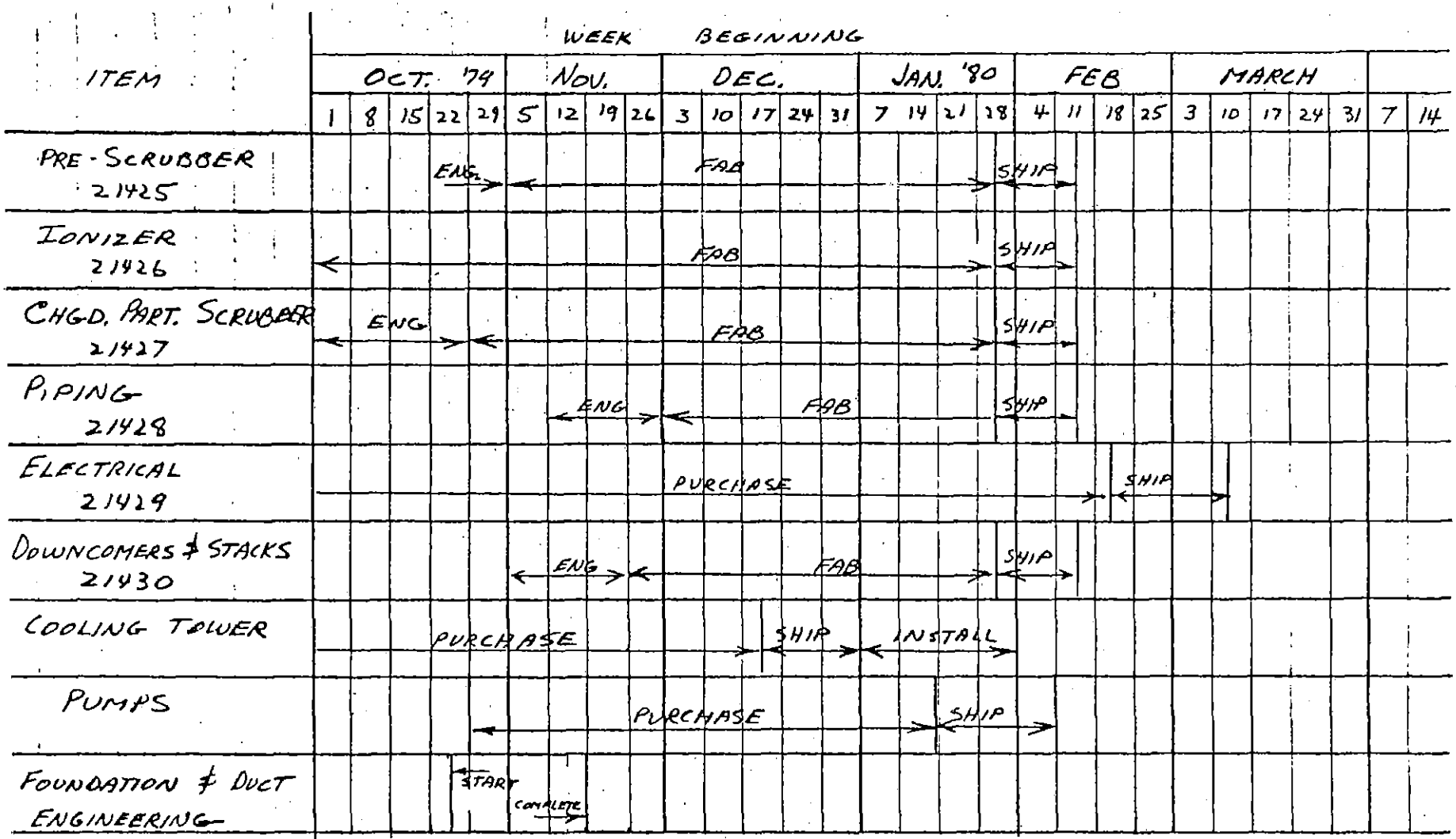
Sincerely,

KOGAP MANUFACTURING COMPANY

S. V. McQueen, President

SVM/jcc

Enclosure


WEEK BEGINNING
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START
COMPLETE

Ceilcote

October 16, 1979

Kogap Manufacturing Company
P.O. Box 1608
Medford, Oregon 97501

Attention: Mr. C. X. Heffner

Subject: Ceilcote IWS™ System Delivery Schedule

Gentlemen:

The attached schedule represents our best current estimate of when components for your IWS system will be available for shipment.

Fabrication periods shown reflect the lead time we find necessary to obtain custom fabricated internal metallic parts. Delivery times stated for electrical equipment, high voltage transformer/rectifier and controls, are based on current deliveries being experienced for similar equipment ordered earlier from the same source.

We are making every effort to hold the schedule outlined and make improvements wherever possible. We will keep you informed of our progress.

Very truly yours,

Vern Peterka

V. J. Peterka
Project Engineer

VJP:lt

cc: Mr. Jim Miller (Arthur Forsyth Co.)
Mr. Don Scheiman
Mr. V. Frega
Mr. W. Klugman
Mr. C. Bash
Mr. K. Zelasko

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. I(2), December 14, 1979, EQC Meeting

Request for a Variance from OAR 340-30-045(b) for Southwest Forest Industries for Operation of the Veneer Dryers at Their Plant Nos. 5 and 6 in White City, Oregon

Background and Problem Statement

Southwest Forest Industries has requested a variance from the final compliance deadline for the veneer dryers at their plant Nos. 5 and 6, which are located in White City. OAR 340-30-045(b) requires compliance of all veneer dryers in the Medford/Ashland Air Quality Maintenance Area by no later than January 1, 1980. Southwest Forest Industries has requested an extension of that date to July 1, 1980.

Southwest Forest Industries has already issued purchase orders for the necessary control equipment. Construction of the control equipment by the manufacturer is already underway. The company initiated their control program by conducting a series of pilot tests in October, 1978.

The Commission is authorized by ORS 468.345 to grant variances from these rules if it finds that strict compliance with the rule is inappropriate because of conditions beyond the control of the company.

Alternatives and Evaluation

Southwest Forest Industries operates three gas fired dryers at plant No. 5 and two wood fired dryers and one gas fired dryer at plant No. 6. All of these dryers have been found consistently in violation of the opacity limits for veneer dryers. The company embarked upon its control program in October, 1978. The control strategy proposed by the company consists of installation of an ionizing wet scrubber (IWS) which is manufactured by Ceilcote Incorporated. This type of control equipment had not been

applied to veneer dryers before it was pilot tested by Southwest Forest Industries. This has resulted in more than the usual number of problems in determining design specifications and performance guarantees. These problems have delayed final agreement between Southwest Forest Industries and Ceilcote for purchase of the necessary equipment. However, during contract negotiations Ceilcote has proceeded with construction of the equipment. Ceilcote has estimated that the control equipment can be shipped to Southwest Forest Industries by January, 1980.

The veneer dryers at these plants are limited to a maximum opacity of 20 percent and an average opacity of 10 percent. In addition, plant site emission limits have been determined for these facilities. Plant No. 6 is limited to 21 tons per year from the veneer dryers. Plant No. 5 is limited to 11 tons per year. These limits assume control equipment installation has been completed. Without controls these dryers would be expected to emit approximately twice the particulate emission as with controls. The variance proposed by the Department would allow operation at the current emission levels for an additional six months beyond the compliance deadline. This variance would result in an addition 32 tons per year of particulates during that period, assuming continued operation of both facilities. The impact of these additional emissions would occur during the period of the best ventilation in the Medford airshed. This would have the effect of minimizing the impact of these additional emissions. If compliance is required by the January 1, 1980, deadline, the only recourse of the company would be to cease operation of both facilities.

Based upon extensive testing, Southwest Forest Industries developed special glues with low salt content. This has resulted in significant reductions in particulate emissions. These glues are in use in Plant Nos. 5 and 6 and should continue to be used until control equipment is installed even though these glues are more expensive than ordinary glues.

Because the company has made a good faith effort in adapting new technology to the control of these veneer dryers, the Department proposes a variance to allow continued operation of plant Nos. 5 and 6. This variance should be subject to the following conditions:

1. On site construction of the control equipment shall begin by no later than February 1, 1980.

2. Construction of the control equipment shall be completed by no later than May 1, 1980.

3. The compliance of all veneer dryers a plant Nos. 5 and 6 shall be demonstrated by no later than July 1, 1980.

4. Southwest Forest Industries shall continue to utilize low salt content glues and any other equipment or procedures which will minimize emission during the period of this variance.

5. The portions of the plant site emission limits allocated to the veneer dryers will not be applicable until July 1, 1980. They will be prorated for the remainder of the calendar year.

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

7. The variance expires July 1, 1980.

Summation

1. Southwest Forest Industries requested a variance from OAR 340-30-045(b) for operation of the uncontrolled veneer dryers at plant No. 5 and No. 6 for six months beyond the January 1, 1980, compliance deadline.

2. Southwest Forest Industries has issued purchase orders and fabrication of control equipment has already begun.

3. The company has made a good faith effort in attempting to comply with the Department's emission limits and compliance deadlines. However, due to circumstances beyond their control they are unable to meet these emission limits by the regulatory deadlines.

4. The Department has proposed a variance which would allow operation of the uncontrolled veneer dryers at plant No.s. 5 and 6 until July 1, 1980.

5. The Commission is authorized by ORS 468.345 to grant a variance if it finds that strict compliance with the rules is inapproprate because conditions exist that are beyond control of the company.

Directors Recommendation

Based upon the findings in the Summation, it is recommended that a variance from OAR 340-30-045(b) and the plant site emission limit contained in the permit be granted to Southwest Forest Industries for operation of the veneer dryers at their plant Nos. 5 and 6. This variance will be subject to the following conditions:

1. On-site construction of the control equipment shall begin by no later than February 1, 1980.

2. Construction of the control equipment shall be completed by no later than May 1, 1980.

3. The compliance of all veneer dryers at plant Nos. 5 and 6 shall be demonstrated by no later than July 1, 1980.

4. Southwest Forest Industries shall continue to utilize the low salt content glues and any other equipment or procedures which will minimize emission during the period of this variance.

5. The portions of the plant site emission limits allocated to the veneer dryers will not be applicable until July 1, 1980. They will be prorated for the remainder of the calendar year.

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

7. This variance expires July 1, 1980.

Bill
William H. Young

F. A. Skirvin:n
229-6414
November 28, 1979
AN8634
Attachments
1. Variance request by Southwest Forest Industries

Southwest Forest Industries
PACIFIC NORTHWEST DIVISION

P. O. Box 820
Medford, Oregon 97501
Telephone (503) 776-5750

November 16, 1979

Air Quality Division
Programs Operations
Oregon Department of Environmental Quality
P.O. Box 1760
Portland, Oregon 97207

Attention: Mr. Ed Woods

RE: AQ #15-0006
#15-0012

Gentlemen:

This letter constitutes Southwest Forest Industries' request for six month variances, to July 1, 1980, from the January 1, 1980 deadline for compliance by Southwest with OAR 340-30-045 (b) in connection with the veneer dryers at its Plants #5 and #6 in White City. This request is based on the existence of special conditions and circumstances of the type contemplated in ORS 468.345 (1) (a), (b) and (d).

The most significant factor giving rise to the need for variances has been the adaptation of "cross-over technology" for the purpose of controlling veneer dryer emissions at the White City plants, as well as at Southwest's plants in Grants Pass, Springfield and Albany. Seven projects utilizing that technology (and representing approximately $3.3 million of capital investment) have been proposed to the DEQ for implementation at our Oregon plants. When originally proposed in early 1978, these seven environmental projects were expected to cost $2.8 million in the aggregate. Four of these projects (two in White City and one each in Albany and Springfield) have received appropriate agency approval. Southwest expects that the compliance schedules applicable to the Springfield and Albany plants will be met. Plans for the remaining three IWS projects (which contemplate adherence to applicable compliance deadlines) are currently being finalized for submission to the DEQ.

This new technology chosen as a control strategy by Southwest is known as ionic wet scrubbing ("IWS"). The only supplier of IWS scrubbing units is The Ceilcote Company of Berea, Ohio. We understand that in addition to the two units planned for our White City plants, two IWS scrubbing units are to be installed by Kogap Corporation in Medford, and another unit by Boise Cascade at its White City plant. The five units planned for the White City-Medford area will represent the first operational application of IWS technology to the control of veneer dryer emissions. We are unaware of any other emission control system which has been demonstrated in pilot testing as being capable of providing for the opacity reduction and attendant efficiencies necessary to control emissions from direct wood-fired veneer dryers, of which Southwest has ten.

Southwest also has a total of six gas-fired dryers at plants in White City, Albany, and Springfield, for which utilization of IWS controls is also planned. We project that application of IWS technology to gas-fired dryers will enable Southwest to implement more uniform dryer maintenance procedures and preserve our option (through increased control efficiencies) to subsequently convert some or all of these to direct wood-firing.

The magnitude of the IWS environmental control undertaking and the allocation of related risks have been of great concern to Southwest and Ceilcote. Accordingly, negotiations between Ceilcote and Southwest in connection with the furnishing of IWS units were difficult and drawn-out. As a result, Ceilcote's work on the units for Plants #5 and #6 did not get underway when originally scheduled. Additional delays in implementing the IWS projects for Plants #5 and #6 have occurred as a result of technical uncertainties concerning, among other things, (a) re-circulation of system waste water, (b) treatment of sump waste water, (c) lack of correlation between applicable regulatory standards for mass emissions and opacity, and (d) the parties settling on system design capacity in terms of scrubber inlet and dryer exhaust gas volumes and temperatures. It should be emphasized that neither Ceilcote nor Southwest has had any operational experience with this new application of the IWS technology; nor (to our knowledge) has any other member of their respective industries. We also understand that installation of the IWS unit for Boise Cascade's White City plant, which was to have been the first such (pilot) installation, is approximately three to four months behind schedule. As a result, Ceilcote and Southwest do not have

the benefit of evaluating the performance of an operational IWS unit used in the veneer dryer context.

Fabrication of the two units for our White City plants, which we understand is now approximately 75% complete, has run into materials cost, and availability problems requiring evaluation of the acceptability of alternate parts. For example, the 316 stainless steel specification originally proposed for certain key components of the IWS system was changed at Ceilcote's request to 304 stainless. We have been assured by Ceilcote that such change would not detract from IWS System performance.

We have been advised by Ceilcote that it will be in a position to ship the IWS units for delivery at Plants #5 and #6 by year end. We project that a minimum of three months will be required for unit installation, with indeterminable additional time being required for debugging and testing for mass emission limit compliance. In this connection, Plants #5 and #6 were shut down for economic reasons in October and November, 1979, respectively. Pending resumption of operations, debugging and mass emissions testing of IWS units cannot proceed even if installation has then been completed.

In October, 1978 Ceilcote and Southwest engaged in a joint testing effort at Southwest's Albany plant with a view toward evaluating the capability of the IWS System to successfully control veneer dryer stack emissions and keep them within applicable opacity limitations. The results rendered sufficient encouragement to Southwest that it elected, when it became evident that there might be delays in complying with the current schedule for Plant #5, not to switch its emission control strategy for the three gas-fired dryers at that plant from IWS to conventional wet scrubbing. Moreover, since such a switch in technology would not have enabled Plant #6 (where two of the dryers are direct wood-fired) to meet applicable opacity standards, Southwest determined that its continued adherence to its chosen emission control methodology would result in maximum environmental benefit for Plants #5 and #6 collectively.

Southwest Forest has moved forward, despite severe inflationary pressures during the past year, to meet applicable compliance deadlines for its White City operations. The installation of equipment and renovation of the solid waste system at Plant #5 is nearing completion and will allow the wigwam burner there to be phased out on schedule. This particular project, which cost in excess of the $400,000 amount budgeted therefor, represents a DEQ-calculated 25 to 30 tons per year reduction in emissions. We feel that the dryers at Plant #6, when running, are operating near the mass emission limit without

scrubbing. This is due to a program developed and implemented by Southwest in 1978 involving process changes designed to lower the ash, salt and glue content of the fuel used in the direct wood-fired system. We have consistently held to that program even though it represents additional production costs. To our knowledge, Southwest is the only company utilizing a direct wood-fired drying system that continues, while subject to a compliance schedule requiring installation of control equipment, to bear such extra costs in order to keep emissions at a minimum.

We feel strongly that the delays experienced to date in Southwest's arranging for the acquisition and installation of IWS Systems at Plants #5 and #6 were, as a practical matter, beyond its control. This is especially so because Southwest's efforts involve participation in advancing the state of the art. In view of the steady progress being made, strict compliance with OAR 340-30-045 (b) by Plants #5 and #6 within the current deadline would be burdensome and impractical.

Based on the foregoing, Southwest Forest Industries respectfully requests that the Commission grant the desired variances for its Plants #5 and #6.

If you have any questions regarding this matter or desire any additional information, would you please contact Mr. Gary Grimes, the Pacific Northwest Division's Director, Energy and Environmental Affairs, at 776-5778.

Yours very truly,

D. A. Graves

Donald A. Graves
Vice President

DAG/mc

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. I(3), December 14, 1979, EQC Meeting

REQUEST FOR A VARIANCE FROM OAR 340-30-045(b), COMPLIANCE SCHEDULES FOR LANG AND GANGNES CORPORATION dba MED PLY IN WHITE CITY, OREGON

Background

Lang and Gangnes Corporation dba Med Ply operates a plywood plant in White City, Oregon. This plant includes three veneer dryers. Specific air pollution control rules for the Medford/Ashland Air Quality Maintenance Area were adopted in March, 1978. These rules, specifically OAR 340-30-045(b), Veneer Dryers Compliance Schedules, require the completion of veneer dryer controls by January 1, 1980. Med Ply has requested a 12 month variance from OAR 340-30-045(b), for economic reasons.

Plans for veneer dryer controls were submitted by Med Ply and approved by the Department in June, 1979. At the same time Med Ply indicated that working capital was extremely limited and that it did not have adequate funds ($120,000) for the veneer dryer controls. Med Ply began actively seeking government grants or loans through the Department of Economic Development. The company has not yet secured adequate financing and the purchase orders have not been issued.

The Commission is authorized by ORS 468.345 to grant variances from the Department rules if it finds strict compliance inappropriate because, among other options, "specific circumstances render strict compliance unreasonable", or "strict compliance would result in substantial curtailment or closing down of the business, plant or operation."

Alternatives and Evaluation

This plant was formerly operated by Medford Veneer and Plywood Corporation, a worker owned cooperative. Medford Veneer and plywood Corporation filed bankruptcy in June, 1978. Lang and Gangnes Corporation reopened the plant as aprivately owned corporation in November, 1978.

The Med Ply plant is located in a nonattainment area. Particulate air pollution in the Medford/Ashland AQMA has worsened since 1975. However, veneer dryer emissions from this plant using the present strategy have relatively minor impact on the airshed.

The company has indicated that Clyde Lang and Clayton Gangnes mortgaged all of their personal assets to reopen this plant in November, 1978. Med Ply explained in June, 1979 (during a relatively healthy plywood market) that its working capital was extremely limited and that adequate funds were not available for the needed veneer dryer controls ($120,000). In the attached variance request the company indicated that the plywood market has deteriorated and that the money markets have tightened up. Med Ply has indicated that prices on raw materials have increased and reduced the profit margin. Med Ply has provided financial details (see Attachment 1).

In the absence of a variance, Med Ply would be required to meet the opacity limits for veneer dryer emissions effective January 1, 1980. This would require a limitation on the species of wood dried in the veneer dryers. Emissions from drying White Fir veneer are typically lower than from drying Douglas Fir or Pine veneer. Med Ply could probably meet the opacity limit by drying only White Fir in the veneer dryers.

Med Ply has requested a 12 month variance from the January 1, 1980 compliance date for veneer dryer controls on dryer #3. The variance would allow Med Ply to maintain normal production during the period that control equipment is financed and installed.

Visible emissions from dryers #1 and #2 have been below the average opacity limit (10%). Visible emissions from dryer #3 during representative conditions (while drying Douglas Fir) in May, 1979, averaged 15% opacity. During normal production (White Fir in dryers #1 and #2, and Douglas Fir in dryer #3) veneer dryer emissions averaged about 6 lbs. per hour or 15 tons per year. The plant site emissions limit for the veneer dryers is 22 tons per year. By drying White Fir in two of the three veneer dryers, Med Ply has been able to stay within its plant site emission limit. The

addition of controls (probably a Burley scrubber) to dryer #3 would reduce the plant site emissions by about 4 tons per year. Med Ply maintains that the operation of all three veneer dryers on White Fir is not a viable option for economic reasons.

The statute allows the Commission to grant variances, if special circumstances render strict compliance unreasonable or if strict compliance would result in closure of a plant. Med Ply maintained and the Department concurs that limited operating capital due to the recent reopening of the plant following bankruptcy render strict compliance unreasonable and that strict compliance with the veneer dryer rule would result in substantial curtailment or closing down of the plant.

The Department proposes a variance from OAR 340-30-045(b) with the following conditions:

1. By no later than March 1, 1980, the company shall submit a control strategy including plans and specifications, and compliance schedule for control of veneer dryer #3.

2. The veneer dryer emission control equipment shall be installed and operational by January 1, 1981.

3. Med Ply shall dry only White Fir veneer in dryers #1 and #2.

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

5. This variance expires January 1, 1981.

Summation

1. Lang and Gangnes Corporation dba Med Ply has requested a variance from OAR 340-30-045(b), Veneer Dryer Compliance Schedule, until January 1, 1981 for the operation of its veneer dryer #3 in White City, Oregon. The rule requires compliance by no later than January 1, 1980.

2. The Commission has the authority under ORS 468.345 to grant a variance from a rule if special circumstances render strict compliance unreasonable or if strict compliance would cause a substantial curtailment or closing down of a plant.

3. Visible emissions from veneer dryers #1 and #2 are well within the

average opacity limit (10%). Visible emissions from dryer #3 consistently exceed opacity limits.

4. Particulate emissions from all three veneer dryers are estimated to be 15 tons per year. The proposed variance would result in an additional 4 tons of particulate emissions during 1980.

5. This plant was formerly operated by Medford Veneer and Plywood Corporation which went bankrupt in June, 1978. The plant has reopened by Lang and Gangnes in November, 1978. Med Ply has indicated that operating capital is very limited and that funds are not currently available for the needed veneer dryer controls ($120,000).

6. Med Ply maintains and the Department concurs that special financial circumstances render strict compliance unreasonable and that strict compliance with the veneer dryer rule would result in a substantial curtailment for the needed veneer dryer controls ($120,000).

Directors Recommendation

Based upon the findings in the Summation, it is recommended that the Commission grant a variance from OAR 340-30-045(b), Veneer Dryers Compliance Schedule, to Lang and Gangnes Corporation dba Med Ply for the operation of its veneer dryer #3 in White City, Oregon, subject to the following conditions:

1. By no later than March 1, 1980, the company shall submit a control strategy, including plans and specifications and compliance schedule for control of veneer dryer #3.

2. The veneer dryer emission control equipment shall be installed and in operation by January 1, 1981.

3. Veneer dryer #1 and #2 shall only dry White Fir veneer.

4. If the Department determines that the veneer dryers emissions cause significant adverse impact on the community airshed, this variance may be revoked.

5. This variance expires January 1, 1981.

Bill
William H. Young

F. A. SKIRVIN:m
229-6414
November 29, 1979
Attachments: 1) Med Ply variance Request

AQ-Jackson Co.

Attachment 1

Medply

15-0018
Medply Products

Offices
8250 AGATE ROAD
P. O. BOX 2488 • WHITE CITY, OREGON 97501
Telephone (503) 826-3142

November 16, 1979

Merlyn Hough
Environmental Specialist
Department of Environmental Quality
201 W. Main St. Room 2D
Medford, Oregon 97501

Dear Mr. Hough,

We request that a 12 month variance be granted to us to continue in operation because of the following conditions per your rule #468.345.

A. Conditions exist that are beyond the control of the persons granted such a variance. The plywood market has deteriorated to the point where a sizeable number of plywood mills in the Rogue Valley have either closed down or are planning to close down. The money markets have tightened up to where it is almost impossible to obtain money for needed improvements. Prices on all of our raw materials have soared to the point we are operating on a very narrow margin.

B. Special circumstances render strict compliance unreasonable, burdensome or impractical due to special physical conditions. Under the present market this is very applicable.

C. Strict compliance would result in substancial curtailment or closing down of a business plant or operation. Without a variance we would be forced to close down and put over 80 people out of work.

D. No other alternative facility or method of handling is yet available.

Inspite of the above I feel convinced that with a variance we can continue to operate and within a 12 month period can obtain the necessary funds, have the equipment installed and be in compliance. We are already in compliance on all items except for one dryer which exceeds compliance by only 5%.

Sincerely,

Clyde Lang, General Manager
Lang & Gangnes Corp. dba Medply

Attachment 1

Medply

Medply Products

Offices
8250 AGATE ROAD
P. O. BOX 2488 • WHITE CITY, OREGON 97501
Telephone (503) 826-3142

November 27, 1979

Mr. Edward Woods
Dept. of Environmental Quality
P. O. Box 1760
Portland, Oregon 97207

Dear Mr. Woods,

Per our phone conversation today 11-27-79, enclosed is a statement of our financial condition. There is also a list of the improvements we have made. I feel confident that we can have our mill in compliance within the next 12 months and if we are successful in obtaining a loan 6 months should be sufficient.

Sincerely,

Clyde Lang
President

cc: Merlyn Hough
Dept. of Environmental Quality
201 W. Main St. Room 2D
Medford, Oregon 97501

DBA MED-PLY
8250 Agate Road
P. O. Box 2488
White City, Oregon 97501
826-3142

Attachment 1

1979 improvements in the technical and mechanical operations at Medply.

Greater efficiency, increased productivity, savings on downtime, better competitive position in the market has been attained by a great number of inovations, improvements, rebuilding and additions of equipment. Most of these items have cost the present cash position, but their value is many times greater in the short and long term effectiveness of the mill operations.

The supervisory personnel place an estimate of $450,000 in attaining the following items from outside sources, but we accomplished it at a fraction of the cost. This list is not complete but it will cover the major points accomplished:

1. We built a string tie machine that would have cost $175,000 from the market place. By passing $21/MSM veneer through the machine it becomes $29/MSM veneer. When this machine is on line nextweek we have the capability to run the whole operation on the lowest priced veneers on the market and upgrade them to create a profitable pannel. After labor costs for three shifts, this machine will create $708.00 of increased value per day.

2. We rebuilt and modified a second string tie machine that had been barely operational. With two string tie machine upgrading the random and fishtails, we will be in a better competitive position in the up and downs of the market.

3. The five pluggers have been completely overhauled at our cost of $7,500. This would have cost at least $37,000 from outside sources. These pluggers take $29/MSM veneer and turn it into $67/MSM veneer. The five pluggers have the capability to upgrade the value of the veneer by $2,160 per day. The first three itmes are the foundation to our total program of turning a marginal profitable pannel or a less pannel in the current market into a profitable pannel. This strength will show up greater in late spring when the market starts on the upside again. It is also one of the reasons how we, as a small mill, are able to operate at a profit when larger operations are just too big to have such an extensive upgrading program as we do, they will operate at a loss or close down in a down market.

4. The two 75 h.p. compressors have been rebuilt and all leaks in the lines have been fixed to the point that only one compressor will handle the total load. This was an immediate $1,000 savings in monthly electrical consumption.

5. The seven jitneys have been totally overhauled and are in the best of mechanical condition since they were new. This would reflect a $9,000 per machine increase in value should we purchase one.

6. We save a great amount of water now that we installed a waste water recirculation system that takes water that used to go through compressors and out to a ditch. Now it is recirculated back into the boiler and used for steam.

7. A boiler feed pump was taken out of the junk pile and for $1,200 in repairs we now have a $6,000 standby pump.

8. The three condensate pumps on the dryers have been rebuilt. The three dryers themselves have been gone through to bring them up to top mechanical order, along with plugging leaks and insulating lines.

9. The two value house control systems have been rebuilt on our fire sprinkler system.

10. We put a rebuilt engine in one of our trucks with a 100,000 mile warranty. The two trucks are in top condition and we run the, constantly. We also put a new door in the truck shop that had been bent up for two years.

11. The new putty patch line was used for a short time before we bought the mill and it is completely operational and increases the efficiency and production of our sanded pannels. The value of this machine on line is $80,000.

12. We rebuilt and modernized our hog and fan syatem and eliminated its many problems. Installed interlock control system on the sanded, hog and dust system.

13. A new press and building had been installed but had many problems. We have modified the system so it is in good operation.

14. One spreader was going to be junked, we have rebuilt it and overhauled the other two spreaders to eliminate the downtime that was a problem.

15. The Carter Day dust control and fan system has been completely rerebuilt.

16. The railroad door has been converted from manual to electric.

17. We installed a standby glue pump. Rebuilt the glue mix tubs and rebuilt the drive on the wide belt sander.

18. The parking lot used to be one mud hole. We hauled in fill rock to raise the grade up, crushed rock and granite for a base, then graded and packed it for drainage.

Attachment 1

LANG & GANGNES CORPORATION, WHITE CITY OR.
STATEMENT OF FINANCIAL CONDITION
OCTOBER 31, 1979

ASSETS	OCTOBER	SEPTEMBER	NET CHANGE
CURRENT ASSETS:			
CASH ACCOUNTS	(23671)	(5106)	(18565)
ACCOUNTS REC.	118926	110951	7975
INVENTORIES	176526	129200	47325
PREPAID EXPENSES	9921	9021	900
TOTAL CURRENT ASSETS	281702	244066	37636
PLANT PROPERTY & EQUIP.			
COST	458345	454414	3931
LESS ACCUM. DEPREC.	(54625)	(49619)	(5006)
NET BOOK VALUE	403720	404795	(1075)
OTHER ASSETS			
DEFFERED MAINT.	12191	12572	(381)
DEPOSITS	55233	55214	19
ORGANIZATIONAL COSTS	2802	2860	(58)
OFFICERS SAL. ADV.	73328	69226	4102
ADVANCES ON COMM.	---	14100	(14100)
FINANCING COSTS	1610	1130	480
TOTAL OTHER ASSETS	145164	155102	(9938)
TOTAL ASSETS	830586	803963	26623

LIABILITIES & STOCKHOLDERS EQUITY	OCTOBER	SEPTEMBER	NET CHANGE
CURRENT LIABILITIES:			
NOTES PAYABLE-CURRENT	101569	101319	250
ACCTS. PAY. VEN.	39723	12692	27031
ACCTS. PAY. TRADE	143113	89096	54017
ACCRUED SALARIES	44515	40566	3949
ACCRUED TAXES	60456	62069	(1613)
PREPAID SALES		3164	(3164)
TOTAL CUR. LIAB.	389376	308906	80470
LONG TERM DEBTS.			
NOTES PAYABLE	357717	357846	(129)
LESS CURR. PORT.	(101569)	(101319)	(250)
TOTAL L.T. DEBT.	256148	256527	(379)
TOTAL LIABILITIES	645524	565433	80091
STOCKHOLDERS EQUITY			
CAPITAL STOCK	100000	100000	
RETAINED EARNINGS	85062	138530	(53468)
TOTAL STOCKHOLDERS EQUITY	185062	238530	(53468)
TOTAL LIABILITIES & STOCKHOLDERS EQUITY	830586	803963	26623

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. I(4), December 14, 1979, EQC Meeting

Request for Variance from OAR 34-30-045(a), Compliance Schedule, for the Boiler at Medford Corporation in Medford, Oregon

Background and Problem Statement

Medford Corporation has requested a variance from OAR 340-30-045(a) for the operation of their Riley hogged fuel boiler beyond the January 1, 1980, compliance deadline for meeting the particulate emission limits.

Medford Corporation has submitted plans and specifications for the boiler control equipment. Preliminary construction work will begin in December, 1979, however, delay in delivery of the fan for the control system will prevent completion of construction work until April 1, 1980.

The Commission is authorized by ORS 468.345 to grant variances from the Department's rules, if it finds that strict compliance is inapproriate because conditions exist that are beyond the control of the persons granted such variance or strict compliance will result in substantial curtailment or closing down of the plant.

Alternatives and Evaluation

Medford Coproration operates three hogged fuel boilers at their plant in Medford. Two of these boilers are in compliance with the 0.05 grains per dry standard cubic foot standard and one is on a compliance schedule, as a result of the special rules for the Medford/Ashland Air Quality Maintenance Area. Completion of the control equipment for the Riley boiler has been delayed by the delivery of the induced draft fan until March 1, 1980. Construction will begin during the Christmas shut-down period and will be completed except for the installation of the fan prior to March 1, 1980. Upon delivery, the fan will be installed and the control system completed.

The Department has proposed a variance from the compliance deadline because the equipment delivery delays are beyond the control of the company.

The Riley boiler is limited to 0.05 grains per standard cubic foot, 40 percent opacity and 72 tons per year. Operation of this boiler at current emission rates (0.17 gr/SCF, 250 tons per year) during the first four months of 1980 may result in an additional 80 tons per year of particulate emissions during that period. The boilers produce steam for the operation of the sawmill, plywood plant and fiberboard plant. If the Riley boiler was shut down until control equipment could be installed both the plywood and fiberboard plants would also have to be shut down. This could result in a lay off of up to 400 employes.

Because the delay in completion of the control system is beyond the control of the company, the Department has proposed a variance subject to the following conditions:

1. On-site construction of the control equipment shall be completed by April 1, 1980.

2. The results of the particulate emissions source test shall be submitted by no later than June 1, 1980.

3. The portion of the plant site emission limit allocated to the Riley boiler will not be applicable until April 1, 1980. It will be prorated for the remainder of the calendar year.

4. If the Department determines that the veneer dryer emissions cause significant adverse impacts on the community or airshed, this variance may be revoked.

5. The variance expires on April 1, 1980.

Summation

1. Medford Corporation has requested a variance from OAR 340-30-045(a) compliance schedules until April 1, 1980, for the operation of its Riley boiler.

2. The rule requires that controls for hogged fuel boilers be completed by no later than January 1, 1980. Because of delays in delivery of a portion of the control system, Medford Corporation will be unable to complete its boiler control until April 1, 1980.

3. Particulate emissions during the term of the variance may be 80 tons per year more than allowed by the plant site emission limits.

4. Medford Corporation maintains and the Department concurs that the construction delays are beyond the control of the company and that strict compliance with the rules would result in substantial curtailment of production at this facility.

5. The Commission has the authority under ORS 468.345 to grant a variance from a rule if conditions exist beyond the control of a company or strict compliance would cause a substantial curtailment or closing down of a plant.

Directors Recommendation

Based upon the findings in the Summation it recommended that the Commission grant a variance from OAR 340-30-045(a), Compliance Schedules to Medford Corporation for the operation of its Riley boiler subject to the following conditions:

1. On-site construction of the control equipment shall be completed by April 1, 1980.

2. The results of the particulate emission source test shall be submitted by no later than June 1, 1980.

3. The portion of the plant site emission limit allocated to the Riley boiler will not be applicable until April 1, 1980. It will be prorated for the remainder of the calendar year.

4. If the Department determines that the veneer dryer emissions cause significant adverse impacts on the community or airshed, this variance may be revoked.

5. This variance shall expire on April 1, 1980.

Bill

William H. Young

F.A. Skirvin:n
229-6414
November 29, 1979
AN8640
Attachments:
1. Variance Request from Medford Corporation

MEDFORD CORPORATION
P.O. BOX 550, MEDFORD, OREGON 97501 ★ TELEPHONE 503 - 773-7491

To HMP ~~Weatherbee~~
Re. confer. Spd

November 20, 1979

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
NOV 2 3 1979
AIR QUALITY CONTROL

Mr. William Young, Director
Department of Environmental Quality
P. O. Box 1760
Portland, OR 97207

Dear Bill:

Oregon Administrative Rule 340-30-045(a) prescribes that wood waste boilers shall be in compliance with OAR 340-30-015 by January 1, 1980. Medford Corporation respectfully requests a variance from that rule under the provisions of ORS 468.345(1)(a)(c) until April 1, 1980.

Burley Industries informs us that the manufacturer of the induced draft fan for this project cannot make delivery until March 1, 1980. Preliminary work will begin on the project during the Christmas shutdown and construction will continue so that the installation of the fan will complete the project.

A shutdown of this boiler for noncompliance will require the closure of the plywood and fiberboard plants. This will result in the layoff of 419 employees.

We believe this variance is justified on the basis that the delivery of equipment is beyond our control and further that the loss of employment would place an undue hardship on a substantial number of people. It should be noted that this particular boiler consistently operates very close to the state standards for new boilers (0.1 gr/dscf) so delay will not have serious impact on the AQMA.

If there is further information needed, please contact me.

Sincerely,

L. W. Newbry
Vice President - Public Affairs

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
NOV 23 1979
OFFICE OF THE DIRECTOR

LWN/dl

Enclosure: Letter from Burley Industries

cc: F. Skirvin

BURLEY INDUSTRIES 680 F STREET, COOS BAY, OREGON 97420 • (503) 269-5149

November 19, 1979

Medford Corporation
Box 550
Medford, Oregon 97501

Attention: Lynn Newbry

Dear Mr. Newbry:

I am sorry to inform you that there will be a delay in the start and completion of the boiler scrubber project for your #3 boiler. Deliveries of the new I.D. fan and motor are not expected before March 1st of 1980. Since the fan is a key component it will delay the scrubber installation until this fan is set. Installation of the scrubber should occur approximately two weeks after the arrival of the fans.

I will keep you posted on any possible changes in the fan delivery dates.

Sincerely,

George Potter
President

gp:sm
cc: Ed Butchino

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 K, December 14, 1979, EQC Meeting

Review of Tax Credit Program Forms, Instructions, Attorney General Opinions and Precedents

Background

At the September 21, 1979 EQC Meeting, the Commission agreed with the recommendation of the Director to forego rulemaking on the tax credit program in favor of review and approval of a staff codification of EQC established precedents, Attorney General opinions, and agency procedures, forms and instructions.

The purpose of this staff report is to review the work accomplished to date and receive direction on the work remaining to be completed.

Discussion

The approach the staff is taking is to compile the information into booklets that can be used by potential applicants as well as Department staff. Two versions of the booklet will be prepared, one for potential applicants and one for internal use. It is hoped that the booklets will provide the best available information on the tax credit program to applicants, and provide a resource document to agency staff to improve consistency and quality of decision-making in operation of the program.

Attachment 1 to this staff report is the draft booklet for internal use with several incomplete sections. When completed it should contain the tax credit statutes, Attorney General opinions, EQC established precedents, forms and instructions for applicants, methods of determining percent of cost allocable to pollution control, and formats for EQC tax credit staff reports. The booklet for potential applicants will exclude the staff report formats and the complete copies of Attorney General opinions.

Presently the draft booklet contains: (1) current copies of all state statutes affecting the tax credit program; (2) a summary of all written Attorney General opinions interpreting the tax credit statutes, and a full copy of each opinion summarized; (3) copies of the forms and instructions provided to potential applicants; and (4) formats for EQC tax credit staff reports.

No information on EQC established precedents is included in Attachment 1 because the Department has not completed researching and codifying them yet. Staff believes that work on codifying precedents will be completed for Commission review no later than the March 1980 meeting. In the meantime, precedents identified to date by the staff have been included as Attachment 2 to this report.

One other topic also needs further work: codification of the methods the agency uses to determine the percent of a project allocable to pollution control (ORS 468.190). The methods the Department has been using need to be codified and reviewed in light of current economic conditions. This process should also be completed no later than the March EQC meeting.

When staff brought this item before the Commission in September, it projected that the project could be completed by November 1979. Once underway it became apparent that more work was involved than was envisioned in September and the project could not be completed on time. Rather than wait until all work is done, staff has decided to bring this report to the Commission in December for approval of the portions completed to date and direction on the remaining portions.

Director's Recommendation

It is recommended that the Commission take note of the information contained in Attachment 1 and concur in its use in administration of the tax credit program. It is further recommended that the Commission direct the staff to return to the Commission no later than March 1980 with a codification of precedents and methods of determining percent allocable, and a completed Attachment 1 for Commission review and approval.

Bill

WILLIAM H. YOUNG

MJDowns:cs
229-6484
12/4/79
Attachments (2)

ATTACHMENT 1

State of Oregon

Department of Environmental Quality

Pollution Control Facilities Tax Credit Program

December 1979

TABLE OF CONTENTS

INTRODUCTION

INTRODUCTION

The Pollution Control Facilities Tax Credit Program was first enacted by the Oregon Legislative Assembly in 1967. At that time, facilities constructed to prevent, control, or reduce air or water pollution were made eligible for tax credit certification. In 1973 the Legislature made the use of a resource recovery process which obtains useful material or energy resources from material that would otherwise be solid waste eligible for tax credit certification.

The Legislature further amended the statutes in 1977 to add noise pollution control facilities to the list of facilities eligible for tax credit certification. Then in 1979 the recovery of useful material or energy resources from hazardous wastes or used oil was also made eligible for certification.

Persons interested in obtaining tax credit certification must follow a specific procedure outlined in the statutes by making application to the Department of Environmental Quality and receiving final approval from the Environmental Quality Commission. Figure 1 diagrams the application, review and approval process. More detailed information is contained in this booklet in the Statutes Section and the Forms and Instructions Section. It is very important that the procedures be followed exactly to ensure eligibility for certification is not forfeited due to procedural error.

After certification is received from the Environmental Quality Commission, the person holding the certification obtains actual tax relief from the Oregon Department of Revenue or County Assessor, where the facility is located, depending upon the tax relief elected. The choices are personal income tax, corporate excise tax, or property tax relief. Further information is contained in this booklet in the Statutes Section or may be obtained by contacting the Oregon Department of Revenue or County Assessor directly.

Since the commencement of the program, facilities costing in excess of $250 million have been certified for tax relief. Table 1 shows the number and cost of facilities certified by year by agency program. Tables 2, 3, and 4 show the types of facilities certified and their number and cost, for the Air Quality, Water Quality, and Solid Waste Management Programs respectively.

The remainder of this document is devoted to providing the best information available on the details of the tax credit program for the use of potential applicants as well as Department staff and other interested parties.

Figure 1

POLLUTION CONTROL FACILITY TAX CREDIT CERTIFICATION PROCESS

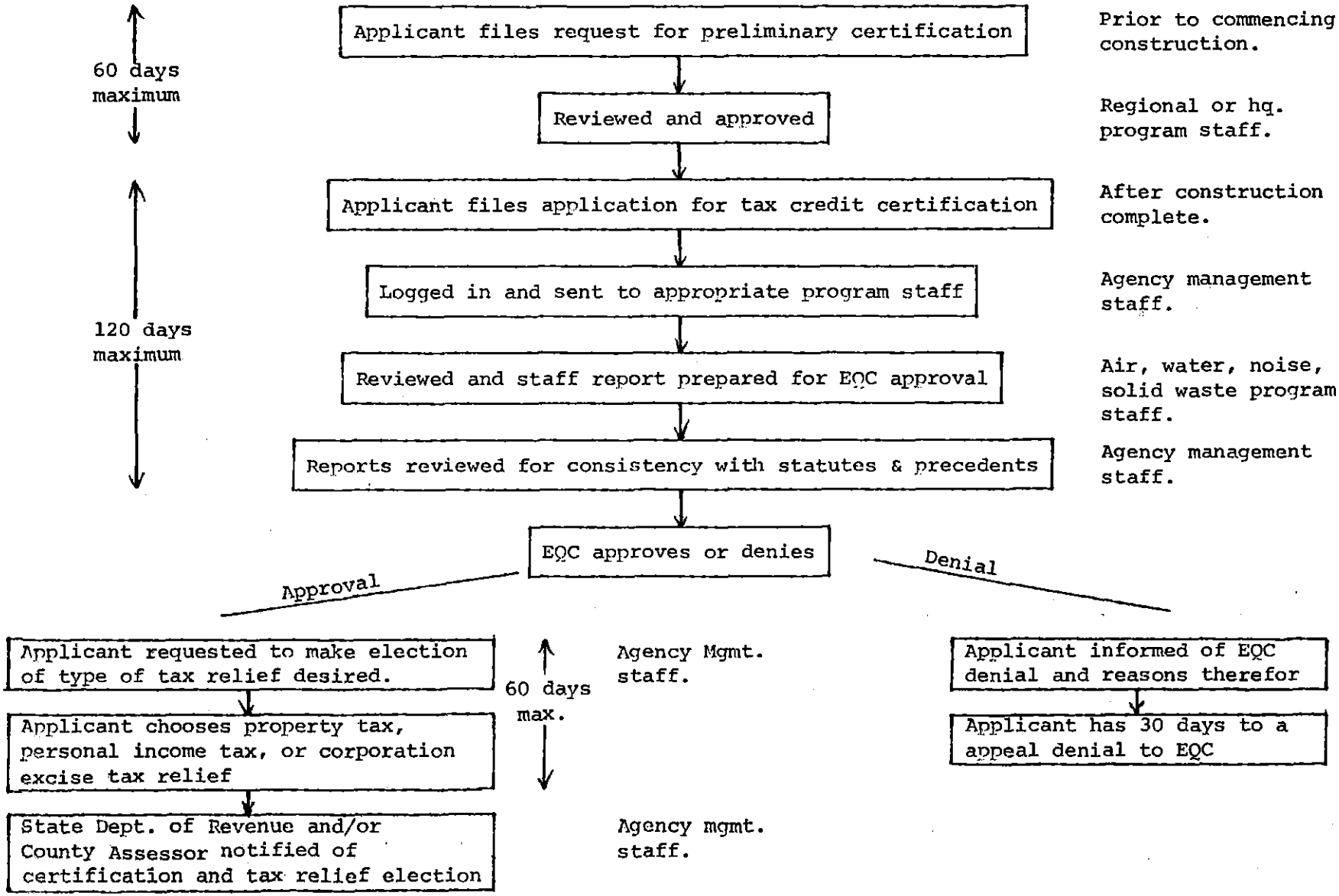

TABLE 1

DEPARTMENT OF ENVIRONMENTAL QUALITY

February, 1979

Tax Credit Certificates Issued for Pollution Control Facilities

Calendar Year	Air Pollution Control Facilities		Water Pollution Control Facilities		Solid Waste Control Facilities		Noise Pollution Control Facilities		T O T A L	
	No. Cert.	Certified Cost.	No. Cert.	Certified Cost	No. Cert.	Certified Cost	No. Cert.	Certified Cost	No. Cert.	Certified Cos
1968	24	1,958,781	17	3,945,435	--	N/A	--	N/A	41	5,904,21
1969	22	1,305,789	14	3,855,141	--	N/A	--	N/A	36	5,160,93
1970	23	1,693,919	26	5,862,684	--	N/A	--	N/A	49	7,556,60
1971	38	7,345,826	26	9,946,636	--	N/A	--	N/A	64	17,292,46
1972	82	13,268,426	41	2,202,401	--	N/A	--	N/A	123	15,470,82
1973	97	12,124,500	47	13,764,649	-0-	-0-	--	N/A	144	25,889,14
1974	63	19,851,841	16	3,697,894	-0-	-0-	--	N/A	79	23,549,73
1975	56	18,674,741	34	10,590,618	6	5,703,350	--	N/A	96	34,968,70
1976	66	15,917,093	33	14,308,742	10	6,833,330	--	N/A	109	37,059,16
1977	49	11,095,785	40	2,121,713	7	7,040,082	-0-	-0-	96	20,257,58
1978	36	28,026,670	34	14,668,638	12	18,779,276	-0-	-0-	82	61,474,58
TOTAL	556	$131,263,371	328	$84,964,551	35	$38,356,038	-0-	-0-	919	$254,583,96

N/A = Not Applicable

TABLE 2

DEPARTMENT OF ENVIRONMENTAL QUALITY
FEBRUARY 1979

AIR POLLUTION CONTROL FACILITIES CERTIFIED FOR TAX CREDIT
JANUARY 1, 1967 THROUGH JANUARY 31, 1979

Type of Facility	Number Certified	Certified Cost	Percent of Total Certified Cost
Steel Mills and Foundries Emission Control Systems	31	$ 4,254,075	3.2
Pulp and Paper Industry Emission Control Systems	93	48,743,581	37.1
Nickel and Aluminum Smelting Industry Emission Control Systems	27	39,480,312	30.0
Carbide Alloys, Silicon and Exotic Metals Manufacturing Emission Control Systems	28	5,482,625	4.2
Wood Products Industry Emission Control Systems	242	24,829,989	18.9
Cement, Asphals and Rock Crushing Industry Emission Control Systems	51	3,632,848	2.8
Chemical and Electronics Industry Emission Control Systems	9	1,809,765	1.4
Orchard Heating Systems	38	851,717	<1.0
Food Processing Industry Emission Control Systems	12	1,301,638	1.0
Miscellaneous	27	1,156,142	<1.0
TOTAL	558	131,542,692	

TABLE 3

DEPARTMENT OF ENVIRONMENTAL QUALITY
FEBRUARY 1979

WATER POLLUTION CONTROL FACILITIES CERTIFIED FOR TAX CREDIT
JANUARY 1, 1967 THROUGH JANUARY 31, 1979

Type of Facility	Number Certified	Certified Cost	Percent of Total Certified Cost
Chemical, Exotic Metals, and Metal Plating Industries, Waste Treatment Systems	45	$ 5,083,825	6.0
Electronics Industry Waste Treatment Systems	23	203,773	<1.0
Steel and Aluminum Manufacturing Industries Waste Treatment Systems	8	6,325,309	7.4
Pulp and Paper Industry Waste Treatment Systems	96	57,902,643	68.1
Wood Products Industry Waste Treatment Systems	37	3,768,708	4.4
Log Handling Systems	12	3,180,204	3.7
Food Processing Industry Waste Treatment Systems	32	6,480,785	7.6
Farm Animal Wastes Treatment Systems	38	404,302	<1.0
Surface Runoff and Spill Prevention Systems	19	660,158	<1.0
Miscellaneous	20	1,036,919	1.2
TOTAL	330	$85,046,626	

TABLE 4

DEPARTMENT OF ENVIRONMENTAL QUALITY

February 1979

SOLID WASTE FACILITIES CERTIFIED FOR TAX CREDIT

January 1, 1973 through January 31, 1979

Type of Facility	Number Certified	Certified Cost	Percent of Total Certified Cost
Waste wood fuel boilers	5	7,773,621	20.2%
Turbine generators	1	2,547,911	6.6%
Industrial wood waste utilization facilities	10	3,023,268	7.9%
Wood hogs, chippers and hog fuel preparation facilities	5	597,863	1.6%
Conversion of wood waste to to fuel for sale to public	2	222,872	< 1.0%
Fibreboard Plant	1	12,870,494	33.5%
Bark Utilization Plant	1	4,521,276	11.8%
Paved log deck	3	838,270	2.2%
Waste paper baler/shredder	2	74,481	< 1.0%
Newsprint de-inking and repulping facilities	3	5,808,087	15.1%
Straw baling and storage facilities	1	78,800	< 1.0%
Shredded tire storage and metering facility	1	91,083	< 1.0%
Aggregate reclaiming facility	1	21,307	< 1.0%
TOTALS	36	$38,469,333	

TAX CREDIT STATUTES

sion or before the board of directors of a regional air quality control authority.

(3) All hearings shall be conducted pursuant to the applicable provisions of ORS chapter 183.

(4) Unless the amount of the penalty is paid within 10 days after the order becomes final, the order shall constitute a judgment and may be filed in accordance with the provisions of ORS 18.320 to 18.370. Execution may be issued upon the order in the same manner as execution upon a judgment of a court of record.

(5) All penalties recovered under ORS 468.140 shall be paid into the State Treasury and credited to the General Fund, or in the event the penalty is recovered by a regional air quality control authority, it shall be paid into the county treasury of the county in which the violation occurred.
[Formerly 449.973]

468.140 Civil penalties for specified violations. (1) In addition to any other penalty provided by law, any person who violates any of the following shall incur a civil penalty for each day of violation in the amount prescribed by the schedule adopted under ORS 468.130:

(a) The terms or conditions of any permit required or authorized by law and issued by the department or a regional air quality control authority.

(b) Any provision of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, ORS chapter 467 and this chapter.

(c) Any rule or standard or order of the commission adopted or issued pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, ORS chapter 467 and this chapter.

(d) Any term or condition of a variance granted by the commission or department pursuant to ORS 467.035.

(e) Any rule or standard or order of a regional authority adopted or issued under authority of subsection (1) of ORS 468.535.

(2) Each day of violation under subsection (1) of this section constitutes a separate offense.

(3) (a) In addition to any other penalty provided by law, any person who intentionally or negligently causes or permits the discharge of oil into the waters of the state shall incur a civil penalty not to exceed the amount of $20,000 for each violation.

(b) In addition to any other penalty provided by law, any person who violates the terms or conditions of a permit authorizing waste discharge into the waters of the state or violates any law, rule, order or standard in ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter relating to water pollution shall incur a civil penalty not to exceed the amount of $10,000 for each day of violation.

(4) Paragraphs (c) and (e) of subsection (1) of this section do not apply to violations of motor vehicle emission standards which are not violations of standards for control of noise emissions.

(5) Notwithstanding the limits of subsection (1) of ORS 468.130 and in addition to any other penalty provided by law, any person who intentionally or negligently causes or permits open field burning contrary to the provisions of ORS 468.450, 468.455 to 468.480, 476.380 and 478.960 shall be assessed by the department a civil penalty of at least $20 but not more than $40 for each acre so burned. Any fines collected by the department pursuant to this subsection shall be deposited with the State Treasurer to the credit of the General Fund and shall be available for general governmental expense.
[Formerly 449.993; 1975 c.559 §14; 1977 c.511 §5]

POLLUTION CONTROL FACILITIES TAX CREDIT

468.150 Field sanitation and straw utilization and disposal methods as "pollution control facilities." After alternative methods for field sanitation and straw utilization and disposal are approved by the committee and the department, "pollution control facility," as defined in ORS 468.155, shall include such approved alternative methods and persons purchasing and utilizing such methods shall be eligible for the benefits allowed by ORS 468.155 to 468.190.
[1975 c.559 §15]

Note: 468.150 was enacted into law by the Legislative Assembly but was not added to or made a part of ORS chapter 468 or any series therein by legislative action. See the Preface to Oregon Revised Statutes for further explanation.

468.155 Definitions for ORS 468.155 to 468.190. (1) As used in ORS 468.155 to 468.190, unless the context requires otherwise, "pollution control facility" or "facility"

means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if a substantial purpose of such use, erection, construction or installation is the prevention, control or reduction of air, water or noise pollution or solid waste by:

(a) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468.700;

(b) The disposal or elimination of or redesign to eliminate air contaminants or air pollution or air contamination sources and the use of air cleaning devices as defined in ORS 468.275;

(c) The substantial reduction or elimination of or redesign to eliminate noise pollution or noise emission sources as defined by rule of the commission; or

(d) The use of a resource recovery process which obtains useful material or energy resources from material that would otherwise be solid waste as defined in ORS 459.005. For the purposes of ORS 468.155 to 468.190, "solid waste facility" shall also include subsequent additions, made either to an already certified facility or to an operation which would have qualified as a facility but for the fact that it was erected, constructed or installed prior to January 1, 1973, which will increase the production or recovery of useful materials or energy over the amount being produced or recovered by the original facility whether or not the materials or energy produced or recovered are similar to those of the original facility.

(2) "Pollution control facility" or "facility" does not include air conditioners, septic tanks or other facilities for human waste, nor any property installed, constructed or used for the moving of sewage to the collecting facilities of a public or quasi-public sewerage system, nor any solid waste facility or portion or portions thereof whose substantial purpose is not for the direct utilization of materials as described in subparagraph (A) of paragraph (c) of subsection (1) of ORS 468.165.

[Formerly 449.605; 1975 c.496 §1; 1977 c.795 §1]

468.160 Policy. In the interest of the public peace, health and safety, it is the policy of the State of Oregon to assist in the prevention, control and reduction of air, water and noise pollution and solid waste in this state by providing tax relief with respect to Oregon facilities constructed to accomplish such prevention, control and reduction.

[Formerly 449.615; 1975 c.496 §2; 1977 c.795 §2]

468.165 Application for certification of pollution control facilities. (1) Any person may apply to the commission for certification under ORS 468.170 of a pollution control facility or facilities or portion thereof erected, constructed or installed by him in Oregon if:

(a) The air or water pollution control facility was erected, constructed or installed on or after January 1, 1967.

(b) The noise pollution control facility was erected, constructed or installed on or after January 1, 1977.

(c) The solid waste facility was under construction on or after January 1, 1973, and if:

(A) The substantial purpose of the facility is to utilize material that would otherwise be solid waste as defined in ORS 459.005 by burning, mechanical process or chemical process or through the production, processing including presegregation or otherwise, or use of materials for their heat content or other forms of energy of or from the material, or the use of materials which have useful chemical or physical properties and which may be used for the same or other purposes, or materials which may be used in the same kind of application as its prior use without change in identity;

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

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

(D) The Oregon law regulating solid waste imposes standards more stringent than the federal law requires.

(2) The applications shall be made in writing in a form prescribed by the department and shall contain information on the actual cost of the facility or facilities, a description of the materials incorporated therein, all machinery and equipment made a part thereof, the existing or proposed operational procedure thereof, and a statement of the purpose of prevention, control or reduction of air, water or noise pollution or solid waste served or to be served by the facility or facili-

ties and, for a facility qualifying under paragraph (a) or (b) of subsection (1) of this section, the portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution as set forth in subsection (2) of ORS 468.190.

(3) The director may require such further information as he considers necessary prior to issuance of a certificate.
[Formerly 449.625; 1974 s.s. c.37 §2; 1975 c.496 §3; 1977 c.795 §3]

468.170 Action on application; effect of rejection; appeal; issuance of certificate; effect of certification. (1) The commission shall act on an application for certification before the 120th day after the filing of the application under ORS 468.165. The action of the commission shall include certification of the actual cost of the facility and, for facilities qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, the portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution as set forth in subsection (2) of ORS 468.190. Each certificate shall bear a separate serial number for each such facility.

(2) If the commission rejects an application for certification, or certifies a lesser actual cost of the facility or a lesser portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution or solid waste than was claimed in the application for certification, the commission shall cause written notice of its action, and a concise statement of the findings and reasons therefor, to be sent by registered or certified mail to the applicant before the 120th day after the filing of the application. Failure of the commission to act constitutes rejection of the application.

(3) If the application is rejected for any reason, including the information furnished by the applicant as to the cost of the facility, or if the applicant is dissatisfied with the certification of actual cost or portion of the actual cost properly allocable to prevention, control or reduction of air, water or noise pollution or solid waste, the applicant may appeal from the rejection as provided in ORS 468.110. The rejection or the certification is final and conclusive on all parties unless the applicant takes an appeal therefrom as provided in ORS 468.110 before the 30th day after notice was mailed by the commission.

(4) If the commission finds that a pollution control or solid waste facility or portion thereof, for which an application has been made under ORS 468.165, was erected, constructed or installed under a certificate of approval issued pursuant to ORS 468.175 and in accordance with the requirements of 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, and that the facility is necessary to satisfy the intents and purposes of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, ORS chapters 459 and 467 and this chapter and rules thereunder, it shall certify such facility. No determination of the proportion of the actual cost of the facility to be certified shall be made until receipt of the application. [redacted] A certificate under this section is effective for purposes of tax relief in accordance with ORS 307.405, 316.097 and 317.072 if erection, construction or installation of the facility was commenced prior to December 31, 1988. The commission shall attach to the front of each certificate a copy of the notice and election requirements imposed by subsection (5) of this section.

(5) A person receiving a certificate under this section shall make an irrevocable election to take the tax credit relief under ORS 316.097 or 317.072 or the ad valorem tax relief under ORS 307.405 and shall notify the commission, within 60 days after the receipt of such certificate, of his election. This election shall apply to the facility or facilities certified and shall bind all subsequent transferees. Failure to make a timely notification shall make the certificate ineffective for any tax relief under ORS 307.405, 316.097 and 317.072.

(6) If the person receiving the certificate is an electing small business corporation as defined in section 1371 of the Internal Revenue Code, and if the corporation elects to take tax credit relief, such election shall be on behalf of the corporation's shareholders. Each shareholder shall be entitled to take tax credit relief as provided in ORS 316.097, based on that shareholder's pro rata share of the certified cost of the facility.

(7) Certification under this section of a pollution control facility qualifying under subsection (1) of ORS 468.165 shall be granted for a period of 10 consecutive years which 10-year period shall begin with the tax year of the person in which the facility is certified under this section, except that if the person

elects ad valorem tax relief the provisions of ORS 307.405 shall apply.

(8) (a) A facility commenced prior to December 31, 1980, and qualifying under paragraph (c) of subsection (1) of ORS 468.165 shall be certified if it meets such requirements.

(b) For a facility commenced after December 31, 1980, and prior to December 31, 1983, the commission, in addition to, and not in lieu of, the requirements under paragraph (c) of subsection (1) of ORS 468.165, shall only certify such a facility if it meets one of the following conditions:

(A) That the facility is necessary to assist in solving a severe or unusual solid waste problem;

(B) That the facility will provide a new or different solution to a solid waste problem than has been previously used, or the facility is a significant modification and improvement of similar existing facilities; or

(C) That the department has recommended the facility as the most efficient or environmentally sound method of solid waste control.

(c) However, such a facility certified after December 31, 1983, shall be certified pursuant to the procedures, costs properly allocable and all other matters as if it were a facility subject to certification under paragraph (a) of subsection (1) of ORS 468.165.

[Formerly 449.635; 1974 s.s. c.37 §3; 1975 c.496 §4; 1977 c.795 §4]

468.175 Application for certification before construction; order granting or denying certification; hearing. (1) Any person proposing to apply for certification of a pollution control facility pursuant to ORS 468.165, before the commencement of erection, construction or installation of the facility, shall file a request for preliminary certification with the Department of Environmental Quality. The request shall be in a form prescribed by the department.

(2) Within 30 days of the receipt of such request, the department may require, as a condition precedent to issuance of a preliminary certificate of approval, the submission of plans and specifications. After examination thereof, the department may request corrections and revisions to the plans and specifications. The department may also require any other information necessary to determine whether the proposed construction is in accordance with the provisions of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, this chapter and ORS chapters 459 and 467 and applicable rules and standards adopted pursuant thereto.

(3) If the department determines that the proposed erection, construction or installation is in accordance with the provisions of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, this chapter and ORS chapters 459 and 467 and applicable rules or standards adopted pursuant thereto, it shall issue a preliminary certificate approving the erection, construction or installation. If the department determines that the erection, construction or installation does not comply with the provisions of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, this chapter and ORS chapters 459 and 467 and applicable rules or standards adopted pursuant thereto, the commission shall issue an order denying certification.

(4) If within 60 days of the receipt of plans, specifications or any subsequently requested revisions or corrections to the plans and specifications or any other information required pursuant to this section, the department fails to issue a preliminary certificate of approval and the commission fails to issue an order denying certification, the preliminary certificate shall be considered to have been issued. The construction must comply with the plans, specifications and any corrections or revisions thereto, if any, previously submitted.

(5) Within 20 days from the date of mailing of the order, any person against whom an order is directed pursuant to subsection (3) of this section may demand a hearing. The demand shall be in writing, shall state the grounds for hearing and shall be mailed to the director of the department. The hearing shall be conducted in accordance with the applicable provisions of ORS chapter 183.

[1973 c.831 §2; 1975 c.496 §5; 1977 c.795 §5]

468.180 Conditions for issuance of certificate under ORS 468.170. (1) No certification shall be issued by the commission pursuant to ORS 468.170 unless the facility, facilities or part thereof was erected, constructed or installed under a certificate of approval issued pursuant to ORS 468.175 and in accordance with the applicable provisions of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, this chapter and ORS chapters 459 and 467 and the applicable rules or standards adopted pursuant thereto.

(2) Nothing in this section or ORS 468.175 is intended to apply to erection, construction or installation of pollution control facilities begun before October 5, 1973.
[1973 c.831 §3; 1975 c.496 §6; 1977 c.795 §6]

468.185 Procedure to revoke certification. (1) Pursuant to the procedures for a contested case under ORS chapter 183, the commission may order the revocation of the certification issued under ORS 468.170 of any pollution control or solid waste facility, if it finds that:

(a) The certification was obtained by fraud or misrepresentation; or

(b) The holder of the certificate has failed substantially to operate the facility for the purpose of, and to the extent necessary for, preventing, controlling or reducing air, water or noise pollution or solid waste as specified in such certificate.

(2) As soon as the order of revocation under this section has become final, the commission shall notify the Department of Revenue and the county assessor of the county in which the facility is located of such order.

(3) If the certification of a pollution control or solid waste facility is ordered revoked pursuant to paragraph (a) of subsection (1) of this section, all prior tax relief provided to the holder of such certificate by virtue of such certificate shall be forfeited and the Department of Revenue or the proper county officers shall proceed to collect those taxes not paid by the certificate holder as a result of the tax relief provided to the holder under any provision of ORS 307.405, 316.097 and 317.072.

(4) If the certification of a pollution control or solid waste facility is ordered revoked pursuant to paragraph (b) of subsection (1) of this section, the certificate holder shall be denied any further relief provided under ORS 307.405, 316.097 or 317.072 in connection with such facility, as the case may be, from and after the date that the order of revocation becomes final.
[Formerly 449.645; 1975 c.496 §7; 1977 c.795 §7]

468.190 Allocation of costs to pollution control. (1) In establishing the portion of costs properly allocable to the prevention, control or reduction of air, water or noise pollution for facilities qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, the commission shall consider the following factors:

(a) If applicable, the extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

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

(c) If applicable, the alternative methods, equipment and costs for achieving the same pollution control objective.

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

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

(2) The portion of actual costs properly allocable shall be:

(a) Eighty percent or more.

(b) Sixty percent or more but less than 80 percent.

(c) Forty percent or more but less than 60 percent.

(d) Twenty percent or more but less than 40 percent.

(e) Less than 20 percent.
[Formerly 449.655; 1974 s.s. c.37 §4; 1977 c.795 §8]

STATE POLLUTION CONTROL BONDS

468.195 Issuance of bonds authorized. In order to provide funds for the purposes specified in Article XI-H of the Constitution of Oregon, the commission, with the approval of the State Treasurer, is authorized to issue and sell such general obligation bonds of the State of Oregon, of the kind and character and within the limits prescribed by Article XI-H of the Constitution of Oregon as, in the judgment of the commission, shall be necessary. The bonds shall be authorized by resolution duly adopted by a majority of the members of the commission at a regular or special meeting of the commission. The principal amount of the bonds outstanding at any one time, issued under authority of this section, shall not exceed $160 million par value.
[Formerly 449.672]

468.200 Form and content of bonds; refunding bonds. (1) At the request of the commission, the Attorney General shall prepare a form of direct, general obligation, interest-bearing coupon bonds of the State of Oregon to be sold in order to provide funds for

A-Engrossed

Senate Bill 139

Ordered by the Senate May 14
(Including Amendments by Senate May 14)

Ordered printed by the President of the Senate in conformance with presession filing rules and indicates neither advocacy nor opposition on the part of the President (at the request of Department of Environmental Quality)

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure.

[*Authorizes Environmental Quality Commission to waive certain procedural requirements for obtaining precertification approval for pollution control tax credits.*] **Redefines "pollution control facility" to include control of hazardous wastes or used oil. Specifies certain items to be excluded under the definition of "pollution control facility." Extends ability to apply for certificate as a pollution control facility to include those hazardous wastes or used oil facilities under construction on or after January 1, 1973. Specifies procedures to be followed in granting applications for such facilities. Permits waiver of application procedure in certain instances.**

A BILL FOR AN ACT

Relating to pollution control tax credits; creating new provisions; and amending ORS 468.155, 468.160, 468.165, 468.170, 468.175, 468.180 and 468.185.

Be It Enacted by the People of the State of Oregon:

Section 1. ORS 468.155 is amended to read:

468.155. (1) As used in ORS 468.155 to 468.190, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if a substantial purpose of such use, erection, construction or installation is the prevention, control or reduction of air, water or noise pollution or solid waste, **hazardous wastes or used oil** by:

(a) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468.700;

(b) The disposal or elimination of or redesign to eliminate air contaminants or air pollution or air contamination sources and the use of air cleaning devices as defined in ORS 468.275;

(c) The substantial reduction or elimination of or redesign to eliminate noise pollution or noise emission sources as defined by rule of the commission; or

(d) The use of a resource recovery process which obtains useful material or energy resources from material that would otherwise be solid waste as defined in ORS 459.005, **hazardous wastes as defined in ORS 459.410, or used oil as defined in ORS 468.850.** For the purposes of ORS 468.155 to 468.190, "solid waste facility" shall also include subsequent additions, made either to an already certified facility or to an operation which would have qualified as a facility but for the fact that it was erected, constructed or installed prior to January 1, 1973, which will increase the production or recovery of useful materials or energy over the amount being produced or recovered by the original facility whether or not the materials or energy produced or recovered are similar to

NOTE: Matter in **bold face** in an amended section is new; matter [*italic and bracketed*] is existing law to be omitted; complete new sections begin with SECTION.

those of the original facility.

(2) "Pollution control facility" or "facility" does not include air conditioners, septic tanks or other facilities for human waste, nor any property installed, constructed or used for the moving of sewage to the collecting facilities of a public or quasi-public sewerage system, nor any **distinct portion or portions of a** solid waste, **hazardous wastes or used oil** facility [*or portion or portions thereof whose substantial purpose is not for the direct utilization of materials as described in subparagraph (A) of paragraph (c) of subsection (1) of ORS 468.165.*] **which make an insignificant contribution to the purpose of utilization of solid waste, hazardous wastes or used oil. The following specific items shall be among those portions considered for exclusion hereunder: Office buildings and furnishings, parking lots and road improvements, landscaping, external lighting, company signs, artwork and automobiles.**

Section 2. ORS 468.160 is amended to read:

468.160. In the interest of the public peace, health and safety, it is the policy of the State of Oregon to assist in the prevention, control and reduction of air, water and noise pollution and solid waste, **hazardous wastes and used oil** in this state by providing tax relief with respect to Oregon facilities constructed to accomplish such prevention, control and reduction.

Section 3. ORS 468.165 is amended to read:

468.165. (1) Any person may apply to the commission for certification under ORS 468.170 of a pollution control facility or facilities or portion thereof erected, constructed or installed by him in Oregon if:

(a) The air or water pollution control facility was erected, constructed or installed on or after January 1, 1967.

(b) The noise pollution control facility was erected, constructed or installed on or after January 1, 1977.

(c) The solid waste, **hazardous wastes or used oil** facility was under construction on or after January 1, 1973, and if:

(A) The substantial purpose of the facility is to utilize material that would otherwise be solid waste as defined in ORS 459.005, **hazardous wastes as defined in ORS 459.410 or used oil as defined in ORS 468.850** by burning, mechanical process or chemical process or through the production, processing including presegregation or otherwise, or use of materials for their heat content or other forms of energy of or from the material, or the use of materials which have useful chemical or physical properties and which may be used for the same or other purposes, or materials which may be used in the same kind of application as its prior use without change in identity;

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

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

(D) The Oregon law regulating solid waste imposes standards [*more stringent than*] **at least substantially equivalent to the federal law** [*requires*].

(2) The applications shall be made in writing in a form prescribed by the department and shall contain information on the actual cost of the facility or facilities, a description of the materials incorporated therein, all machinery and equipment made a part thereof, the existing or proposed operational procedure thereof, and a statement of the purpose of prevention, control or reduction of air, water or noise pollution or solid waste, **hazardous wastes or used oil** served or to be served by the facility or facilities and, for a facility qualifying under

paragraph (a) or (b) of subsection (1) of this section, the portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution as set forth in subsection (2) of ORS 468.190.

(3) The director may require such further information as he considers necessary prior to issuance of a certificate.

Section 4. ORS 468.170 is amended to read:

468.170. (1) The commission shall act on an application for certification before the 120th day after the filing of the application under ORS 468.165. The action of the commission shall include certification of the actual cost of the facility and, for facilities qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, the portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution as set forth in subsection (2) of ORS 468.190. Each certificate shall bear a separate serial number for each such facility.

(2) If the commission rejects an application for certification, or certifies a lesser actual cost of the facility or a lesser portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution or solid waste, **hazardous wastes or used oil** than was claimed in the application for certification, the commission shall cause written notice of its action, and a concise statement of the findings and reasons therefor, to be sent by registered or certified mail to the applicant before the 120th day after the filing of the application. Failure of the commission to act constitutes rejection of the application.

(3) If the application is rejected for any reason, including the information furnished by the applicant as to the cost of the facility, or if the applicant is dissatisfied with the certification of actual cost or portion of the actual cost properly allocable to prevention, control or reduction of air, water or noise pollution or solid waste, **hazardous wastes or used oil**, the applicant may appeal from the rejection as provided in ORS 468.110. The rejection or the certification is final and conclusive on all parties unless the applicant takes an appeal therefrom as provided in ORS 468.110 before the 30th day after notice was mailed by the commission.

(4) If the commission finds that a pollution control or solid waste, **hazardous wastes or used oil** facility or portion thereof, for which an application has been made under ORS 468.165, was erected, constructed or installed [*under a certificate of approval issued pursuant to ORS 468.175 and*] 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 the facility is necessary to satisfy the intents and purposes of ORS [*448.305,*] 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, ORS chapters 459 and 467 and this chapter and rules thereunder, it shall certify such facility. No determination of the proportion of the actual cost of the facility to be certified shall be made until receipt of the application. Where one or more facilities constitute an operational unit, the commission may certify such facilities under one certificate. A certificate under this section is effective for purposes of tax relief in accordance with ORS 307.405, 316.097 and 317.072 if erection, construction or installation of the facility was commenced prior to December 31, 1988. The commission shall attach to the front of each certificate a copy of the notice and election requirements imposed by subsection (5) of this section.

(5) A person receiving a certificate under this section shall make an irrevocable election to take the tax credit relief under ORS 316.097 or 317.072 or the ad valorem tax relief under ORS 307.405 and shall notify the commission, within 60 days after the receipt of such certificate, of his election. This election shall apply to the

facility or facilities certified and shall bind all subsequent transferees. Failure to make a timely notification shall make the certificate ineffective for any tax relief under ORS 307.405, 316.097 and 317.072.

(6) If the person receiving the certificate is an electing small business corporation as defined in section 1371 of the Internal Revenue Code, and if the corporation elects to take tax credit relief, such election shall be on behalf of the corporation's shareholders. Each shareholder shall be entitled to take tax credit relief as provided in ORS 316.097, based on that shareholder's pro rata share of the certified cost of the facility.

(7) Certification under this section of a pollution control facility qualifying under subsection (1) of ORS 468.165 shall be granted for a period of 10 consecutive years which 10-year period shall begin with the tax year of the person in which the facility is certified under this section, except that if the person elects ad valorem tax relief the provisions of ORS 307.405 shall apply.

(8) (a) A facility commenced prior to December 31, 1980, and qualifying under paragraph (c) of subsection (1) of ORS 468.165 shall be certified if it meets such requirements.

(b) For a facility commenced after December 31, 1980, and prior to December 31, 1983, the commission, in addition to, and not in lieu of, the requirements under paragraph (c) of subsection (1) of ORS 468.165, shall only certify such a facility if it meets one of the following conditions:

(A) That the facility is necessary to assist in solving a severe or unusual solid waste, **hazardous wastes or used oil** problem;

(B) That the facility will provide a new or different solution to a solid waste, **hazardous wastes or used oil** problem than has been previously used, or the facility is a significant modification and improvement of similar existing facilities; or

(C) That the department has recommended the facility as the most efficient or environmentally sound method of solid waste, **hazardous wastes or used oil** control.

(c) However, such a facility certified after December 31, 1983, shall be certified pursuant to the procedures, costs properly allocable and all other matters as if it were a facility subject to certification under paragraph (a) of subsection (1) of ORS 468.165.

"Section 5. ORS 468.175 is amended to read:

"468.175. (1) Any person proposing to apply for certification of a pollution control facility pursuant to ORS 468.165, before the commencement of erection, construction or installation of the facility, shall file a request for preliminary certification with the Department of Environmental Quality. The request shall be in a form prescribed by the department. **For facilities constructed on or after the effective date of this 1979 Act, the commission may waive the filing of the application if it finds the filing inappropriate because special circumstances render the filing unreasonable and if it finds such facility would otherwise qualify for tax credit certification pursuant to ORS 468.150 to 468.190.**

(2) Within 30 days of the receipt of such request, the department may require, as a condition precedent to issuance of a preliminary certificate of approval, the submission of plans and specifications. After examination thereof, the department may request corrections and revisions to the plans and specifications. The department may also require any other information necessary to determine whether the proposed construction is in accordance with the provisions of ORS [*448.305,*] 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, this chapter and ORS chapters 459 and 467 and applicable rules and standards adopted pursuant thereto.

(3) If the department determines that the proposed erection, construction or installation is in accordance with the provisions of ORS [*448.305,*] 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, this chapter and ORS *chapters 459 and 467 and applicable rules or standards adopted pursuant thereto, it shall issue a preliminary certificate approving the erection, construction or installation. If the department determines that the erection, construction or installation does not comply with the provisions of ORS [*448.305,*] 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, this chapter and ORS chapters 459 and 467 and applicable rules or standards adopted pursuant thereto, the commission shall issue an order denying certification.

"(4) If within 60 days of the receipt of plans, specifications or any subsequently requested revisions or corrections to the plans and specifications or any other information required pursuant to this section, the department fails to issue a preliminary certificate of approval and the commission fails to issue an order denying certification, the preliminary certificate shall be considered to have been issued. The construction must comply with the plans, specifications and any corrections or revisions thereto, if any, previously submitted.

"(5) Within 20 days from the date of mailing of the order, any person against whom an order is directed pursuant to subsection (3) of this section may demand a hearing. The demand shall be in writing, shall state the grounds for hearing and shall be mailed to the director of the department. The hearing shall be conducted in accordance with the applicable provisions of ORS [*chapter 183*] **183.310 to 183.500.**

"Section 6. ORS 468.180 is amended to read:

"468.180. (1) No certification shall be issued by the commission pursuant to ORS 468.170 unless the facility, facilities or part thereof was erected, constructed or installed [*under a certificate of approval issued pursuant to*] **in accordance with the requirements of** ORS 468.175 and in accordance with the applicable provisions of ORS [*448.305,*] 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, this chapter and ORS chapters 459 and 467 and the applicable rules or standards adopted pursuant thereto.

"(2) Nothing in this section or ORS 468.175 is intended to apply to erection, construction or installation of pollution control facilities begun before October 5, 1973.

"Section 7. ORS 468.185 is amended to read:

"468.185. (1) Pursuant to the procedures for a contested case under ORS chapter 183, the commission may order the revocation of the certification issued under ORS 468.170 of any pollution control or solid waste, **hazardous wastes or used oil** facility, if it finds that:

"(a) The certification was obtained by fraud or misrepresentation; or

"(b) The holder of the certificate has failed substantially to operate the facility for the purpose of, and to the extent necessary for, preventing, controlling or reducing air, water or noise pollution or solid waste, **hazardous wastes or used oil** as specified in such certificate.

"(2) As soon as the order of revocation under this section has become final, the commission shall notify the Department of Revenue and the county assessor of the county in which the facility is located of such order.

"(3) If the certification of a pollution control or solid waste, **hazardous wastes or used oil** facility is ordered revoked pursuant to paragraph (a) of subsection (1) of this section, all prior tax relief provided to the holder of such certificate by virtue of such certificate shall be forfeited and the Department of Revenue or the proper

county officers shall proceed to collect those taxes not paid by the certificate holder as a result of the tax relief provided to the holder under any provision of ORS 307.405, 316.097 and 317.072.

"(4) If the certification of a pollution control or solid waste, hazardous wastes or used oil facility is ordered revoked pursuant to paragraph (b) of subsection (1) of this section, the certificate holder shall be denied any further relief provided under ORS 307.405, 316.097 or 317.072 in connection with such facility, as the case may be, from and after the date that the order of revocation becomes final.

"SECTION 8. The amendments to ORS 468.155, 468.160, 468.165, 468.170 and 468.185 by sections 1 to 4 and 7 of this Act that relate to pollution control facilities for hazardous wastes and used oil shall not apply to erection, construction or installation of such facilities begun before the effective date of this Act.".

equipment, machinery or fixtures erected upon, under, above or affixed to such building or structure to facilitate such storage.

(4) Subsections (1), (2) and (3) of this section apply to assessment years beginning on and after January 1, 1972, but shall not apply to assessment years beginning on and after January 1, 1982.
[1971 c.141 §§ 1, 2]

(Pollution Control Facilities)

[redacted] A pollution control facility or facilities which have been constructed in accordance with the requirements of subsection (1) of ORS 468.165, and have been certified by the Environmental Quality Commission pursuant to ORS 468.170 are exempt to the extent of the highest percentage figure certified by the Environmental Quality Commission as the portion of the actual cost properly allocable to the prevention, control or reduction of pollution. The exemption shall be allowed only if the taxpayer is a corporation organized under ORS chapter 61 or 62, or any predecessor to ORS chapter 62 relating to incorporation of cooperative associations, or is a subsequent transferee of such a corporation. If the subsequent transferee is organized under other than ORS chapter 61 or 62, the exemption shall only be allowed if the transfer occurs after the expiration of five years from the date of original certification by the commission.

(2) To qualify for the ad valorem tax relief:

(a) The pollution control facility must be erected, constructed or installed in connection with the trade or business conducted by the taxpayer on Oregon property owned or leased by said taxpayer.

(b) The taxpayer must be the owner of the trade or business that utilizes Oregon property requiring a pollution control facility to prevent or minimize pollution or a person who, as a lessee under a written lease or pursuant to a written agreement, conducts the trade or business that operates or utilizes such property and who by the terms of such lease or agreement is obliged to pay the ad valorem taxes on such property. As used in this subsection, "owner" includes a contract purchaser.

(3) The ad valorem exemption of a facility shall expire, in any event, 20 years from the date of its first certification for any owner or lessee by the Environmental Quality Commission.

(4) Upon any sale, exchange, or other disposition of a facility, notice thereof shall be given to the Environmental Quality Commission who shall revoke the certification covering such facility as of the date of such disposition. The transferee may apply for a new certificate under ORS 468.170, but the number of years of ad valorem tax exemption that may be claimed by the transferee is the remainder of the exemption period specified in subsection (3) of this section.

(5) If the facility also functions to prevent pollution from operations conducted on other property owned or leased by the taxpayer the Environmental Quality Commission shall state in its certification of the facility the percentage of the facility used to prevent pollution from such qualifying trade or business conducted on such qualifying property. The exemption from ad valorem taxes under this section shall be limited to such percentage of the value of the facility.
[1967 c.592 §13; 1969 c.340 §1; 1971 c.678 §1; 1973 c.831 §7; 1977 c.795 §9]

Note: Subsection (3), section 14 and section 15, chapter 795, Oregon Laws 1977, provide:

Sec. 14. (3) The amendments to ORS 307.405 by section 9 of this Act apply on or after January 1, 1977, to a facility under construction on or after January 1, 1975, by a corporation organized under ORS chapter 61 or 62 or under any predecessor to ORS chapter 62 relating to incorporation of cooperative associations. The amendments to ORS 307.405 do not apply to a facility commenced prior to December 31, 1980, by a person other than a corporation described in the preceding sentence if the facility is certified prior to December 31, 1982, and ORS 307.405 as it reads the day before the effective date of amendments made by section 9 of this Act shall apply thereto.

Sec. 15. Nothing in this Act relieves a person or taxpayer of any obligation with respect to a tax, fee, fine or other charge, interest, penalty, forfeiture or other liability, duty or obligation accruing under the law repealed by this Act. After the operative date of such repeals, the Department of Revenue may undertake the collection or enforcement of such tax, fee, fine, charge, interest, penalty, forfeiture or other liability, duty or obligation.

307.420 Necessity of filing claim and certificate to secure exemption; annual statements of ownership. Before any exemption from taxation is allowed under ORS 307.405, the person claiming the exemption shall file with the county assessor a written claim for such exemption prepared on a form prescribed by the Department of Revenue and furnished by the assessor, and shall file with the assessor with his first claim for exemption the certificate issued by the Environmental

(A) The amount of the credit which has been allowed under this section; and

(B) The amount of the credit which would have been allowed under this section if the useful life of the property for which a credit was allowed had been estimated for a period commensurate with a period ending next preceding the date of disposition of such property.

[1977 c.839 §8]

[redacted] (1) A credit against taxes imposed by this chapter for taxpayers owning a pollution control facility or facilities certified under ORS 468.170 shall be allowed if the taxpayer has not claimed an exemption therefor under ORS 307.405.

(2) (a) For a facility qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, and having a useful life of 10 years or longer, the maximum credit allowed in any one tax year shall be the lesser of the tax liability of the taxpayer or the following portion of the cost of the facility:

(A) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 80 percent or more, five percent of the cost of the facility.

(B) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 60 percent or more and less than 80 percent, four percent of the cost of the facility.

(C) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 40 percent or more and less than 60 percent, three percent of the cost of the facility.

(D) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 20 percent or more and less than 40 percent, two percent of the cost of the facility.

(E) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is less than 20 percent, one percent of the cost of the facility.

(b) For a facility qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, and having a useful life of less than 10 years, the maximum credit allowed in any one taxable year shall be the lesser of the tax liability of the taxpayer or the following:

(A) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 80 percent or more, 50 percent of the cost of the facility, divided by the number of years of useful life of the facility.

(B) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 60 percent or more and less than 80 percent, 40 percent of the cost of the facility, divided by the number of years of useful life of the facility.

(C) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 40 percent or more and less than 60 percent, 30 percent of the cost of the facility, divided by the number of years of useful life of the facility.

(D) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 20 percent or more and less than 40 percent, 20 percent of the cost of the facility, divided by the number of years of useful life of the facility.

(E) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is less than 20 percent, 10 percent of the cost of the facility, divided by the number of years of useful life of the facility.

(c) For facilities having a useful life of less than 10 years and for which some portion of the maximum total credit is allowed or allowable in tax years beginning on or after January 1, 1977, such remaining credit shall be prorated over the remaining useful life of the property under administrative rules to be prepared by the department.

(3) (a) For a facility qualifying under paragraph (c) of subsection (1) of ORS 468.165, and having a useful life of 10 years or longer, the maximum credit allowed in any one tax year shall be five percent of the cost of the facility or facilities, but shall not exceed the tax liability of the taxpayer.

(b) For a facility qualifying under paragraph (c) of subsection (1) of ORS 468.165, and having a useful life of less than 10 years, the maximum credit allowed in any one tax year shall be 50 percent of the cost of the facility divided by the number of years of useful life

of the facility, but shall not exceed the tax liability of the taxpayer.

(4) To qualify for the credit the pollution control facility must be erected, constructed or installed in accordance with the provisions of subsection (1) of ORS 468.165.

(5) (a) The taxpayer who is allowed the credit must be the owner of the trade or business that utilizes Oregon property requiring a pollution control facility to prevent or minimize pollution or a person who, as a lessee or pursuant to an agreement, conducts the trade or business that operates or utilizes such property. As used in this paragraph, "owner" includes a contract purchaser; and

(b) The facility must be owned or leased during the tax year by the taxpayer claiming the credit and must have been in use and operation during said tax year.

(6) Regardless of when the facility is erected, constructed or installed, a credit under this section may be claimed by a taxpayer:

(a) For a facility qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, only in those tax years which begin on or after January 1, 1967.

(b) For a facility qualifying under paragraph (c) of subsection (1) of ORS 468.165, in those tax years which begin on or after January 1, 1973.

(7) For a facility qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, the maximum total credit allowable shall not exceed:

(a) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 80 percent or more, 50 percent of the cost of such facility or facilities.

(b) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 60 percent or more and less than 80 percent, 40 percent of the cost of such facility or facilities.

(c) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 40 percent or more and less than 60 percent, 30 percent of the cost of such facility or facilities.

(d) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 20 percent or more and less than 40 percent, 20 percent of the cost of such facility or facilities.

(e) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is less than 20 percent, 10 percent of the cost of such facility or facilities.

(8) For a facility qualifying under paragraph (c) of subsection (1) of ORS 468.165, the maximum total credit allowable shall not exceed 50 percent of the cost of such facility.

(9) The credit provided by this section is not in lieu of any depreciation or amortization deduction for the facility to which the taxpayer otherwise may be entitled under this chapter for such year.

(10) Upon any sale, exchange, or other disposition of a facility, notice thereof shall be given to the Environmental Quality Commission who shall revoke the certification covering such facility as of the date of such disposition. The transferee may apply for a new certificate under ORS 468.170, but the tax credit available to such transferee shall be limited to the amount of credit not claimed by the transferor.

(11) Any tax credit otherwise allowable under this section which is not used by the taxpayer in a particular year may be carried forward and offset against the taxpayer's tax liability for the next succeeding tax year. Any credit remaining unused in such next succeeding tax year may be carried forward and used in the second succeeding tax year, and likewise, any credit not used in that second succeeding tax year may be carried forward and used in the third succeeding tax year, but may not be carried forward for any tax year thereafter. Credits may be carried forward to and used in a tax year beyond the years specified in ORS 468.170.

(12) The taxpayer's adjusted basis for determining gain or loss shall be further decreased by any tax credits allowed under this section.

(13) If the taxpayer is a shareholder of a Subchapter S corporation that has elected to take tax credit relief pursuant to subsection (6) of ORS 468.170, the credit shall be computed using the shareholder's pro rata share of the corporation's certified cost of the facility. In all other respects, the allowance and effect of the tax credit shall apply to the corporation as otherwise provided by law.

[See 316.480; 1973 c.831 §8; 1977 c.795 §11; 1977 c.866 §10]

316.102 Credit for political contributions. (1) Unless a taxpayer has claimed a deduction for a political contribution on his federal tax return for the taxable year, a credit against taxes shall be allowed for voluntary contributions in money made in the taxable year:

(a) To a national political party as defined in section 41 of the Internal Revenue Code or to a committee thereof or to a minor political party as defined in ORS 249.710; or

(b) To or for the use of a candidate for federal, state or local elective office whose name is listed on a primary, general or special election ballot in this state, or who has filed, or on behalf of whom has been filed in this state a declaration of candidacy or a certificate of nomination as provided by law or a copy of his petition for nomination filed pursuant to subsection (2) of ORS 249.020; or

(c) To any trust, committee, association or organization (whether or not incorporated) organized and operated exclusively for any part or all of the following purposes:

(A) Influencing, or attempting to influence, the nomination or election of one or more individuals who are candidates for nomination or election to any federal, state or local elective public office to be voted upon within this state if used by the trust, committee, association or organization to further the candidacy of an individual or individuals for nomination or election to such office; or

(B) Supporting or opposing ballot measures or questions to be voted upon within this state if the trust, committee, association or organization has certified the name of its political treasurer to the filing officer in the manner provided by law.

(2) The credit allowed by subsection (1) of this section shall be the lesser of:

(a) One-half of the total contribution, not to exceed $25 on a separate return; one-half of the total contribution, not to exceed $50 on a joint return; or

(b) The tax liability of the taxpayer.

(3) Tax claim for tax credit shall be substantiated by submission, with the tax return, of official receipts of the candidate, agent, trust, committee, association or organization to whom contribution was made.

[1969 c.432 §2; 1973 c.119 §3; 1975 c.177 §1; 1977 c.268 §1]

316.105 [1953 c.304 §14; 1953 c.552 §5; repealed by 1969 c.493 §99]

316.106 [1967 c.274 §7; repealed by 1969 c.493 §99]

316.107 Federal tax credits allowable only as specified. No credits applied directly to the income tax calculated for federal purposes pursuant to the Internal Revenue Code shall be applied in calculating the tax due under this chapter except those applicable under ORS 316.082, 316.087 and 316.292.

[1969 c.493 §20; 1973 c.402 §19]

316.108 [1967 c.118 §2; repealed by 1969 c.493 §99]

316.110 [1953 c.304 §15; 1953 c.552 §6; 1957 c.582 §1; 1961 c.506 §1; 1963 c.253 §1; repealed by 1969 c.493 §99]

316.111 [1965 c.360 §2; repealed by 1969 c.493 §99]

316.112 [1959 c.211 §2; 1963 c.627 §5 (referred and rejected); repealed by 1969 c.493 §99]

316.113 [1967 c.61 §2; repealed by 1969 c.493 §99]

316.114 [1967 c.449 §2; repealed by 1969 c.493 §99]

316.115 [1953 c.304 §16; 1959 c.555 §1; subsection (4) derived from 1959 c.555 §2; repealed by 1969 c.493 §99]

316.116 Credit for alternative energy device. (1) A resident individual shall be allowed a credit against the taxes otherwise due under this chapter, based upon the cost of the alternative energy device which has been certified under ORS 469.160 to 469.180.

(2) To qualify for the credit under this section:

(a) The alternative energy device must be constructed, installed and operated in accordance with the provisions of ORS 469.160 to 469.180 and a certificate issued thereunder;

(b) The taxpayer who is allowed the credit must be the owner or contract purchaser of the dwelling served by the alternative energy device; and

(c) The taxpayer must claim the credit in the tax year during which the alternative energy device which has been certified under ORS 469.160 to 469.180 is placed in service.

(3) The taxpayer who is allowed the credit shall not be entitled to more than one credit under this section in any one taxable year.

(4) The credit allowed under this section shall not exceed the lesser of:

(a) Twenty-five percent of the actual cost of the acquisition, construction and installation of the alternative energy device; or

(b) $1,000.

(5) A credit under this section may be claimed by a taxpayer for an alternative energy device in those tax years which begin on or after January 1, 1978, but prior to January 1, 1985.

(A) The number of full-time employes employed in Oregon by the qualified employer in Oregon as of the last day of its taxable year during which the credit is applied for, over

(B) The nearest whole number determined by multiplying the number of full-time employes employed by the qualified employer in Oregon as of the last day of its previous taxable year by a coefficient of 1.03.

(b) For employers not having a taxable year on or before December 31, 1976, or for employers not having any employes in the taxable year ending on or before December 31, 1976, the increase in the number of full-time employes equals the excess of:

(A) The number of full-time employes employed by the qualified employer in Oregon as of the last day of its taxable year during which the credit is applied for, over

(B) For the first taxable year for which a credit is allowed under this Act, the nearest whole number determined by multiplying the number of full-time employes employed in Oregon as of the last day of the employer's first taxable year in which it had any employes by a coefficient of 1.00, or, for all subsequent taxable years for which a credit is allowed under this Act, the nearest whole number determined by multiplying the number of full-time employes employed in Oregon as of the last day of the employer's previous taxable year by a coefficient of 1.02.

Sec. 3. There shall be allowed to qualified employers a credit against taxes otherwise due under ORS chapters 316 and 317 for the increase in the number of qualified full-time employes not to exceed the amount of the increase in the number of full-time employes calculated as provided in subsection (3) of section 2 of this Act. The amount of the credit for each qualified employe is determined by multiplying $50 times the number of full months the qualified full-time employe has been employed by a qualified employer. The credit in any year for any qualified employe shall not exceed $500. A credit under this section shall not be allowed to a qualified employer for the amount of the increase in the number of full-time employes which is due to the hiring of an employe who was employed by such qualified employer immediately prior to receiving unemployment insurance benefits under ORS chapter 657 or workers' compensation under ORS chapter 656. This credit applies to taxable years beginning on or after July 1, 1977, and before January 1, 1982.

317.071 Weatherization loan interest credit for commercial lending institutions. A credit against taxes otherwise due under this chapter for the taxable year shall be allowed commercial lending institutions in an amount equal to the difference between:

(1) The maximum amount of interest allowed to be charged during the taxable year under section 6, chapter 887, Oregon Laws 1977, for loans made prior to January 1, 1982, by the lending institution to space-heating customers for the purpose of financing weatherization services; and

(2) The amount of interest which would have been charged during the taxable year by the lending institution for such loans at an annual interest rate which is the lesser of the following:

(a) The average interest rate charged by the commercial lending institution for home improvement loans made during the calendar year immediately preceding the year in which the loans for weatherization services are made; or

(b) Twelve percent.

[1977 c.887 §8]

Note: Section 9, chapter 887, Oregon Laws 1977, provides:

Sec. 9. Section 8 of this Act applies with respect to taxable years beginning on and after January 1, 1977.

[redacted] (1) A credit against taxes imposed by this chapter for taxpayers owning a pollution control facility or facilities certified under ORS 468.170 shall be allowed if the taxpayer has not claimed an exemption therefor under ORS 307.405.

(2) (a) For a facility qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, and having a useful life of 10 years or longer, the maximum credit allowed in any one taxable year shall be the lesser of the tax liability of the taxpayer or the following portion of the cost of the facility:

(A) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 80 percent or more, five percent of the cost of the facility.

(B) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 60 percent or more and less than 80 percent, four percent of the cost of the facility.

(C) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 40 percent or more and less than 60 percent, three percent of the cost of the facility.

(D) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 20 percent or more and less than 40 percent, two percent of the cost of the facility.

(E) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise

pollution is less than 20 percent, one percent of the cost of the facility.

(b) For a facility qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, and having a useful life of less than 10 years, the maximum credit allowed in any one taxable year shall be the lesser of the tax liability of the taxpayer or the following:

(A) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 80 percent or more, 50 percent of the cost of the facility, divided by the number of years of useful life of the facility.

(B) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 60 percent or more and less than 80 percent, 40 percent of the cost of the facility, divided by the number of years of useful life of the facility.

(C) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 40 percent or more and less than 60 percent, 30 percent of the cost of the facility, divided by the number of years of useful life of the facility.

(D) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 20 percent or more and less than 40 percent, 20 percent of the cost of the facility, divided by the number of years of useful life of the facility.

(E) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is less than 20 percent, 10 percent of the cost of the facility, divided by the number of years of useful life of the facility.

(c) For facilities having a useful life of less than 10 years and for which some portion of the maximum total credit is allowed or allowable in tax years beginning on or after January 1, 1977, such remaining credit shall be prorated over the remaining useful life of the property under administrative rules to be prepared by the department.

(3) (a) For a facility qualifying under paragraph (c) of subsection (1) of ORS 468.165, and having a useful life of 10 years or longer, the maximum credit allowed in any one tax year shall be five percent of the cost of the facility, but shall not exceed the tax liability of the taxpayer.

(b) For a facility qualifying under paragraph (c) of subsection (1) of ORS 468.165, and having a useful life of less than 10 years, the maximum credit allowed in any one tax year shall be 50 percent of the cost of the facility divided by the number of years of useful life of the facility, but shall not exceed the tax liability of the taxpayer.

(4) To qualify for the credit the pollution control facility must be erected, constructed or installed in accordance with the provisions of subsection (1) of ORS 468.165.

(5) (a) The taxpayer who is allowed the credit must be the owner of the trade or business that utilizes Oregon property requiring a pollution control facility to prevent or minimize pollution or a person who, as a lessee or pursuant to an agreement, conducts the trade or business that operates or utilizes such property. As used in this paragraph, "owner" includes a contract purchaser; and

(b) The facility must be owned or leased during the tax year by the taxpayer claiming the credit and must have been in use and operation during said tax year.

(6) Regardless of when the facility is erected, constructed or installed, a credit under this section may be claimed by a taxpayer:

(a) For a facility qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, only in those tax years which begin on or after January 1, 1967.

(b) For a facility qualifying under paragraph (c) of subsection (1) of ORS 468.165, only in those tax years which begin on or after January 1, 1973.

(7) For a facility qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, the maximum total credit allowable shall not exceed:

(a) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 80 percent or more, 50 percent of the cost of such facility or facilities.

(b) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 60 percent or more and less than 80 percent, 40 percent of the cost of such facility or facilities.

(c) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 40 percent or more and less than

60 percent, 30 percent of the cost of such facility or facilities.

(d) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is 20 percent or more and less than 40 percent, 20 percent of the cost of such facility or facilities.

(e) If the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution is less than 20 percent, 10 percent of the cost of such facility or facilities.

(8) For a facility qualifying under paragraph (c) of subsection (1) of ORS 468.165, the maximum total credit allowable shall not exceed 50 percent of the cost of the facility.

(9) The credit provided by this section is not in lieu of any depreciation or amortization deduction for the facility to which the taxpayer otherwise may be entitled under this chapter for such year.

(10) Upon any sale, exchange, or other disposition of facility, notice thereof shall be given to the Environmental Quality Commission who shall revoke the certification covering such facility as of the date of such disposition. The transferee may apply for a new certificate under ORS 468.170, but the tax credit available to such transferee shall be limited to the amount of credit not claimed by the transferor.

(11) Any tax credit otherwise allowable under this section which is not used by the taxpayer in a particular year may be carried forward and offset against the taxpayer's tax liability for the next succeeding tax year. Any credit remaining unused in such next succeeding tax year may be carried forward and used in the second succeeding tax year, and likewise, any credit not used in that second succeeding tax year may be carried forward and used in the third succeeding tax year, but may not be carried forward for any tax year thereafter. Credits may be carried forward to and used in a tax year beyond the years specified in ORS 468.170.

(12) The taxpayer's adjusted basis for determining gain or loss shall not be further decreased by any tax credits allowed under this section.

[1967 c.592 §9; 1969 c.340 §3; 1973 c.831 §9; 1977 c.795 §12; 1977 c.866 §11]

Note: Sections 14 and 15, chapter 795, Oregon Laws 1977. provide:

Sec. 14. (1) The deletion of paragraph (a) of subsection (7) of ORS 316.068 by section 10 of this Act and the amendments to ORS 316.097 and 317.072 by sections 11 and 12 of this Act apply to tax years beginning on or after January 1, 1977.

(2) The deletion of paragraph (b) of subsection (7) of ORS 316.068 by section 10 of this Act and the amendment to ORS 317.220 by section 13 of this Act are applicable as to property sold or disposed of in taxable years beginning on or after January 1, 1977.

(3) The amendments to ORS 307.405 by section 9 of this Act apply on or after January 1, 1977, to a facility under construction on or after January 1, 1975, by a corporation organized under ORS chapter 61 or 62 or under any predecessor to ORS chapter 62 relating to incorporation of cooperative associations. The amendments to ORS 307.405 do not apply to a facility commenced prior to December 31, 1980, by a person other than a corporation described in the preceding sentence if the facility is certified prior to December 31, 1982, and ORS 307.405 as it reads the day before the effective date [October 4, 1977] of amendments made by section 9 of this Act shall apply thereto.

Sec. 15. Nothing in this Act relieves a person or taxpayer of any obligation with respect to a tax, fee, fine or other charge, interest, penalty, forfeiture or other liability, duty or obligation accruing under the law repealed by this Act. After the operative date of such repeals, the Department of Revenue may undertake the collection or enforcement of such tax, fee, fine, charge, interest, penalty, forfeiture or other liability, duty or obligation.

317.073 [1959 c.631 §6; repealed by 1969 c.520 §49]

317.074 [1955 c.592 §2; 1957 c.607 §4; subsection (5) derived from 1957 c.607 §11 and 1957 s.s. c.5 §1; repealed by 1969 c.520 §49]

310.075 [Repealed by 1955 c.592 §4]

317.076 Tax credit for domestic insurers. A credit against taxes imposed by this chapter shall be allowed domestic insurers for the gross premium tax paid on fire insurance premiums in accordance with ORS 731.820.
[1969 c.600 §9]

317.077 Qualified economic development investment credit. (1) A credit against the taxes otherwise due under this chapter, based upon the amount of the qualified investment which has been certified under ORS 280.610 to 280.670, shall be allowed.

(2) To qualify for the credit under this section:

(a) The qualified investment must be made in accordance with the provisions of ORS 280.610 to 280.670 and the rules adopted thereunder and a certificate issued thereunder;

(b) The taxpayer who is allowed the credit must be the owner or contract purchaser of the trade or business that makes the qualified investment, or a person who, as a lessee or pursuant to an agreement, conducts the trade

POLLUTION CONTROL FACILITIES

314.250 Federal grants or tax credits for pollution control facility to be offset against state income or excise tax credits. If a taxpayer obtains grants or tax credits from the Federal Government, other than investment credits granted under section 46 of the Internal Revenue Code of 1954, in connection with a pollution control facility which has been certified by the Environmental Quality Commission, the income or excise tax credits which such taxpayer would be entitled to after any such grant or credit has been made available to or received by such taxpayer, shall be offset or reduced by such federal grants or tax credits, dollar for dollar. Taxpayers applying for such grants shall notify the Department of Revenue of each such application, and of the receipt of any such grant or tax credits. Notification shall be made in the taxpayer's next Oregon income or excise tax return.
[1967 c.592 s.18]

314.255 Collection of taxes due by reason of revocation of certification of pollution control facility. (1) Upon receipt of notice of the revocation of a certification of a pollution control facility pursuant to subsection (1) of ORS 468.185, the Department of Revenue immediately shall collect any taxes due by reason of such revocation, and shall have the benefit of all laws of this state pertaining to the collection of income and excise taxes. No assessment of such taxes shall be necessary and no statute of limitation shall preclude the collection of such taxes.

(2) No tax relief shall be allowed under ORS 307.405, 316.092 or 317.072 for any pollution control facility constructed or used by or for the benefit of any governmental or quasi-governmental body or public corporation or form thereof.
[1967 c.592 ss.16, 17; 1969 c.493 s.83]

METHODS OF ACCOUNTING AND REPORTING INCOME

314.275 Adjustments required by changes in methods of accounting. (1) In computing a taxpayer's taxable income for any tax year (referred to in this section as the "year of the change"), under any law imposing taxes upon or measured by net income and administered by the Department of Revenue, if such computation is under a method of accounting different from the method under which the taxpayer's taxable income for the preceding tax year was computed, then there shall be taken into account those adjustments which are determined to be necessary solely by reason of the change in order to prevent amounts from being duplicated or omitted. The adjustments allowed by this section are to be made regardless of whether a change is requested by the taxpayer or required by the department or required by the enactment of the Personal Income Tax Act of 1969, and, if required, whether it is regarded as a change in the taxpayer's method of keeping books or a change in the method of reporting.

(2) (a) If the method of accounting from which the change is made was used by the taxpayer in computing taxable income for the two tax years preceding the year of the change, and the increase in taxable income for the year of change which results solely by reason of the adjustments required by subsection (1) of this section exceeds $1,000, then the tax attributable to such increase in taxable income shall not be greater than the aggregate of the taxes which would result if one-third of such increase were included in taxable income for the year of the change and one-third of such increase were included for each of the two preceding tax years.

(b) If the increase in taxable income for the year of the change which results solely by reason of the adjustments required by subsection (1) of this section exceeds $1,000, and the taxpayer establishes his or its taxable income (under the new method of accounting) for one or more tax years consecutively preceding the tax year of the change for which the taxpayer in computing taxable income used the method of accounting from which the change is made, then the tax attributable to such increase in taxable income shall not be greater than the net increase in taxes which would result if the adjustments required by subsection (1) of this section were allocated to the tax year or years specified in this paragraph to which they are properly allocable under the new method of accounting and the balance of the adjustments required by subsection (1) of this section was allocated to the tax year of the change.

(3) In the case of any change described in subsection (1) of this section, the taxpayer may, in such manner and subject to such conditions as the department may by regulations prescribe, take the adjustments required by subsection (1) of this section into account in computing the tax imposed for

A-Engrossed

House Bill 2843

Ordered by the House June 14
(Including Amendments by House May 28 and June 14)

Sponsored by Representative FAWBUSH, Senator BROWN, Representatives BYERS, FADELEY, KAFOURY, MASON, Senator KAFOURY

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure.

Declares policy. Defines terms relevant to Act. Specifies preferences to be given for determining eligibility of energy conservation facilities for tax credits. Provides that the total of all costs of energy conservation facilities certified for tax credits in any calendar year shall not exceed $30 million. [*Specifies that*] **Specifies that not less than $5 million of the $30 million annual certification limit shall be allocated to facilities having a certified cost of $100,000 or less for any facility. Provides that in respect to the balance of the certification limit** the maximum cost certified for any facility shall not exceed $10 million. **Permits director to increase such limit for previously certified facilities if applications certified in any one calendar year do not total $25 million.** Permits application for preliminary certification in specified situations. Permits Director of Department of Energy to require submission of plans and specifications of proposed facility. Prohibits issuance of certification unless facility was constructed or installed under preliminary certificate. Permits application for final certification in specified situations. Requires final certification to obtain tax credits provided under this Act. Permits director to order revocation of certificate. Allows tax credit based upon the certified cost of an energy conservation facility during the time the facility is certified under provisions of this Act. Limits tax credit for first two years of operation to 10 percent of the certified cost, but not exceeding the tax liability of the taxpayer. Specifies that credits for the next three years shall be five percent of certified costs. Limits maximum total credit allowable to 35 percent of certified costs. Applies to tax years beginning on or after January 1, 1980. Permits carry-over of unused credits to offset tax liability in the next succeeding tax year. Prohibits tax credit for facilities constructed or used by governmental body or public corporation. Prohibits tax credit under this Act for facilities now receiving tax credit for pollution control facility or alternative energy device.

A BILL FOR AN ACT

Relating to taxation.

Be It Enacted by the People of the State of Oregon:

SECTION 1. Sections 2 to 10 of this Act are added to and made a part of ORS 469.010 to 469.180.

SECTION 2. In the interest of the public health, safety and welfare, it is the policy of the State of Oregon to encourage the conservation of electricity, petroleum and natural gas by providing tax relief for Oregon facilities that conserve energy resources or meet energy requirements through the use of renewable resources.

SECTION 3. As used in sections 2 to 10 of this 1979 Act:

(1) "Cost" means the capital costs and expenses necessarily incurred in the acquisition, erection, construction and installation of an energy conservation facility.

(2) "Energy conservation facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device necessarily acquired, erected, constructed or installed by any person in connection with the conduct of a trade or business and actually used in the processing or utilization of renewable energy resources to:

(a) Replace a substantial part or all of an existing use of electricity, petroleum or natural gas;

(b) Provide the initial use of energy where electricity, petroleum or natural gas would have been used;

(c) Generate electricity to replace an existing source of electricity or to provide a new source of electricity

NOTE: Matter in **bold face** in an amended section is new; matter [*italic and bracketed*] is existing law to be omitted; complete new sections begin with SECTION.

for use in the trade or business; or

(d) Perform a process that obtains energy resources from material that would otherwise be solid waste as defined in ORS 459.005.

(3) "Person" means any individual or legal entity except an entity whose principal business activity is directly or indirectly the production, transportation or distribution of electricity, petroleum or natural gas for wholesale or retail use.

(4) "Renewable energy resource" includes, but is not limited to straw, forest slash, wood waste or other wastes from farm or forest land, industrial or municipal waste, solar energy, wind power, water power or geothermal energy.

SECTION 4. In determining the eligibility of energy conservation facilities for tax credits, preference shall be given to those projects which:

(1) Are not routinely used in a commercial or industrial trade or business;

(2) Have the potential, if developed at other suitable locations, for making a significant contribution to meeting the energy needs of the state; or

(3) Are not reasonably expected, in the absence of the tax credit granted under this 1979 Act, to be cost effective within five years of erection, construction or installation.

SECTION 5. (1) The total of all costs of energy conservation facilities certified by the director for tax credits in any calendar year shall not exceed $30 million. If the applications exceed the $30 million limit, the director, in his discretion, shall determine the dollar amount certified for any facility and the priority between applications for certification based upon the criteria contained in sections 2 to 10 of this 1979 Act.

(2) Not less than $5 million of the $30 million annual certification limit shall be allocated to facilities having a certified cost of $100,000 or less for any facility.

(3) With respect to the balance of the annual certification limit, the maximum cost certified for any facility shall not exceed $10 million. However, if the applications certified in any calendar year do not total $25 million, the director, in his discretion, may increase the certified costs above the $10 million maximum for previously certified facilities. Such increases shall be allocated according to the director's determination of how the previously certified facilities meet the criteria of sections 2 to 10 of this 1979 Act. The increased allocation to previously certified facilities under this subsection shall not include any of the $5 million reserved under subsection (2) of this section.

SECTION 6. (1) Prior to erection, construction or installation of a proposed facility any person may apply to the department for preliminary certification under section 7 of this 1979 Act if:

(a) The erection, construction or installation of the facility is to be commenced on or after the effective date of this 1979 Act and before December 31, 1983;

(b) The facility complies with the standards or rules adopted by the director; and

(c) The applicant is the owner or contract purchaser of a trade or business that plans to utilize an energy conservation facility in connection with Oregon property or a person who, as a lessee or pursuant to an agreement, conducts the trade or business that operates or utilizes the facility in connection with Oregon property.

(2) Applications for preliminary certification shall be made in writing on a form prepared by the department and shall contain:

(a) A statement that the applicant is using or would have used an energy source that uses electricity, petroleum or natural gas and that the applicant:

(A) Intends to convert from that energy source to a renewable energy resource;

(B) Plans to construct a facility that will use a renewable energy resource or solid waste instead of electricity, petroleum or natural gas; or

(C) Plans to use a renewable energy resource in the generation of electricity that will replace an existing or proposed use of an existing source of electricity.

(b) A detailed description of the proposed facility and its operation and information showing that the facility will operate as represented in the application.

(c) Information on the amount by which consumption of electricity, petroleum or natural gas by the applicant will be reduced as the result of using the facility.

(d) The projected cost of the facility.

(e) Any other information the director deems necessary to determine whether the proposed facility is in accordance with the provisions of sections 2 to 10 of this 1979 Act, and any applicable rules or standards adopted by the director.

(3) The director may waive the filing of the preliminary application if he finds the filing inappropriate because special circumstances render the filing unreasonable, and if he finds such facility would otherwise qualify for tax credit certification pursuant to sections 2 to 10 of this 1979 Act.

SECTION 7. (1) The director may require the submission of plans and specifications and, after examination thereof, may request corrections and revisions of the plans and specifications.

(2) If the director determines that the proposed acquisition, erection, construction or installation is technically feasible and should operate in accordance with the representations made by the applicant, and is in accordance with the provisions of sections 2 to 10 of this 1979 Act and any applicable rules or standards adopted by the director, the director shall issue a preliminary certificate approving the acquisition, erection, construction or installation of the facility. If the director determines that the acquisition, erection, construction or installation does not comply with the provisions of sections 2 to 10 of this 1979 Act and applicable rules and standards, the director shall issue an order denying certification.

(3) If within 120 days of the receipt of an application for preliminary certification, the director fails to issue a preliminary certificate of approval or an order denying certification, the preliminary certificate shall be considered to have been denied.

(4) Within 60 days from the date of mailing of the order under subsection (2) of this section or from a denial under subsection (3) of this section, any person whose preliminary application has been denied may request a hearing. The request shall be in writing, shall state the grounds for hearing and shall be mailed to the director. The hearing shall be conducted in accordance with the provisions of ORS 183.310 to 183.500 applicable to contested cases.

SECTION 8. (1) No certification shall be issued by the director under this section unless the facility was acquired, erected, constructed or installed under a preliminary certificate of approval issued under section 7 of this 1979 Act, except where the filing of a preliminary application has been waived under section 6 of this 1979 Act, and in accordance with the applicable provisions of sections 2 to 10 of this 1979 Act and any applicable rules or standards adopted by the director.

(2) Any person may apply to the department for final certification of a facility:

(a) Unless filing has been waived, after having obtained preliminary certification for the facility under section 7 of this 1979 Act; and

(b) After completion of erection, construction or installation of the proposed facility.

(3) Applications shall be made in writing on a form prepared by the department and shall contain:

(a) Unless filing has been waived, a statement that the conditions of the preliminary certification have been complied with;

(b) The actual cost of the facility certified to by a certified public accountant who is not an employe of the applicant;

(c) A statement that the facility is in operation or, if not in operation, that the applicant has made every reasonable effort to make the facility operable; and

(d) Any other information determined by the director to be necessary prior to issuance of a final certificate, including inspection of the facility by the department.

(4) The director shall act on an application for certification before the 60th day after the filing of the application under this section. The action of the director shall include certification of the actual cost of the facility. However, in no event shall the director certify an amount for tax credit purposes which is more than 10 percent in excess of the amount approved in the preliminary certificate issued for the facility.

(5) If the director rejects an application for final certification, or certifies a lesser actual cost of the facility than was claimed in the application, the director shall send to the applicant written notice of the action, together with a statement of the findings and reasons therefor, by certified mail, before the 60th day after the filing of the application. Failure of the director to act constitutes rejection of the application.

(6) If the application is rejected for any reason, or if the applicant is dissatisfied with the certification of cost, then, within 60 days of the date of mailing of the notice under subsection (5) of this section or from a denial under subsection (5) of this section, the applicant may request a hearing to appeal the rejection under the provisions of ORS 183.310 to 183.500 governing contested cases.

(7) Upon approval of an application for final certification of a facility, the director shall certify the facility. Each certificate shall bear a separate serial number for each device. Where one or more devices constitute an operational unit, the director may certify the operational unit under one certificate.

SECTION 9. A certificate issued under section 8 of this 1979 Act is required for purposes of obtaining tax credits in accordance with sections 12 and 14 of this 1979 Act. Such certification shall be granted for a period not to exceed five years. The five-year period shall begin with the tax year of the applicant during which a certified facility is placed into operation, or the year the facility is certified under section 8 of this 1979 Act, at the election of the applicant.

SECTION 10. (1) Under the procedures for a contested case under ORS 183.310 to 183.500, the director may order the revocation of the certificate issued under section 8 of this 1979 Act if the director finds that:

(a) The certification was obtained by fraud or misrepresentation; or

(b) The holder of the certificate has failed substantially to construct or to make every reasonable effort to operate the facility in compliance with the plans, specifications and procedures in such certificate.

(2) As soon as the order of revocation under this section becomes final, the director shall notify the Department of Revenue of such order.

(3) If the certificate is ordered revoked pursuant to paragraph (a) of subsection (1) of this section, all prior tax credits provided to the holder of the certificate by virtue of such certificate shall be forfeited and upon

notification under subsection (2) of this section the Department of Revenue immediately shall proceed to collect those taxes not paid by the certificate holder as a result of the tax credits provided to the holder under section 12 or 14 of this 1979 Act. The Department of Revenue shall have the benefit of all laws of this state pertaining to the collection of income and excise taxes. No assessment of such taxes shall be necessary and no statute of limitation shall preclude the collection of such taxes.

(4) If the certificate is ordered revoked pursuant to paragraph (b) of subsection (1) of this section, the certificate holder shall be denied any further relief under section 12 or 14 of this 1979 Act in connection with such facility from and after the date that the order of revocation becomes final.

SECTION 11. Section 12 of this Act is added to and made a part of ORS chapter 316.

SECTION 12. (1) A credit is allowed against the taxes otherwise due under this chapter, based upon the certified cost of the facility during the period for which that facility is certified under sections 2 to 10 of this 1979 Act. The credit allowed in each of the first two tax years in which the credit is claimed shall be 10 percent of the certified cost of the facility, but shall not exceed the tax liability of the taxpayer. The credit allowed in each of the succeeding three years shall be five percent of the certified cost, but shall not exceed the tax liability of the taxpayer.

(2) The facility must be in Oregon and owned or leased during the tax year by the taxpayer claiming the credit.

(3) A credit under this section may be claimed by a taxpayer for a facility only in those tax years which begin on and after January 1, 1980.

(4) The maximum total credit allowable shall not exceed 35 percent of the certified cost of such facility.

(5) Upon any sale, exchange or other disposition of the facility, notice thereof shall be given to the Director of the Department of Energy who shall revoke the certificate covering the facility as of the date of such disposition. The transferee may apply for a new certificate under section 8 of this 1979 Act, but the tax credit available to that transferee shall be limited to the amount of credit not claimed by the transferor.

(6) Any tax credit otherwise allowable under this section which is not used by the taxpayer in a particular year may be carried forward and offset against the taxpayer's tax liability for the next succeeding tax year. Any credit remaining unused in that next succeeding tax year may be carried forward and used in the second succeeding tax year, and likewise, any credit not used in that second succeeding tax year may be carried forward and used in the third succeeding tax year, but may not be carried forward for any tax year thereafter. Credits may be carried forward to and used in a tax year beyond the years specified in subsection (1) of this section.

(7) The credit provided by this section is not in lieu of any depreciation or amortization deduction for the facility to which the taxpayer otherwise may be entitled under this chapter for such year.

(8) The taxpayer's adjusted basis for determining gain or loss shall not be further decreased by any tax credits allowed under this section.

(9) If the taxpayer is a shareholder of a Subchapter S corporation, the credit shall be computed using the shareholder's pro rata share of the corporation's certified cost of the facility. In all other respects, the allowance and effect of the tax credit shall apply to the corporation as otherwise provided by law.

SECTION 13. Section 14 of this Act is added to and made a part of ORS chapter 317.

SECTION 14. (1) A credit is allowed against the taxes otherwise due under this chapter, based upon the certified cost of a facility during the period for which that facility is certified under sections 2 to 10 of this 1979

Act. The credit allowed in each of the first two tax years in which the credit is claimed shall be 10 percent of the certified cost of the facility, but shall not exceed the tax liability of the taxpayer. The credit allowed in each of the succeeding three years shall be five percent of the certified cost, but shall not exceed the tax liability of the taxpayer.

(2) The facility must be in Oregon and owned or leased during the tax year by the taxpayer claiming the credit.

(3) A credit under this section may be claimed by a taxpayer for a facility only in those tax years which begin on and after January 1, 1980.

(4) The maximum total credit allowable shall not exceed 35 percent of the certified cost of such facility.

(5) Upon any sale, exchange or other disposition of a facility, notice thereof shall be given to the Director of the Department of Energy who shall revoke the certificate covering the facility as of the date of such disposition. The transferee may apply for a new certificate under section 8 of this 1979 Act, but the tax credit available to that transferee shall be limited to the amount of credit not claimed by the transferor.

(6) Any tax credit otherwise allowable under this section which is not used by the taxpayer in a particular year may be carried forward and offset against the taxpayer's tax liability for the next succeeding tax year. Any credit remaining unused in that next succeeding tax year may be carried forward and used in the second succeeding tax year, and likewise, any credit not used in that second succeeding tax year may be carried forward and used in the third succeeding tax year, but may not be carried forward for any tax year thereafter. Credits may be carried forward to and used in a tax year beyond the years specified in subsection (1) of this section.

(7) The credit provided by this section is not in lieu of any depreciation or amortization deduction for the facility to which the taxpayer otherwise may be entitled under this chapter for such year.

(8) The taxpayer's adjusted basis for determining gain or loss shall not be further decreased by any tax credits allowed under this section.

SECTION 15. If a taxpayer obtains grants or tax credits from the Federal Government other than investment credits granted under section 46 of the Internal Revenue Code of 1954 as it reads on the effective date of this Act, in connection with a facility which has been certified by the Director of the Department of Energy, the certified cost of the equipment shall be reduced on a dollar for dollar basis. Any income or excise tax credits which such taxpayer would be entitled to under this Act after any such reduction shall not be reduced by such federal grants or tax credits. Taxpayers applying for federal grants or credits shall notify the Department of Revenue by certified mail within 30 days of each such application, and of the receipt of any such grant.

SECTION 16. No tax credit shall be allowed under this Act for any facility constructed or used by or for the benefit of any governmental or quasi-governmental body or public corporation or form thereof.

SECTION 17. A person who applies for and receives a tax credit on a pollution control facility or an alternate energy device under ORS 316.097, 316.116 or 317.072 is not eligible to apply for and receive a tax credit on the same facility or device under the provisions of this Act.

B-Engrossed

House Bill 2846

Ordered by the Senate June 27
(Including Amendments by House April 12
and May 22 and by Senate June 27)

Sponsored by Representatives OTTO, LINDQUIST, WHALLON, BAUMAN, CEASE, MONROE (at the request of Metropolitan Service District)

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure.

Prohibits establishment of public or private solid waste disposal, transfer or resource recovery sites or facilities within boundaries of metropolitan service district without prior approval of metropolitan service district council. Authorizes district council to approve or deny application to establish, modify or extend solid waste disposal, transfer or resource recovery sites or facilities on consideration of certain factors. Provides that licenses or franchises granted by district may be exclusive. Authorizes district regulation and control of public or private solid waste disposal, transfer and resource recovery sites and facilities located within the district. Permits district to lease landfills, transfer and resource recovery facilities and other equipment necessary for waste disposal. Specifies that such leases can be lease-purchase agreements. Establishes 30-year term for leases and lease-purchase agreements. Provides that existing landfills authorized to accept food wastes which, on March 1, 1979, are franchised by a county or owned by a city are exempt from district's franchising and rate regulation. Specifies that certain tax relief shall not be available for certain pollution control facilities unless such facilities are used for [*solid waste disposal or*] resource recovery. Provides that portions of pollution control facilities may be certified separately if ownership of portions is in more than one person. Specifies that provisions relating to pullution control credits apply in sales, exchanges or other dispositions of certified portions of facilities. Exempts from operation of antitrust statutes lawful activities of metropolitan service district or of persons regulated by metropolitan service district.

A BILL FOR AN ACT

Relating to pollution control; creating new provisions; and amending ORS 268.020, 268.317, 314.255, 468.170 and 646.740.

Be It Enacted by the People of the State of Oregon:

SECTION 1. Section 2 of this Act is added to and made a part of ORS chapter 268.

SECTION 2. (1) No public or private disposal, transfer or resource recovery site or facility in the district shall be established, modified or extended without the prior approval of the council. The council may deny an application for the establishment, modification or extension of a site or facility if pursuant to its solid waste management plan the district has either:

(a) Entered into contracts obligating the district to supply or direct minimum quantities of solid wastes to sites or facilities designated in the contract in order that those sites or facilities will operate economically and generate sufficient revenues to liquidate any bonded or other indebtedness incurred by reason of those sites or facilities; or

(b) Adopted a franchise system for the disposal of solid or liquid wastes.

(2) In considering an application for the establishment, modification or extension of a site or facility, the council may take into account the location and number of existing sites or facilities and their remaining capacities, whether the proposed establishment, modification or extension complies with the district's solid waste management plan and whether the applicant has complied with all other applicable regulatory requirements.

NOTE: Matter in **bold face** in an amended section is new; matter [*italic and bracketed*] is existing law to be omitted; complete new sections begin with **SECTION.**

Section 3. ORS 268.020, as amended by section 2, chapter 665, Oregon Laws 1977, is further amended to read:

268.020. As used in this chapter:

(1) "Council" means the governing body of a district.

(2) "District" means a metropolitan service district established under this chapter.

(3) "Metropolitan area" means that area which lies within the boundaries of Clackamas, Multnomah and Washington Counties.

(4) "Improvement" means the facilities and other property constructed, erected or acquired by and to be used in the performance of services authorized to be performed by a district.

(5) "Metropolitan significance" means having major or significant district-wide impact.

(6) "Person" means the state or a public or private corporation, local government unit, public agency, individual, partnership, association, firm, trust, estate or any other legal entity.

Section 4. ORS 268.317 is amended to read:

268.317. For purposes of solid and liquid waste disposal, a district may:

(1) Build, construct, acquire, **lease,** improve, operate and maintain landfills, transfer facilities, resource recovery facilities and other improvements, facilities or equipment necessary or desirable for the solid and liquid waste disposal system of the district. **Leases authorized by this section include lease-purchase agreements whereunder the district may acquire ownership of the leased property at a nominal price. Such leases and lease-purchase agreements may be for a term of up to 30 years.**

(2) Sell, enter into short or long-term contracts, solicit bids, enter into direct negotiations, deal with brokers or use other methods of sale or disposal for the products or by-products of the district's facilities.

(3) Require any person or class of persons who generate solid or liquid wastes to make use of the disposal, **transfer or resource recovery** sites or facilities of the district or disposal [*site*]**, transfer or resource recovery sites** or facilities designated by the district.

(4) Require any person or class of persons who pick up, collect or transport solid or liquid wastes to make use of the disposal**, transfer or resource recovery** sites or facilities of the district or disposal**, transfer or resource recovery** sites or facilities designated by the district.

(5) [*Grant or enter into contracts, licenses or franchises to one or more persons for the purposes described in subsection (1) of this section and set and collect fees from the person or persons holding such contract, license or franchise.*] **Regulate, license, franchise and certify disposal, transfer and resource recovery sites or facilities; establish, maintain and amend rates charged by disposal, transfer and resource recovery sites or facilities; establish and collect license or franchise fees; and otherwise control and regulate the establishment and operation of all public or private disposal, transfer and resource recovery sites or facilities located within the district. Licenses or franchises granted by the district may be exclusive. Existing landfills authorized to accept food wastes which, on March 1, 1979, are either franchised by a county or owned by a city are exempt from the district's franchising and rate regulation.**

(6) Prescribe a procedure for the issuance, administration, renewal or denial of contracts, licenses or franchises granted under subsection (5) of this section.

(7) Regulate the service or services provided by contract, license or franchise and order modifications, additions or extensions to the equipment, facilities, plan or services as shall be in the public interest.

(8) Receive, accept, process, recycle, reuse and transport solid and liquid wastes.

Section 5. ORS 314.255 is amended to read:

314.255. (1) Upon receipt of notice of the revocation of a certification of a pollution control facility pursuant to subsection (1) of ORS 468.185, the Department of Revenue immediately shall collect any taxes due by reason of such revocation, and shall have the benefit of all laws of this state pertaining to the collection of income and excise taxes. No assessment of such taxes shall be necessary and no statute of limitation shall preclude the collection of such taxes.

(2) No tax relief shall be allowed under ORS 307.405, [*316.092 (1973 Replacement Part)*] **316.097** or [*ORS*] 317.072 for any pollution control facility constructed or used by or for the benefit of any governmental or quasi-governmental body or public corporation or form thereof, **except where such facilities are used for resource recovery.**

Section 6. ORS 468.170 is amended to read:

468.170. (1) The commission shall act on an application for certification before the 120th day after the filing of the application under ORS 468.165. The action of the commission shall include certification of the actual cost of the facility and, for facilities qualifying under paragraph (a) or (b) of subsection (1) of ORS 468.165, the portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution as set forth in subsection (2) of ORS 468.190. Each certificate shall bear a separate serial number for each such facility.

(2) If the commission rejects an application for certification, or certifies a lesser actual cost of the facility or a lesser portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution or solid waste than was claimed in the application for certification, the commission shall cause written notice of its action, and a concise statement of the findings and reasons therefor, to be sent by registered or certified mail to the applicant before the 120th day after the filing of the application. Failure of the commission to act constitutes rejection of the application.

(3) If the application is rejected for any reason, including the information furnished by the applicant as to the cost of the facility, or if the applicant is dissatisfied with the certification of actual cost or portion of the actual cost properly allocable to prevention, control or reduction of air, water or noise pollution or solid waste, the applicant may appeal from the rejection as provided in ORS 468.110. The rejection or the certification is final and conclusive on all parties unless the applicant takes an appeal therefrom as provided in ORS 468.110 before the 30th day after notice was mailed by the commission.

(4) If the commission finds that a pollution control or solid waste facility or portion thereof, for which an application has been made under ORS 468.165, was erected, constructed or installed under a certificate of approval issued pursuant to ORS 468.175 and in accordance with the requirements of 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, and that the facility is necessary to satisfy the intents and purposes of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, ORS chapters 459 and 467 and this chapter and rules thereunder, it shall certify such facility. No determination of the proportion of the actual cost of the facility to be certified shall be made until receipt of the application. Where one or more facilities constitute an operational unit, the commission may certify such facilities under one certificate. A certificate under this section is effective for purposes of tax relief in accordance with ORS 307.405, 316.097 and 317.072 if erection, construction or

installation of the facility was commenced prior to December 31, 1988. The commission shall attach to the front of each certificate a copy of the notice and election requirements imposed by subsection (5) of this section.

(5) A person receiving a certificate under this section shall make an irrevocable election to take the tax credit relief under ORS 316.097 or 317.072 or the ad valorem tax relief under ORS 307.405 and shall notify the commission, within 60 days after the receipt of such certificate, of his election. This election shall apply to the facility or facilities certified and shall bind all subsequent transferees. Failure to make a timely notification shall make the certificate ineffective for any tax relief under ORS 307.405, 316.097 and 317.072.

(6) If the person receiving the certificate is an electing small business corporation as defined in section 1371 of the Internal Revenue Code, and if the corporation elects to take tax credit relief, such election shall be on behalf of the corporation's shareholders. Each shareholder shall be entitled to take tax credit relief as provided in ORS 316.097, based on that shareholder's pro rata share of the certified cost of the facility.

(7) Certification under this section of a pollution control facility qualifying under subsection (1) of ORS 468.165 shall be granted for a period of 10 consecutive years which 10-year period shall begin with the tax year of the person in which the facility is certified under this section, except that if the person elects ad valorem tax relief the provisions of ORS 307.405 shall apply.

(8) (a) A facility commenced prior to December 31, 1980, and qualifying under paragraph (c) of subsection (1) of ORS 468.165 shall be certified if it meets such requirements.

(b) For a facility commenced after December 31, 1980, and prior to December 31, 1983, the commission, in addition to, and not in lieu of, the requirements under paragraph (c) of subsection (1) of ORS 468.165, shall only certify such a facility if it meets one of the following conditions:

(A) That the facility is necessary to assist in solving a severe or unusual solid waste problem;

(B) That the facility will provide a new or different solution to a solid waste problem than has been previously used, or the facility is a significant modification and improvement of similar existing facilities; or

(C) That the department has recommended the facility as the most efficient or environmentally sound method of solid waste control.

(c) However, such a facility certified after December 31, 1983, shall be certified pursuant to the procedures, costs properly allocable and all other matters as if it were a facility subject to certification under paragraph (a) of subsection (1) of ORS 468.165.

(9) Portions of a facility qualifying under paragraph (c) of subsection (1) of ORS 468.165 may be certified separately under this section if ownership of the portions is in more than one person. Certification of such portions of a facility shall include certification of the actual cost of the portion of the facility to the person receiving the certification. The actual cost certified for all portions of a facility separately certified under this subsection shall not exceed the total cost of the facility that would have been certified under one certificate. The provisions of subsection (10) of ORS 316.097 or 317.072, whichever is applicable, shall apply to any sale, exchange or other disposition of a certified portion of a facility.

Section 7. ORS 646.740 is amended to read:

646.740. No provisions of ORS 136.617, 646.705 to 646.805 and 646.990 shall be construed to make illegal:

(1) The activities of any labor organization or individual working men and women permitted by ORS chapters 661 to 663;

(2) The right of producers of agricultural commodities to join, belong to and act through cooperative bargaining associations under ORS 646.515 to 646.545;

(3) The activities of any person subject to regulation by the Public Utility Commissioner under ORS chapters 756 to 773 to the extent that such activities are so regulated and are lawful thereunder or the activities of any person conducted or carried out in accordance with any agreement or procedure approved as provided in 49 U.S.C. 5b or 5c;

(4) The activities of any person subject to regulation by the Insurance Commissioner under ORS chapters 731 to 751 to the extent that such activities are so regulated and are lawful thereunder;

(5) The activities of any state or national banking institution or savings and loan association, and of any other lending institution, to the extent that such activities are regulated by the Superintendent of Banks or Savings and Loan Supervisor under the banking and loan association laws of Oregon under ORS chapters 706 to 726 and are lawful thereunder; [*or*]

(6) Any other activity specifically authorized under state law or local ordinance[.] ; **or**

(7) The activities of any metropolitan service district formed under ORS chapter 268 and the activities of any person subject to regulation by a metropolitan service district formed under ORS chapter 268 to the extent that those activities are so regulated and are lawful thereunder.

ATTORNEY GENERAL OPINIONS

ON

TAX CREDIT STATUTES

Summary of Attorney General Opinions Involving the
Pollution Control Facilities Tax Credit Statutes

Date Issued & Type	Subject	Question	Answer	Explanation or Comments
10/04/79 Informal	Van Pools	Is the Commission prevented from certifying for tax credit an automobile passenger van purchased by a private employer for the purpose of providing to his employees a mode of transportation to and from work in order to reduce the amount of air pollution and noise that would otherwise result from the use of individual automobiles?	Yes	Legislature only intended to cover pollution control facilities directly related to operation of the industry or enterprise seeking the tax credit.
06/04/79 Informal	Facilities required by law before 1967	Is the Commission prevented from certifying for tax credit a facility required by law before the passage of the original tax credit statutes in 1967?	No	The tax credit statutes do not state or imply that a facility is not eligible for tax credit because it is required to be constructed by virtue of any governmental law or rule in existence at any time.
11/06/78 Informal	Steam turbine generator	Is a generator, added to an already certified hog fuel boiler, eligible for tax credit if more wood waste is burned even though the original design capacity of the boiler is not exceeded?	No	The intent behind the tax credit statutes seems to be that the original productive capacity of the boiler is the base against which the determination is made as to whether the addition of the generator will increase the production of energy over the amount being produced by the boiler alone.
11/06/78 Informal	Dry kilns	Is a dry kiln installed with a hog fuel boiler to dry green lumber eligible for tax credit certification?	Yes, if meet substantial purpose test.	The statutes require that the substantial purpose of their construction be the reduction and utilization of solid waste.

Date Issued & Type	Subject	Question	Answer	Explanation or Comments
07/24/78 Informal	Leased facilities	May person leasing a pollution control facility obtain tax credit certification?	Yes	Based upon precedent established early in the program. However, to avoid tax credits being obtained by both the lessor and lessee, the lessee must provide DEQ with a copy of the complete and current lease agreement on the facility and a notarized statement from the lessor acknowledging that only one tax credit will be allowed for the facility and authorizing the lessee to take the credit.
06/14/78 Informal	Preliminary Certification	Under what circumstances may the Commission certify a facility when the applicant has never filed a request for preliminary certification on Department form number DEQ/TC-1-10/77?	A verbal or written request may be accepted if made before construction commenced.	Statutes require the request be in a form prescribed by Department. Thus, the Dartment has flexibility in determining what constitutes a request.
		Note: Oregon Laws 1979, Chapter 802, Section 5, now allows the Commission to waive the filing of a request for preliminary certification if special circumstances render the filing unreasonable, and the facility would otherwise be eligible for tax credit.		
04/27/78 Informal	Preliminary Certification	Must a person proposing to apply for certification of a facility be <u>issued</u> a preliminary certificate of approval <u>before</u> commencing construction of the facility?	No	The statutes require the applicant to file a request for preliminary certification before commencing construction, but not that the preliminary certificate be issued prior to construction. Of course the applicant proceeds at his own risk. (Also see note under 6/14/78 opinion).

Date Issued & Type	Subject	Question	Answer	Explanation or Comments
04/27/78 Informal	Preliminary Certification	Must the facility be designed such that it can reasonably be expected to comply with the applicable statutes and regulations of the Department in order to be issued preliminary certification?	Yes	The facility must meet the "substantial purpose" test as well as be in accordance with, and necessary to satisfy the intents and purposes of the statutes, rules and standards referenced in the tax credit statutes. It is not merely required that the facility be designed to a substantial extent for the purpose of preventing controlling or reducing pollution.
04/27/78 Informal	Preliminary Certification	Can preliminary certification be denied on the grounds that the facility proposed is not a reasonable or cost effective solution to the pollution problem involved?	No	The tests set forth in the statute do not appear to include a requirement that the facility be the most reasonable or cost effective way to deal with the problem.
04/27/78 Informal	Preliminary Certification	If it is obvious on the face of a request for preliminary certification that construction was commenced before the request was filed with the Department, can the request be rejected as incomplete (legally flawed) and not processed further?	Yes (see note under 6/14/78 opinion)	The request can be rejected by DEQ as incomplete because not in compliance with ORS 468.175(1), however the applicant should be given prompt written notice of rejection. Of course, DEQ must be careful that it has not, by actions of staff, caused the applicant to understand that his request has been received informally by DEQ prior to construction.

Date Issued & Type	Subject	Question	Answer	Explanation or Comments
04/27/78 Informal	Preliminary Certification	Must a person applying for certification of a noise pollution control facility have filed a request for preliminary certification before commencing construction if construction began after January 1, 1977, and before October 4, 1977, (effective date of 1977 amendments)?	No	Intent was that facilities constructed after January 1, 1977 be eligible for tax credit. Preliminary certification not required until after October 3, 1977.
04/27/78 Informal	Hearings	Is the hearing allowed under ORS 468.175(5) a contested case type hearing?	Yes	Statute states that hearing shall be conducted in accordance with the applicable provisions of ORS Chapter 183.
04/01/77 Informal	Commencement of Construction	Does issuance of purchase orders for equipment to construct a facility by the applicant constitute the commencement of erection, construction or installation of the facility?	No	Such purchase orders, without more, would not constitute the commencement of erection, construction or installation of the facility.
03/22/77 Informal	Paved log deck	If the substantial purpose of paving a log deck was not for utilizing solid waste, could the EQC certify a portion of the facility proportional to the benefits received which were attributable to solid waste utilization?	No	The EQC could only certify a portion of a facility if the applicant could physically identify that portion of the facility whose substantial purpose was utilization of solid waste.

Date Issued & Type	Subject	Question	Answer	Explanation or Comments
03/03/76 Informal	Sale or exchange of facilities	What is the statutory responsibility of the EQC and DEQ for policing sales or exchanges of pollution control facilities granted tax credit and nonuse of such facilities for pollution control purpose?	None	Policing is by the tax authorities, Department of Revenue or County Assessors. Neither the EQC or DEQ has any obligation to affirmatively inquire whether the pollution control facility has been in use or operation for the intended purpose or has been sold or exchanged. However, if it does somehow obtain knowledge thereof, the EQC must then revoke the certificate.
02/23/76	Field burning alternatives	Are a straw baler and bale accumulator used to remove grass seed straw from fields prior to open burning eligible for tax credit certification?	No, unless designated under ORS 468.150.	ORS 468.150 states that after alternative methods for field sanitation and straw utilization and disposal are approved by the Field Burning Advisory Committee and DEQ, they will be eligible for tax credit certification. At the time only mobile field sanitizers have been given approval.
01/16/76 Informal	Application review period	Does the 120-day period, within which the EQC must take action, start running on the date of receipt of the application, or on the date the Department notifies the applicant that the application is deemed to be complete for processing?	Starts when application completed for processing.	Once the application filed is complete, the 120-day period would begin the run even before the Department notification of the applicant that the application was deemed completed by the Department.
01/16/76 Informal	Notice upon application denial	If an application is rejected by failure of the Commission to act within 120 days, is notice required?	No, but recommended.	Notice is not required but recommend it be given in written form to provide a basis for the beginning of the time period applicant has to appeal the denial.

Date Issued & Type	Subject	Question	Answer	Explanation or Comments
01/16/76 Informal	Appeal procedure upon application denial	If an application is rejected by failure of the Commission to act, is applicant's appeal procedure still operative and within what time frame?	Yes, applicant can appeal denial within statutory time frame.	If notice is given, the 30-day time period of 468.170(3) would apply. If notice not given, a 60-day period for taking of an appeal is probably applicable.
01/16/76 Informal	Determination of eligibility	When does determination and notice to applicant of extent of eligibility for tax credit need to be made?	At time final certificate is issued to applicant.	The determination of the full extent a facility is eligible for tax credit does not need to be made at the preliminary certification stage, although it should be determined to the extent possible at that time.
01/16/76 Informal	Withdrawal and resubmission of applications	Can an application be withdrawn and resubmitted at any time by an applicant?	Yes	An application could be withdrawn at any time, or resubmitted at any time by the applicant.
01/16/76 Informal	Incomplete applications	Can Department reject an application on the basis of incomplete information?	Yes	No action may be taken by the Department on an application for preliminary certification or tax credit certification until the application is complete. The Department should notify the applicant of incomplete application and in what respects it is incomplete.
12/19/75 Informal	Certificate approval	Can a tax credit certification be approved on condition?	No	The Commission must either unconditionally issue the certificate or deny it.
08/13/74 Informal	Motor vehicle pollution control equipment	Can the installation of propane carburetion equipment on company vehicles be certified for tax credit?	Yes, if meets substantial purpose test.	It might well come within the definition of pollution control facility if company can show that a substantial purpose of its installation is for air pollution control.

Date Issued & Type	Subject	Question	Answer	Explanation or Comments
07/09/74 Informal	Agricultural facilities	Can facilities used for agricultural operations be certified for tax credit even though most agricultural operations are exempt from Oregon's air pollution control laws?	Yes	There is no language in the tax credit statutes which specifically excepts such facilities when used for agricultural operations from the benefits of these statutes. The disposal or elimination of air pollution by a facility in an agricultural operation may be rewarded in the form of a tax credit under one statute even though of control of such air pollution is denied by another statute.
01/03/74 Informal	Pressure blackflow prevention facilities	Can reduced pressure blackflow prevention devices and doublecheck value installations used to prevent industrial wastes from entering the water supply of the city of Portland be certified for tax credit?	Yes, if meets substantial purpose test.	The water in a municipal water system qualifies as waters of the state and therefore pollution of them constitutes water pollution, within the definition of tax credit statutes. However, private waters which do not combine or effect a junction with natural surface or underground waters are not included within the definition of waters of the state as used in the definition of water pollution and therefore devices used to protect such waters from pollutants are not eligible for tax credit.

Date Issued & Type	Subject	Question	Answer	Explanation or Comments
11/07/73 Informal	Sale or exchange of a facility	Does the merger of a wholly-owned corporate subsidiary corporation into the parent corporation under Oregon corporation law constitute a sale, exchange, or other disposition of a facility within the meaning of ORS 316.097?	No	Title to the facility is changed from the subsidiary to the parent corporation by operation of law and without any transfer document. Therefore, revocation of the tax certification and application for a new certificate is not required. However, a notation should be made on the certificate that a merger has occurred giving the names and date it occurred.
01/12/72	Sale or exchange of a facility	What is the procedure to be followed in transferring a tax credit certificate from one holder to another?	The Commission should revoke the certificate and grant a new one to the new holder for the balance of the available credit.	This procedure is set forth in ORS 307.405, 316.097, and 317.072.
09/01/70 Informal	Compliance status of facility	Must a facility claimed for tax credit be in full compliance with the applicable regulations of the EQC in order to qualify for certification?	No	A facility does not have to be "perfect" nor totally eliminate all pollutants before certification is authorized. It need only be used for the substantial purpose of pollution control and at least prevent or reduce pollution. DEQ does have discretion to determine if a facility meets the intents and purposes of its statutes and rules. Certainly if a facility does not meet established rules, it is an important factor for the Commission to consider in arriving at whether or not it should be granted certification.

Date Issued & Type	Subject	Question	Answer	Explanation or Comments
Unknown Informal	Facility not in operation	Is a firm who has constructed or installed pollution control facilities eligible for tax relief certification even though the facilities are not being operated to control or prevent pollution?	Yes, if applicant gives evidence that they will be operated.	A pollution control facility not yet in operation may be certified by the Commission if it finds it will be placed in operation. The word "will" as used in the statutes does not mean capability, ability, or could. Will denotes certainty, not speculation. The Commission must find, therefore, that the facility will at least operate to prevent, control or reduce pollution.

DEPARTMENT OF JUSTICE

Memorandum

TO: James A. Redden
Attorney General

DATE: October 4, 1979

FROM: Donald Arnold
Assistant Attorney General

SUBJECT: Pollution Control Tax Credit for Passenger Vans

You ask that I review the conclusions reached in Rob Haskins attached letter to DEQ.

I believe that letter takes ~~too liberal~~ an approach concerning DEQ's authority to certify a passenger van system for the pollution control tax credit. Specifically, I do not agree that a passenger van is covered by the words "machinery, equipment or device" included in the definition of "pollution control facility." ORS 468.155(1).

It seems clear to me the legislature intended only to cover pollution control facilities directly related to operation of the industry or enterprise seeking the tax credit. In this regard, I agree with the first sentence of the last paragraph on page 3 of Rob's letter.

Research into the legislative history of ORS 468.155 revealed that the legislation was patterned after similar legislation existing in 23 other states. The definition of "pollution control facility" probably originated in another state, but it is difficult to tell from the legislative records exactly which state provided the definition.

Throughout the legislative hearings on this measure no mention was made of shared van use by employes as a method reducing air pollution and eligible for a tax credit.

The comments of Herbert Hardy, an attorney speaking on behalf of several industries, as to the intent of the measure is typical of the testimony on file:

> "This [bill] is an incentive measure to encourage industries and commercial enterprises to speed up the installation of pollution control devices for both air and water. By the incentives provided, we believe that industry will itself spend large sums on research and engineering to find ways and means to control, reduce or eliminate pollution and to install such devices as will accomplish those ends."

[Testimony May 11, 1967 before House Tax Committee on SB 546]

The emphasis on installing pollution control devices indicates that the concern of the measure was to reduce pollutants emitted from the industry facilities. Motor vehicles used to transport employes to and from work are unrelated to the pollutants emitted from the work place itself. Vehicles cannot be "installed" in the workplace.

The legislature has provided other measures for reducing automobile emissions. (ORS 468.360-468.405) Thus, the legislative intent behind ORS 468.155 appears to be reducing pollution from industrial facilities and not from vehicles used by the employes to go to and from work.

In short, I do not believe DEQ has authority to certify a passenger van pool system for a pollution control tax credit.

ld

September 17, 1979

Mr. William H. Young, Director
Department of Environmental Quality
Yeon Building
522 S. W. Fifth Avenue
Portland, Oregon 97204

Re: Pollution Control Tax Credit for an Automobile Passenger Van

Dear Mr. Young:

By letter dated August 17, 1979, to Ray Underwood, Chief Counsel of this office, you requested an informal opinion on your question of whether the Department of Environmental Quality is prevented from certifying for a pollution control tax credit the cost (or apportioned cost) of an automobile passenger van purchased by a private employer for the purpose of providing to his employees a mode of transportation to and from work in order to reduce the amount of air pollution and noise that would otherwise result from the use of individual automobiles. Ray asked me to respond to your letter.

In my view, although DEQ theoretically has the statutory authority to so certify, it is unlikely that the applicant would make the showing required under the statutes for certification.

Although passenger motor vehicles are not specifically included in the definition of "pollution control facility" or "facility" in ORS 468.155, the use of the words "machinery, equipment or device" in the definition would probably include passenger motor vehicles. However, that is only the first hurdle. Additionally, in order to qualify as such a facility, the machine, etc., must be installed or used with "a substantial purpose . . . [being] the prevention, control or reduction of air, . . . or noise pollution . . . by:

* * * *

"(b) The disposal or elimination of or redesign to eliminate air contaminants or air pollution

> or air contamination sources and the use of air cleaning devices as defined in ORS 468.275; [or]
>
> "(c) The substantial reduction or elimination of or redesign to eliminate noise pollution or noise emission sources as defined by rule of the commission;" (ORS 468.155(1); (emphasis added.)

This should be a factual question in each case. The Commission has not adopted any definitional rule as referred to in ORS 468.155(1)(c). However, the replacement of numerous sources of air pollution with a single more efficient source (from the standpoint of units of pollution per passenger mile) could conceivably qualify. It should be noted that the legislature used the language "a substantial purpose" (emphasis added). It clearly does not mean the sole purpose. Neither does it appear to mean the primary or major purpose. This is evident from the fact that the legislature has envisioned and provided for the certification of facilities where less than 20 percent of the costs thereof are "properly allocable to the prevention, control or reduction of air, . . . or noise pollution . . .." ORS 468.190.

Although an employer in so purchasing and using an automobile theoretically could have as a substantial purpose the prevention, control, or reduction of air and noise pollution, it is unlikely that it would have sufficient control over the facts to ensure a reasonable likelihood of that result given the set of facts which you have assumed. In other words, the purported substantial purpose must be predictably reasonably attainable through use of the proposed facility. You have assumed that the employees who would ride the employer's van each previously had used individual automobiles to go to work. In reality, that may or may not be the case. Presumably, on the average, some employees use public transportation, some participate in car pools, some walk, some ride bicycles, some ride motorcycles, etc., and some drive alone to work in their own cars. Of course, placing a former bicycle rider in a van would not reduce, etc., air pollution. Each possible variation in the scenario would have to be analyzed on its own merits.

Even assuming that each employee intended to be transported by the van had previously gone to work alone in his own automobile, the reduction, etc., of air pollution would not necessarily be reasonably certain for several reasons. First, although when the employees use the van instead of their own autos their emissions per passenger mile no doubt are reduced, it is very likely that in many cases their family emissions would increase. For example, in the case

of a one-car family, the use of the employer's van by the employee might free the family's auto for use by other family members and possibly exceed the previous use of that car and thereby exceed its previous contribution to air pollution.

Second, even if the prospective riders are carefully chosen, it is unlikely that an employer could or would reasonably guarantee that any immediate gains would be perpetuated. It would be unlikely, but not impossible, that the employer would attempt to guarantee continued use of the van by its employees chosen to be transported such as by requiring continued use as a special condition in an employment contract. However, nothing could guarantee that the chosen employees would continue employment with the employer!

Of course, if the employer could make the requisite showing and obtain a certificate, the employer would have to transport substantially only qualifying employees throughout the period of use of the vehicle or risk loss of the certificate and future benefits thereunder. ORS 468.185(1)(b). Additionally, once an employee qualified he would have to continue to qualify if he continued to use the certified vans in order to maintain the certifications. At the least that would mean that he would have to continue to maintain the potential legal and financial abilities to drive his own automobile to work. In light of escalating gasoline prices and actual shortages, continuing qualification might not be assured. Additionally, if an otherwise qualified employee should lose his driver's license, he likely would no longer qualify.

Essentially, the employer in the assumed factual situation would be applying for a pollution control tax certificate not for reducing its own pollution (presumably its own emissions would increase by the amount of the van's emissions), but rather for reducing the pollution of third parties. The Commission has not previously granted a tax certificate to an applicant who proposed to reduce a third party's pollution instead of its own pollution. Although the statutes do not expressly prevent such an interpretation, the legislature may not have intended it. There is one well-known situation where one entity commonly reduces a third party's pollution. That is in the case of the common sewage treatment plant. No other analagous common situation readily comes to mind. In that one situation, the legislature has expressly excluded sewage treatment plants from eligibility for tax credits. ORS 468.155(2). That might also reflect the intentions of the legislature regarding the general proposition.

In summary, eligibility for a pollution control tax credit certificate must be determined in each case by analyzing the unique facts of each proposal. Although certification of an employee van is theoretically possible, it is unlikely that the requisite factual showing would be made to qualify. However, the above discussion should not be construed to eliminate the possibility of certifying only an automobile pollution control device rather than the whole automobile.

Please call me if you have any questions.

Sincerely,

Robert L. Haskins
Assistant Attorney General

kth/hk

JAMES A. REDDEN
ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

PORTLAND DIVISION
500 Pacific Building
520 S.W. Yamhill
Portland, Oregon 97204
Telephone: (503) 229-5725

June 4, 1979

Mr. Ray Potts
Air Quality Division
Department of Environmental Quality
522 S.W. Fifth Avenue
Portland, OR 97204

Re: Tax Credit for Facility Required by Law before 1967

Dear Ray:

This letter is in reply to your memorandum of May 29, 1979, requesting an informal legal opinion on the above-designated subject.

If the road paving qualifies as a "pollution control facility" within the meaning of ORS 468.155, was installed on or after January 1, 1967 (as required by ORS 468.165(1)(a)) and the facility meets the requirements of ORS 468.170(4) for a Commission finding, the facility is eligible for tax credit certification by the Commission, notwithstanding the existence of a city ordinance requiring the facility's installation.

The tax credit statutes do not state or imply that a facility is not eligible for tax credit because it is required to be constructed by virtue of any governmental law or rule at any time in existence. Many facilities have been granted tax credits though required by the state pollution control laws and rules. A city ordinance requiring a facility should be treated no differently even if the ordinance's principal purpose was not pollution control. However, of course, the facility itself must meet the "substantial purpose" test of ORS 468.155.

Sincerely,

Ray Underwood

Raymond P. Underwood
Chief Counsel

ej

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY — INTEROFFICE MEMO

TO: Ray Underwood — DATE: May 29, 1979

FROM: Ray Potts

SUBJECT: Request for informal legal opinion on an Application for Tax Credit pursuant to ORS 468.170(4) when the facility was required by law before 1967.

ORS 468.170(4) states:

(4) If the commission finds that a pollution control or solid waste facility or portion thereof, for which an application has been made under ORS 468.165, was erected, constructed or installed under a certificate of approval issued pursuant to ORS 468.175 and in accordance with the requirements of 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, and that the facility is necessary to satisfy the intents and purposes of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, ORS chapters 459 and 467 and this chapter and rules thereunder, it shall certify such facility.

The Department received a tax credit application for the paving of a parking lot to control dust in the City of Springfield. Lane Regional Air Pollution Authority encouraged paving the parking lot to solve a dust problem.

Parking lots in the City of Springfield, however, were required by city ordinance to be paved prior to 1967 when the tax credit law was passed.

Would you prepare an informal legal opinion responding to the following question:

Under what circumstances, if any, may the commission deny a Pollution Control Facility Certificate for a facility that was required by law before the passage of the tax credit law in January 1967?

Please address at least the following circumstance when responding to the question above.

If an applicant can be denied due to a city ordinance, is the burden of proof on the applicant to show that the city ordinance did not apply in his particular case?

RP:tf

JAMES A. REDDEN
ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

PORTLAND DIVISION
500 Pacific Building
520 S.W. Yamhill
Portland, Oregon 97204
Telephone: (503) 229-5725

November 6, 1978

Mr. Milan Synak
Solid Waste Division
Department of Environmental
Quality
Yeon Building
522 S.W. Fifth Avenue
Portland, Oregon 97204

Re: Solid Waste Facilities Tax Credit

Dear Mr. Synak:

In reply to your October 25, 1978 memorandum, I suggest the "substantial purpose" and "excess production" tests of ORS 468.155 be applied in order to answer your three questions.

To qualify for tax credit, a facility must come within the definition of "pollution control facility" set forth in ORS 468.155. To qualify originally, the facility must meet the "substantial purpose" test thereof and to qualify as an addition to an already qualified facility, it must meet the "excess production" test thereof. Thus, the "substantial purpose" test should be applied to the boiler and one dry kiln (original facility) and the "excess production" test to the generator (addition to a qualifying facility).

The few facts stated in your memorandum regarding the boiler and dry kiln do not seem to support a claim that a substantial purpose of their construction is the reduction of solid waste. However, you may have or will obtain additional evidence of such substantial purpose for the construction of this combined facility.

As to the generator, it must be determined whether this addition to an originally qualifying facility will increase the production of energy over the amount being produced by

the original facility. While the statute is not clear on the point, it seems that the intent was to make the original productive capacity the base against which to determine whether there is such an increase. In other words, the base is not the amount which historically has been produced by the original facility, which would have been within the control of the tax credit applicant, but the capacity of the original facility. Since your memorandum states that the original design capacity of the boiler would not be exceeded in order to supply the generator with sufficient steam, it does not appear that the addition of the generator would be eligible for tax credit under ORS 468.155(d).

Your memorandum refers to an increase in the amount of wood waste to be burned due to the installation of the generator, in the one company's case, and by the addition of a second or more dry kilns in the case of the second company. However, I do not find in ORS 468.155 a basis for using an increase in the amount of wood waste burned as a criteria for determining tax credit eligibility for additions to qualifying facilities.

Based on the foregoing considerations, and limited to the few facts set forth in your memorandum, I would answer your questions 1 and 3 in the negative and question 2 in the negative unless you find that the boiler and one dry kiln meet the substantial purpose test.

Please let me know if you have further questions about this matter.

Sincerely,

Raymond P. Underwood
Chief Counsel

ej

cc: Mr. Mike Downs

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Ray Underwood thru Mike Downs

Date: October 25, 1978

From: Milan Synak

Subject: Solid Waste Facility Tax Credit

Under ORS 468.155 to 468.190, an entire pollution control facility or portion thereof can qualify for tax credit. The Department needs to make a policy decision on the addition of auxiliary equipment to an eligible system.

A certain company previously received a tax credit for a hog fuel boiler. Steam from the boiler was utilized directly in a paper mill. Recently a steam turbine (generator) was installed to generate electricity. The generator also uses steam from the boiler. Therefore, the boiler is able to utilize more wood waste, but only up to its original design capacity.

Another company is installing a hog fuel boiler and dry kiln(s) to dry green lumber. To do this, the boiler and the dry kiln(s) act as an integrated system. The company would not install the boiler without the dry kiln, since they have no other use for the steam. Kilns use steam from the boiler. The bigger the kiln or the greater the number of kilns, the more steam (and therefore more wood waste) is utilized.

In both cases, the boilers are utilizing wood waste to generate steam and the other equipment utilizes that steam and allows the boiler to operate at full capacity. The questions we are asking are:

1. Is the generator eligible for tax credit since more wood waste is now used, even though the original design capacity of the boiler is not exceeded?

2. Is the dry kiln(s) eligible for tax credit, due to the fact that it is an integral part of the utilization unit?

3. If the first dry kiln(s) doesn't qualify, would future additional dry kilns qualify (if they result in increased utilization of solid wastes, but not beyond the original capacity of the boiler)?

Your informal opinion on this matter would be highly appreciated.

MS:mt
cc: Ray Underwood
Mike Downs

DEQ-1

JAMES A. REDDEN
ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

PORTLAND DIVISION
500 Pacific Building
520 S.W. Yamhill
Portland, Oregon 97204
Telephone: (503) 229-5725

July 24, 1978

Mr. Ernest Schmidt
Department of Environmental
Quality
Yeon Building
522 S.W. Fifth Avenue
Portland, Oregon 97204

Re: Lease as a basis for tax credit for pollution control facilities

Dear Ernie:

Since sending my July 7, 1978 letter to you regarding the above matter, I have been advised that the Department has previously issued tax credit certificates to lessees of pollution control facilities, beginning in the 1960's, prior to the time I began representing the Department.

I called the Audit Division of the Department of Revenue today and talked with a person in the Corporation Audit Section who was familiar with the handling of the DEQ tax credit certificates. He advised me that the Revenue Department honored tax credit certificates of either the lessor or lessee of the pollution control facilities insofar as the individual personal income tax and corporation excise tax were concerned, notwithstanding that ORS 316.097 (providing personal income tax credit for pollution control facilities) and ORS 317.072 (providing corporation excise tax credit for pollution control facilities) provide that the credit shall be "for taxpayers owning a pollution control facility or facilities certified."

In view of the past course of interpretation of the pollution control facilities tax credit statutes by DEQ and the Department of Revenue, I would recommend that DEQ not withhold tax credit certification solely on the ground that

the applicant is a lessee of the pollution control facilities, rather than the owner thereof. However, it is important that tax credits not be obtained by both the lessor and the lessee, as the Department of Revenue emphasizes. Therefore, the lessee applicant must provide DEQ with a copy of the complete and current lease agreement on the subject facilities and a notarized statement from the lessor acknowledging that only one tax credit will be allowed for the subject facilities and authorizing the lessee to take any allowable credit thereon.

Please let me know if you have further questions regarding this matter.

Sincerely,

Ray Underwood

Raymond P. Underwood
Chief Counsel

ej

cc: Mr. Milan Synak
Mr. Michael J. Downs, w/enc.

JAMES A. REDDEN
ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

PORTLAND DIVISION
500 Pacific Building
520 S.W. Yamhill
Portland, Oregon 97204
Telephone: (503) 229-5725

July 7, 1978

Mr. Ernie Schmidt
Department of Environmental
Quality
Yeon Building
522 S.W. Fifth Avenue
Portland, Oregon 97204

Re: Lease as a basis for tax credit for pollution control facilities

Dear Ernie:

You inquired whether the cost of leasing of pollution control facilities would qualify for pollution control facilities tax credit. Both the language and ostensible purpose of the pollution control facilities tax credit statute (ORS 468.150 to 468.190) indicate a negative answer to the question.

ORS 468.165(1) provides that any person may apply to the commission for certification under ORS 468.170 of a pollution control facility or facilities or portion thereof erected, constructed or installed by him in Oregon if certain statutory conditions are met. There is other language in these statutes which indicates that the tax credit applicant is to be the owner, not the lessee, of the pollution control facility which is the subject of the application for tax credit. A different interpretation could lead to the possibility that both the owner and the lessee of the facilities might be eligible for tax credit for the same facility and this surely was not the intention of the legislature. Nor do I think that a lease with an unexercised option to purchase would qualify the facility

for a tax credit. The actual cost of the facility to the owner thereof would be the subject of the tax credit.

Please let me know if you have further questions about this matter.

Very truly yours,

JAMES A. REDDEN
Attorney General

Ray Underwood

Raymond P. Underwood
Chief Counsel

ej

To: Mike Downs for comment

Oregon Sanitary Service Institute
4645 18th Pl. S., Salem, Oregon 97302 Phone 399-7784

Research
Standards
Service

June 26, 1978

TO: MILAN SYNAK
BILL BREE
ERNIE SCHMIDT

RE: LEASE AS A BASIS FOR TAX CREDIT FOR POLLUTION FACILITIES

PRIVATE FINANCING IS TO BE USED TO PURCHASE 3 CONSUMAT INCINERATORS FOR USE IN GOLD BEACH AND BROOKINGS, OREGON BY PETE SMART, MY PRINCIPAL COLLECTOR IN THOSE TWO AREAS.

THE FINANCING PLAN DEVELOPED BY WASTE MANAGEMENT CONSULTANTS, INC. FOR MR. SMART IS TO LEASE THOSE EQUIPMENT ITEMS AND A BUILDING TO BE BUILT.

ASSUMING THAT MR. SMART IS SUCCESSFUL IN ADDING HOT WATER OR STEAM RECOVERY, THAT IS ENERGY RECOVERY, TO THESE UNITS AND THAT EQC WOULD APPROVE THEM FOR TAX CREDITS, THERE IS STILL THE QUESTION OF THE LEASE. MR. SMART HAS PAID $30,000 DOWN ON THE UNITS ON A TOTAL INVESTMENT OF BETWEEN $400,000 and $500,000. HE HAS NOT YET LEASED AND COULD POSSIBLY CHANGE FINANCING IF WE HAVE AN ANSWER QUICKLY.

1. DOES A LEASE QUALIFY FOR TAX CREDITS FOR POLLUTION ABATEMENT FACILITIES FOR SOLID WASTE IN OREGON?

2. WOULD THE ANSWER BE DIFFERENT IF THE LEASE DOCUMENT SPECIFIED THAT THE EQUIPMENT COULD BE PURCHASED AT THE END OF THE LEASE PERIOD FOR A SPECIFIED SUM? IF THERE WERE AN AGREEMENT NOW?

LEASING MAY BE A BASIS FOR OTHER SIMILAR PROJECTS AND WE BELIEVE THE ANSWER WOULD BE OF GENERAL INTEREST IN THIS INDUSTRY AND TO OTHERS INTERESTED IN RESOURCE RECOVERY PROJECTS.

SINCERELY YOURS,

ROGER EMMONS, EX. DIRECTOR

CC: PETE SMART
TOM DONANCA, GENERAL COUNSEL, AOI

JAMES A. REDDEN
ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

PORTLAND DIVISION
500 Pacific Building
520 S.W. Yamhill
Portland, Oregon 97204
Telephone: (503) 229-5725

June 14, 1978

Mr. Mike Downs
Department of Environmental
Quality
Yeon Building
522 S.W. Fifth Avenue
Portland, Oregon 97204

Re: Applications for Preliminary Tax Credit Certification

Dear Mike:

This letter responds to your June 6, 1978 memorandum to me requesting an informal legal opinion as to the questions stated therein.

1. ORS 468.175 provides that the request by an applicant for preliminary tax credit certification "shall be in a form prescribed by the department." In view of this provision, it seems to me that the Department has some flexibility in determining what constitutes a "request." If the Department is satisfied with a verbal request or a written request not on Form No. DEQ/TC-1-10/77, I believe that request may satisfy the statute, though the better administrative practice may be to see that said form is used by each applicant. Such request, in form satisfactory to the Department, would then be followed by the submission by the applicant of the necessary information leading to consideration of the preliminary tax credit certification by the Department pursuant to ORS 468.175.

2. It is my opinion that the statute requires, as a jurisdictional matter, the filing of a request for preliminary certification with DEQ before commencement of erection, construction or installation of the facility. ORS 468.175(1).

Thus, if the request, whether oral or written or on the DEQ form, is given after such commencement, there can be no preliminary tax credit certification.

You asked me to consider the following circumstances when responding to the questions above:

(a) Applicant was unaware of the requirements of ORS 468.175(1). Ignorance of the law by the applicant would be no excuse for not meeting the requirements of ORS 468.175(1).

(b) Applicant verbally requested agency staff for preliminary certification. As indicated above, this might be acceptable by the Department as a "request."

(c) Applicant filed a written request for preliminary certification on the wrong form or in a letter. As indicated above, it would be within the discretion of the Department under the statute to determine whether a satisfactory "request" had been made.

(d) Agency staff has mistakenly told applicant that he didn't need to file a request for preliminary certification. If the applicant's action did not constitute a "request," as indicated above, the fact that the applicant had been misled by the agency staff would not eliminate the statutory requirement of request prior to commencement of erection, construction or installation of the facility. Nor would it eliminate the requirement of ORS 468.170 for preliminary tax credit certification prior to final certification.

3. Yes, sec 2, ch 831, Or Laws 1973 (now a part of ORS 468.175) did apply to solid waste pollution control facilities constructed after the effective date of that 1973 Act, unless the erection, construction or installation of

the pollution control facility was begun before the effective date of that 1973 Act. Secs 3 and 4, ch 831, Or Laws 1973.

4. Sec 2, ch 831, Or Laws 1973, provided that the notice of construction required to be filed with the Department of Environmental Quality "shall be in a form prescribed by the department." Therefore, the same reasoning which I have applied to previous questions would apply here and I believe it would be within the discretion of the Department to determine whether what the applicant filed was a "notice of construction" within the meaning of the statute. However, if the applicant's action did not constitute a "notice of construction," the fact that the applicant had been misled by the agency staff would not eliminate the statutory requirement of prior notice of construction.

Both under sec 2, ch 831, Or Laws 1973, and ORS 468.175 the Department must determine whether to issue a preliminary tax credit certification following its receipt of the proper notice or request.

Please let me know if you have further questions regarding this matter.

Very truly yours,

JAMES A. REDDEN
Attorney General

Raymond P. Underwood

Raymond P. Underwood
Chief Counsel

ej

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Ray Underwood

Date: June 6, 1978

From: M. Downs

Subject: Request for Informal Legal Opinion on Necessity for Applicant to File Formal Written Application Pursuant to ORS 468.175(1)

ORS 468.175(1) states:

"Any person proposing to apply for certification of a pollution control facility pursuant to ORS 468.165, before the commencement of erection, construction or installation of the facility, shall file a request for preliminary certification with the Department of Environmental Quality. The request shall be in a form prescribed by the Department."

The Department has administratively developed form number DEQ/TC-1-10/77, copy attached, for applicants to use when requesting preliminary certification. This form has not been adopted by the EQC as an Administrative Rule.

Would you prepare an informal legal opinion responding to the following questions:

1. Under what circumstances, if any, may the Commission certify a pollution control facility for tax credit when the applicant has never filed a request for preliminary certification on Department form number DEQ/TC-1-10/77? Assume that construction was commenced after the effective date of ORS 468.175.

2. Under what circumstances, if any, may the Commission/Department issue a preliminary certification when the applicant has filed his request on a form number DEQ/TC-1-10/77 after he has commenced erection, construction or installation of the facility? Assume that construction was commenced after the effective date of ORS 468.175.

Please address at least the following circumstances when responding to the questions above:

a. Applicant was unaware of the requirements of ORS 468.175(1).

b. Applicant verbally requested agency staff for preliminary certification.

c. Applicant filed a written request for preliminary certification on the wrong form or in a letter.

d. Agency staff has mistakenly told applicant that he didn't need to file a request for preliminary certification.

Section 2, Chapter 831, Oregon Laws 1973 reads:

> "(1) Any person proposing to apply for certification of a pollution control facility pursuant to ORS 449.625, before the commencement of erection, construction or installation of the facility, shall file a notice of construction with the Department of Environmental Quality. The notice shall be in a form prescribed by the department."

Apparently, the Solid Waste Division did not believe that this section applied to solid waste pollution control facilities and has instructed applicants that they need not file a notice of construction to be eligible for tax credit certification. Based upon this information respond to the following questions in your informal opinion:

3. Did Section 2, Chapter 831 apply to solid waste pollution control facilities constructed after the effective date of the Act?

4. Can the Commission certify solid waste facilities for tax credit for which the applicant never filed a notice of construction in reliance on the statement of solid waste staff that one was not needed?

These questions arise as a result of three applications considered by the EQC at its May 26, 1978 meeting. These applications have been deferred to the June 30th meeting for action pursuant to the answers you give to the questions above. Please respond, if possible, by June 14, 1978. Copies of the staff reports have been attached for your information.

We are currently checking the tax credit files to determine if the EQC has previously approved tax credit certifications under any of the circumstances listed above. We will forward that information to you as soon as it becomes available.

/cs

Attachments
DEQ/TC-1-10/77
TC Applications T-877 & T-964 Review Reports
Preliminary Certification Review Report

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Ray Underwood

Date: 6/7/78

From: M. Downs MJD

Subject: Supplemental Information to June 6, 1978 Request for Informal Opinion on Tax Credit Statutes, ORS 468.175(1)

ORS 468.175, requiring preliminary certification became effective September 13, 1975. From that date until approximately March 1976, no forms were available for applicants to use to request preliminary certification. During that period of time preliminary certification was requested by letter.

In March 1976, the Department began requiring use of form number DEQ/TC-1-1/76. That form was revised in October 1977 to form number DEQ/TC-1-10/77 which is still in use. A copy of form DEQ/TC-1-1/77 is attached.

Section 2, Chapter 831, Oregon Laws 1973, requiring notice of construction, became effective October 5, 1973. From that date until preliminary certification requirements superceded it, only the Air Quality Division had a notice of construction form. The Water Quality Division required a letter requesting construction approval. As was stated in the June 6th memo, the Solid Waste Division did not require construction approval.

/cs
Attachment

JAMES A. REDDEN
ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

PORTLAND DIVISION
500 Pacific Building
520 S.W. Yamhill
Portland, Oregon 97204
Telephone: (503) 229-5725

April 27, 1978

Mr. William H. Young
Department of Environmental Quality
Yeon Building
522 S.W. Fifth Avenue
Portland, Oregon 97204

Re: Pollution Control Facilities Tax Credit Statutes

Dear Bill:

In your February 23, 1978 memorandum to me, which I received on April 10, 1978, you requested that we give you an informal legal opinion on six questions regarding the preliminary certification requirements of ORS 468.175 and 468.180, being a portion of the pollution control facilities tax credit statutes (ORS 468.150 to 468.190). The following are the questions and my responses thereto.

1. Must a person proposing to apply for certification of a pollution control facility pursuant to ORS 468.165 be issued a preliminary certificate of approval, pursuant to ORS 468.175, before the commencement of erection, construction or installation of the facility?

ORS 468.175(1) requires that the applicant for tax credit certification file a request for preliminary certification with DEQ "before the commencement of erection, construction or installation of the facility." It is noted that this language does not include the requirement that the preliminary certificate be issued by DEQ prior to the commencement of erection, construction or installation of the facility. ORS 468.180(1) and 468.170(4) include a provision that the facility for which tax certification is sought must have been erected, constructed

or installed "under a certificate of approval issued pursuant to ORS 468.175." However, I do not regard this language as meaning that no part of the erection, construction or installation could have preceded the issuance of the preliminary certificate. Nor do I find any other provision in ORS 468.150 to 468.190 which indicates such a legislative intent. Therefore, it is my conclusion that, while the request must be made for the preliminary certification prior to the erection, construction or installation of the facility, there is not a statutory requirement that the preliminary certificate must have been issued prior to the commencement thereof. Of course, the applicant who commences erection, construction or installation of the facility prior to obtaining issuance of the preliminary certificate does so at the risk that the preliminary certificate will not later be approved, with the consequent loss of the tax credit benefit which the applicant had anticipated.

2. Must the pollution control facility be designed such that it can reasonably be expected to comply with the applicable statutes and regulations of the Department in order to be issued preliminary certification, or is it merely necessary that the facility be designed to a substantial extent for the purpose of preventing, controlling or reducing pollution? (Compare the language in ORS 468.170(4) with ORS 468.175(3).)

ORS 468.155 defines "pollution control facility" to have as a substantial purpose of its use, erection, construction or installation, the prevention, control or reduction of air, water or noise pollution or solid waste by:

> "(a) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468.700;
>
> (b) The disposal or elimination of or redesign to eliminate air contaminants or air pollution or air contamination sources and the use of air cleaning devices as defined in ORS 468.275;
>
> (c) The substantial reduction or elimination of or redesign to eliminate noise pollution or noise emission sources as defined by rule of the commission; or

> (d) The use of a resource recovery process which obtains useful material or energy resources from material that would otherwise be solid waste as defined in ORS 459.005. For the purposes of ORS 468.155 to 468.190, 'solid waste facility' shall also include subsequent additions, made either to an already certified facility or to an operation which would have qualified as a facility but for the fact that it was erected, constructed or installed prior to January 1, 1973, which will increase the production or recovery of useful materials or energy over the amount being produced or recovered by the original facility whether or not the materials or energy produced or recovered are similar to those of the original facility."

ORS 468.175(3) provides that if DEQ determines that the proposed erection, construction or installation of such facility is in accordance with the provisions of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745, ORS chapter 468 and ORS chapters 459 and 467 and applicable rules or standards adopted pursuant thereto, it shall issue a preliminary certificate approving the erection, construction or installation. ORS 468.180(1) requires such issuance of a preliminary certificate before EQC can issue a final certificate under ORS 468.170(4).

ORS 468.170(4) provides that EQC may issue a tax credit certificate for the completed facility if there has been a preliminary certificate of approval properly issued and if EQC finds the facility "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, and that the facility is necessary to satisfy the intents and purposes of" the above-designated statutes and rules.

Therefore, it is my opinion that the proposed facility, in order to obtain a preliminary tax credit certification, must be in accordance with the provisions of the above-designated statutes and rules or standards and, in order for

it to obtain a final certification by EQC, must be necessary to satisfy the intents and purposes of the above-designated statutes, rules or standards.

In summary, the facility must meet the "substantial purpose" test in order to be eligible for consideration for preliminary and final tax credit certification and, in addition, be in accordance with and necessary to satisfy the intents and purposes of the above-designated statutes, rules or standards. It is not merely required that the facility be designed to a substantial extent for the purpose of preventing, controlling or reducing pollution.

3. Can preliminary certification be denied on the grounds that the facility proposed for construction is not a reasonable or cost effective solution to the pollution problem involved?

I do not read the pollution control facilities tax credit statutes to permit denial of certification because DEQ or EQC deems the facility not the most reasonable or cost effective solution to the pollution problem it is designed to deal with. The tests set forth in the pollution control facilities tax credit statutes do not appear to me to include a requirement that the facility be the most reasonable or cost effective way to deal with the problem. Of course, the statutory tests, including those described in previous answers above, must be met by the facility.

4. If it is obvious on the face of a request for preliminary certification that erection, construction or installation of the pollution control facility was commenced before the request was made, can the request be rejected by the Department as incomplete (legally flawed) and not processed further, or must the EQC deny the request to ensure that preliminary certification is not automatically granted after 60 days? (See ORS 468.175(1) and (4).)

In this situation, I think the request can be rejected by the DEQ as incomplete, because not in compliance with ORS 468.175(1), and not processed further, except that I would recommend that the applicant be given prompt written notice thereof. EQC would not have to deny the request in order to ensure that preliminary certification is not automatically granted after 60 days. See ORS 468.175(4).

Of course, DEQ must be careful that it has not, by actions of staff people, caused the applicant to understand that the applicant's request, though of an informal nature, has been received by DEQ prior to construction.

5. Must a person proposing to apply for certification of a noise pollution control facility pursuant to ORS 468.165 have filed a request for preliminary certification before commencement of erection, construction or installation of the facility if construction was commenced after January 1, 1977 and before October 4, 1977 (effective date of 1977 amendments)?

The answer to this question is in the negative. The 1977 amendments did not become effective until October 4, 1977. Thereafter, it was required that the filing of the request for preliminary certification for a noise pollution control facility precede the commencement of erection, construction or installation of the facility. On the other hand, the 1977 amendments did provide that facilities for noise pollution control erected, constructed or installed on or after January 1, 1977, were to get the benefit of tax credit certification. To give an affirmative answer to this question would be contrary to the express intent of the legislature to give tax credit certification to otherwise eligible noise pollution control facilities which were erected, constructed or installed between January 1, 1977, and October 4, 1977, as well as to those erected, constructed or installed, thereafter.

6. Is the hearing required under ORS 468.175(5) a contested case type hearing?

Yes, because ORS 468.175(5) states that "the hearing shall be conducted in accordance with the applicable provisions of ORS chapter 183." The only type of administrative hearing provided for in that chapter is a contested case hearing.

Please let me know if you have further questions about the foregoing subject.

Very truly yours,

JAMES A. REDDEN
Attorney General

Raymond P. Underwood

Raymond P. Underwood
Chief Counsel

ej

cc: Mr. Mike Downs

ROBERT W. STRAUB
GOVERNOR

Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

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

MEMORANDUM

To: Ray Underwood Date: 2/23/78

From: William H. Young

Subject: Request for Informal Opinion on Questions Regarding Pollution Control Facilities Tax Credit Statutes

Please prepare a written informal legal opinion on the following questions regarding the preliminary certification requirements contained in ORS 468.175 and 468.180 of the Pollution Control Facilities Tax Credit Statutes, ORS 468.150 through 468.190:

1. Must a person proposing to apply for certification of a pollution control facility pursuant to ORS 468.165 be issued a preliminary certificate of approval, pursuant to ORS 468.175, before the commencement of erection, construction or installation of the facility? 468.170(4) constructed under a certificate of approval

No, but goes ahead at own risk

2. Must the pollution control facility be designed such that it can reasonably be expected to comply with the applicable statutes and regulations of the Department in order to be issued preliminary certification, or is it merely necessary that the facility be designed to a substantial extent for the purpose of preventing, controlling or reducing pollution? (Compare the language in ORS 468.170(4) with ORS 468.175(3).)

Get R.U. copy of A.G. opinion

3. Can preliminary certification be denied on the grounds that the facility proposed for construction is not a reasonable or cost effective solution to the pollution problem involved?

No, unless not in accordance with

4. If it is obvious on the face of a request for preliminary certification that erection, construction or installation of the pollution control facility was commenced before the request was made, can the request be rejected by the Department as incomplete (legally flawed) and not processed further, or must the EQC deny the request to ensure that preliminary certification is not automatically granted after 60 days? (See ORS 468.175(1) and (4).)

Former, but exceptions

5. Must a person proposing to apply for certification of a noise pollution control facility pursuant to ORS 468.165 have filed a request for preliminary certification before commencement of erection, construction or installation of the facility if construction was commenced after January 1, 1977 and before October 4, 1977 (effective date of 1977 amendments).

No.

6. Is the hearing required under ORS 468.175(5) a contested case type hearing?

Yes

MJD:cs

EQ-1

JAMES A. REDDEN
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

PORTLAND DIVISION
555 State Office Building
Portland, Oregon 97201
Telephone: (503) 229-5725

April 1, 1977

Mr. Michael Downs
Department of Environmental
Quality
Terminal Sales Building
1234 S.W. Morrison
Portland, Oregon 97205

Re: Tax Credit Application T-817 - Winter Products Company

Dear Mike:

In reply to your memorandum to me of March 14, 1977, it is my view that the Winter Products Company was required to obtain precertification for the facility in question, as required by ORS 468.175. This statute uses the "commencement of erection, construction or installation of the facility" as the critical point before which a request for preliminary certification must be made. This statute became effective on October 5, 1973, as to facilities not commenced on or before that date. As of that date, the only evidence of "commencement of erection, construction or installation of the facility" are copies of purchase orders for the facility dated prior to October 1973. Such orders, without more, would not constitute the "commencement of erection, construction or installation of the facility" in my opinion. Therefore, erection, construction or installation began after ORS 468.175 became effective on October 5, 1973. Consequently, the company, having failed to obtain the precertification for the facility required by ORS 468.175, is not now eligible for the tax credit for which it has applied.

Please let me know if you have further questions about this matter.

Sincerely,

JAMES A. REDDEN
Attorney General

Raymond P. Underwood

RAYMOND P. UNDERWOOD
Chief Counsel

ej

cc: Mr. William Young
Mr. Harold Sawyer
Mr. Richard Nichols

JAMES A. REDDEN
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

PORTLAND DIVISION
555 State Office Building
Portland, Oregon 97201
Telephone: (503) 229-5725

April 1, 1977

Mr. Michael Downs
Department of Environmental
Quality
Terminal Sales Building
1234 S.W. Morrison
Portland, Oregon 97205

Re: Tax Credit Application T-817 - Winter Products Company

Dear Mike:

In reply to your memorandum to me of March 14, 1977, it is my view that the Winter Products Company was required to obtain precertification for the facility in question, as required by ORS 468.175. This statute uses the "commencement of erection, construction or installation of the facility" as the critical point before which a request for preliminary certification must be made. This statute became effective on October 5, 1973, as to facilities not commenced on or before that date. As of that date, the only evidence of "commencement of erection, construction or installation of the facility" are copies of purchase orders for the facility dated prior to October 1973. Such orders, without more, would not constitute the "commencement of erection, construction or installation of the facility" in my opinion. Therefore, erection, construction or installation began after ORS 468.175 became effective on October 5, 1973. Consequently, the company, having failed to obtain the precertification for the facility required by ORS 468.175, is not now eligible for the tax credit for which it has applied.

Please let me know if you have further questions about this matter.

Sincerely,

JAMES A. REDDEN
Attorney General

Raymond P. Underwood

RAYMOND P. UNDERWOOD
Chief Counsel

ej

cc: Mr. William Young
Mr. Harold Sawyer
Mr. Richard Nichols

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Ray Underwood

Date: 3/14/77

From: Mike Downs

Subject: Tax Credit Application T-817, Winter Products Company

At the February 25, 1977 EQC meeting, the Commission approved the tax credit application of Winter Products Company on the condition that the Attorney General's office found that it was not issued illegally.

The issue is whether the Department's conclusion that the Company was not required to obtain preacertification for the facility, as required by ORS 468.175, is correct. A copy of the staff report to the EQC is attached.

The Department based its conclusion on the fact that the applicant submitted copies of purchase orders for the facility dated prior to October 1973, indicating its commitment to construct before ORS 468.175 went into effect. However, the claimed facility was not completed and put into operation until December 1974.

Would you please review the facts in this case and issue an informal letter opinion on the legality of the tax credit approval action by the EQC. Dick Nichols (229-5374) is the staff member who reviewed the application and wrote the staff report. Please contact him for further factual details.

/cs

cc: Hal Sawyer
Dick Nichols
Bill Young

DEQ 4

Appl T-817

Date 12/28/76

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Winter Products Company
3604 S. W. Macadam Avenue
Portland, Oregon 97201

The applicant owns and operates a furniture hardware manufacturing plant on Macadam Avenue in Portland, Oregon in Multnomah County.

The application was received August 31, 1976.

2. Description of Claimed Facility

The facility claimed in this application consists of a 3670 square foot building containing both waste control facilities and oxidizing (production) facilities. Waste control facilities claimed include wastewater collection drains, collection sump, a 5,000 gallon settling tank, 3 Tamco electric mixers, 8 chemical transfer pumps, 1 Barrett centrifuge and associated valves, piping, and electrical controls. Also included are actual production facilities consisting of specially designed oxidizing and rinsing tanks, mechanical equipment for transferring product from one tank to another, and related controls.

The claimed facility was completed and put in operation in December, 1974.

Certification must be made under the 1969 Act and the percentage claimed for pollution control is 100%.

Facility costs: $144,286 (Accountant's certification was provided).

3. Evaluation of Application

The facility was installed as a result of pretreatment requirements of the City of Portland and was not a requirement of the state. Plans for the facility were not submitted to the Department for approval as required by ORS 468.175. The applicant has submitted copies of purchase orders dated prior to October, 1973, indicating its commitment to construct the facility before ORS 468.175 went into effect. Based on this information, the Department believes the Company was not required to obtain precertification of the facility as required by ORS 468.175.

Prior to the installation of the claimed facility, wastes from the oxidizing process were discharged untreated into the City of Portland sewer system. With the claimed facility, the Company has reduced the quantity of pollutants discharged to the sewer to comply with the City's sewer code (except cyanide which is slightly over the code requirement).

The Company claims the only economically viable solution for meeting the City's code requirements was moving the oxidizing process into a new building. The part of the building previously occupied by the oxidizing line had ceilings that were too low for a new rotating barrel drag-out system to be employed. This drag-out system keeps more oxidizing chemical in the oxidizing tanks rather than losing it into the rinse tanks. Water from the rinse tanks are the primary source of contaminated water.

The Company also claims that they could not have provided an adequate waste water collection system for the old oxidizing line without shutting the line down for several weeks. This would have caused them to shut the plant down also for several weeks. They claim that, due to the extreme competitiveness in their business, a shutdown for two weeks would cost them a good number of accounts.

The Company points out that the new oxidizing line does not have any additional production capability over their old line. The floor space devoted to the new oxidizing line is only 90 square feet over that used by the old line. The number of employees in the oxidizing process has not decreased due to mechanization of the process. Consequently, the Company has not benefitted economically with the installation of the claimed facility.

Based on the above statements, the Department believes the claimed facility should be considered entirely as pollution control facilities.

4. Director's Recommendation

It is recommended that a Pollution Control Facility Certificate bearing the costs of $144,286 with 80% or more of the cost allocated to pollution control be issued for the facility claimed in Tax Application No. T-817.

RJN:ts
1/11/77

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Ernie Schmidt Date: 3/24/77

From: Mike Downs

Subject: Ray Underwood's Response to My Memo of 3/14/77 re: Eligibility of a Paved Log Deck for Tax Credit

On March 22, 1977 Ray Underwood responded by telephone to my memo (copy attached) which posed two questions about the eligibility of a paved log deck for tax credit.

The first question was whether the entire paved area met the "substantial purpose" requirement of the statute. Ray's answer was that the question involved a factual determination that the Department was in the best position to make. Thus, he left that question to us to answer.

The second question was whether we could certify a portion of the facility proportional to the benefits received which are attributable to solid waste utilization. Ray's answer was that we could only certify a portion of a facility if we could physically identify that portion of the facility whose substantial purpose was utilization of solid waste. If, for example, only a portion of the paved log deck were set aside by the company to recover solid waste, and the substantial purpose for constructing that portion of the paved area were to recover and utilize solid waste, then that portion could be eligible for tax credit.

As I understand the situation, solid waste is recovered essentially from the entire surface of the paved area. Therefore, no single portion of the facility is set aside for solid waste recovery. So, if the facility is to qualify for tax credit it must be upon a factual determination that the entire paved area was constructed for the substantial purpose of utilizing what would otherwise be solid waste.

/cs

Attachment

cc: Milan Synak (w/att)
Bill Bree (w/att)
Ray Underwood (w/att)

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Ray Underwood

Date: 3/14/77

From: Mike Downs

Subject: Eligibility of a Paved Log Deck for Tax Credit

We have an application from a company that would like a tax credit for paving an area where logs are handled and stored. They have received precertification as required by ORS 468.175.

The issue in question revolves around whether the "substantial purpose of the facility is to utilize material that would otherwise be solid waste", as required by ORS 468.155(1) and (2) and ORS 468.165(1)(b)(A).

The actual cost of the claimed facility is approximately $500,000. However, an analysis of the benefits derived indicates that utilization of solid waste is a benefit, but not the most substantial benefit. Only about 20% of the benefits from the facility can be attributed to solid waste utilization. Other benefits, such as reduced maintenance, make the facility worthwhile to the company.

Questions:

1. Is the "substantial purpose" requirement of the statute met such that a tax credit for the full cost of the facility could be issued?

2. If not, could a portion of the facility be certified for tax credit proportional to the benefits received which are attributable to solid waste utilization (i.e., approximately $100,000)? No.

The staff thinks that the answer to the first question is no. The problem that makes the second question especially difficult to answer is that there is no logically identifiable portion of the facility that can be said to be specifically for the "substantial purpose" of utilizing solid waste. The claimed facility is a single unit, a paved area.

Would you please prepare an informal letter opinion addressing these questions if you think one is warranted. Otherwise, a phone call to me will be sufficient. If you need further factual details about the application, please contact Milan Synak (229-6015) or Ernie Schmidt (229-5356).

/cs

3/22/77 R.U.

Most [illegible] portion [illegible] identified as having substantial purpose of utilization of S.W.

cc: Ernie Schmidt
Milan Synak
Bill Bree

March 3, 1976

Mr. Loren Kramer, Director
Department of Environmental Quality
Terminal Sales Building
1234 S.W. Morrison St.
Portland, Oregon 97205

Re: Statutory responsibility of EQC and DEQ for policing sales or exchanges of pollution control facilities granted tax credit and nonuse of such facilities for pollution control purposes

Dear Bud:

Following our meeting in your office on March 1, 1976, I have checked the statutory provisions relating to the above subject and wish to advise you as follows.

Virtually identical provisions in the taxing statutes relating, respectively, to real and personal property, personal and corporation income, provide that upon any sale, exchange or other disposition of a pollution control facility, notice thereof shall be given to the EQC who shall revoke the certification covering such facility as of the date of such disposition. The transferee may apply for a new certificate under ORS 468.170. The provisions to which I refer are found in ORS 307.405(4), 316.097(10) and 317.072(10). It appears from the foregoing provisions that notice of such sale, exchange or other disposition shall be given by the holder of the certificate to the EQC and the EQC has no obligation to affirmatively seek out such sales, exchanges or other dispositions.

ORS 468.185(1)(b) provides for revocation by the EQC of a tax credit certificate for failure to operate the pollution control facility for the purpose specified in the certificate. In addition, there are provisions in the real and personal property,

personal income and corporation excise tax statutes (ORS 307.420, 316.097(5)(b) and 317.072(5)(b)) that the pollution control facility must have been in use and operation during the applicable tax period in order to get the tax benefit. These latter provisions would be policed by the tax authorities and the taxpayer failing to observe them might be liable for fraudulently claiming a tax benefit. Consequently, [redacted]

Please let me know if you have further questions about this matter.

Sincerely,

RAYMOND P. UNDERWOOD
Chief Counsel

ej

cc: Mr. E. Jack Weathersbee
Mr. Harold Patterson

LEE JOHNSON
ATTORNEY GENERAL

JAN 16 1976

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
PORTLAND DIVISION
555 STATE OFFICE BUILDING
PORTLAND, OREGON 97201
TELEPHONE: (503) 229-5725

January 16, 1976

Mr. Jack Weathersbee
Department of Environmental Quality
Terminal Sales Building
1234 S.W. Morrison
Portland, Oregon 97205

Re: Tax Credit Applications

Dear Jack:

I have the following responses to the questions concerning processing of tax credit applications which you raised in your January 7, 1976 memorandum to me.

1. The 120-day period provided for in ORS 468.170 begins to run upon the filing of an application form which is complete as provided in ORS 468.165(2) and, possibly, (3). (It is not clear from the language of subsections (2) and (3) that the need to supply such further information as the Director may require prior to the issuance of the certificate defers the commencement of the 120-day period until such further information is actually received by the Director. However, since such further information may take some time to obtain and review, it seems a fair interpretation of the statute that the 120-day time period would not begin to run until any subsection (3) requirement was also satisfied.) But, once the application filed is complete, the 120-day period would begin to run even before the Department notification of the applicant that the application was deemed by the Department to be complete.

2. If an application is rejected by the failure of the Commission to act, notice is not required by ORS 468.170, but I would suggest that written notice thereof be given nonetheless so as to provide a basis for the commencement of the running of the time provided in ORS 468.170(3) whereby the applicant may take an appeal from the Commission decision. The appeal procedure is operative according to ORS 468.170(3).

It appears to me that the 30-day notice provision of subsection (3) would be applicable to such appeal, particularly if notice is given of the Commission's failure to act, as suggested above. If such notice is not given, a 60-day period for the taking of an appeal is probably applicable pursuant to sections 15(1) or 16(2), chapter 759, Oregon Laws 1975, which cover petitions for judicial review of state administrative agency orders.

3. Determination and notice to applicant of the extent of eligibility for tax credit is made at the time of issuance of a certificate pursuant to ORS 468.170.

4. Although withdrawal and resubmission of applications are not covered specifically by the statutes, it seems by implication that an application could be withdrawn at any time or resubmitted at any time by the applicant. I know of no practical reason why this should not be the interpretation.

5. As to a preliminary certificate, no action can be taken until it is filed complete and I suggest that the Department advise the applicant if it finds the filed application incomplete and advise in what respects it is incomplete. If it is never completed, no action can be taken and, because the applicant would have been advised of its incompleteness, I do not think he could get the benefit of the provision as to failure of the Commission to order denial. If and when the application is made complete, the Department may issue the preliminary certificate, but if it does not do so, then the Commission must either order denial or the preliminary certificate will be considered to have been issued anyway after the running of the 60-day period provided in ORS 468.175(4).

As to a final certificate, no action may be taken until the applicant completes the application and the Department should advise him that it is not complete if it is not. When it is complete, only the Commission may act on it. Failure of the Commission to act constitutes rejection of the application according to ORS 468.170(2).

Please let me know if you have further questions about this matter.

Sincerely,

Ray Underwood

RAYMOND P. UNDERWOOD
Chief Counsel

ej

February 23, 1976

Mr. Richard L. Vogt
Department of Environmental Quality
Terminal Sales Building
1234 S.W. Morrison
Portland, Oregon 97205

Re: Open Field Burning Pollution Abatement Tax Credits - George Van Leeuwen

Dear Dick:

I have reviewed the material which you forwarded to me with your memorandum of February 18, 1976, and it appears to me that the statements in the Department letter of February 11, 1976 to Mr. Van Leeuwen correctly interpret section 15 of ch 559, Or Laws 1975 (Senate Bill 311) and ORS 468.180. They would appear to preclude a tax credit for the particular equipment to which Mr. Van Leeuwen refers in his October 20, 1975 letter to the Department. ORS 468.180 would preclude a tax credit for such equipment even if it would otherwise qualify for tax credit as a pollution control facility defined in ORS 468.155, as amended by ch 496, Or Laws 1975, for the prevention, control or reduction of solid waste by the use of a resource recovery process which obtains useful material or energy resources from the material that would otherwise be solid waste as defined in ORS 459.005.

I do not think the pollution tax credit laws in existence prior to the 1975 session of the Oregon Legislature would have made the subject equipment eligible for tax credit.

Please let me know if I can be of further assistance in this matter.

Sincerely,

RAYMOND P. UNDERWOOD
Chief Counsel

ej

Underwood

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: Ray Underwood cc: HMP, SAF 2/18/76

From: Richard L. Vogt

Subject: Open Field Burning Pollution Abatement Tax Credits
George Van Leeuwen

As per our telephone contact February 17, 1976, please find attached a copy of a letter received October 23, 1975 from Mr. George Van Leeuwen requesting action and information concerning pollution tax credits and the Department's response dated February 11, 1976.

As discussed, I received a telephone call from Mr. Mike Bakkela of the Farm Bureau in Salem on February 17, 1976. He was in receipt of a note from Mr. Van Leeuwen questioning the Department's interpretation on this matter. Mr. Bakkela has agreed to review Senate Bill 311, Section 15 and the appropriate sections of ORS 468.

Subsequent to this review, he intends to schedule a meeting through me with the appropriate Department staff to discuss pollution tax credits applicable to field burning.

In preparation for this meeting, a legal review by you of the staff's interpretation is appropriate. Also, please investigate the possible applicability of pollution tax credit laws in existence prior to Senate Bill 311 to equipment and practices used to reduce particulate emissions from open field burning.

/cs

5364

February 11, 1976

George Van Leeuwen
Route 1, Box 139
Halsey, Oregon 97348

Dear Mr. Van Leeuwen:

In reference to your letter of October 25, 1975 requesting information on tax credit applications, Section 15 of Senate Bill 311 states:

> Section 15. After alternative methods for field sanitation and straw utilization and disposal are approved by the committee and the department, "pollution control facility," as defined in ORS 468.155, shall include such approved alternative methods and persons purchasing and utilizing such methods shall be eligible for the benefits allowed by ORS 468.155 to 468.190.

At this point in time, only the pilot models of the present generation of mobile field sanitizers have been given approved alternative status by the Department. Bailers, trucks, tractors, etc. necessary for operation of mobile field sanitizers or used independently have not yet been considered by the Department or Committee for possible classification as approved alternatives and are not eligible for tax benefits at this time. It is expected that the Department and the Oregon Field Sanitation Committee will, in the near future, make a recommendation to the Environmental Quality Commission regarding these types of equipment and their relative worths as pollution control facilities.

In addition to the above, for equipment purchased on or after October 5, 1973, it is necessary to have received Department of Environmental Quality approval for the equipment claimed prior to its use (Ref. ORS 468.180(2)). The law eliminates the particular bailer of reference from eligibility.

Should the Committee and Department give approved alternative status to such equipment in the near future, and you subsequently purchase it, please find enclosed the appropriate Notice of Construction and Application for Approval - Preliminary Certification For Tax Credit form.

Finally, it should be pointed out that removal of straw, in itself, does not constitute a pollution control method, especially if the field is subsequently open burned. Only in concert with some relatively non-polluting operation such as plowing or using a mobile field sanitizer could such baling be considered an attempt at pollution control. However, the Department does wish to commend you for your efforts in disposing of waste rather than by burning. Hopefully, in the near future, there will be tax credit available as some consolation for your extra effort.

If you have any questions, please feel free to contact Scott Freeburn, at 16 Oakway Mall, Eugene, Oregon 97401; telephone 686-7837.

Sincerely,

LOREN KRAMER
Director

H. M. Patterson
Assistant Director
Air Quality Programs

SAF:ts
cc: Ron LeBlanc, Department of Revenue
cc: Scott A. Freeburn, Field Burning Program

October 20, 1975
Halsey, Oregon
Rt. 1, Box 139

Oregon Department of Environmental Quality
1234 S. W. Morrison
Portland, Oregon 97201

Gentlemen:

At the end of 1973 and early in 1974 I purchased a used New Holland 290 baler and a Schwartz bale accumulator and squeeze loader which have been used exclusdively for removing straw in conjunction with our efforts to contol and reduce open field burning of our grass seed fields. What further information or action do I need to present to receive the pollution control certification required by the State Income Tax Division to qulify for the Pollution Control Facility Credit on line 38 of the State Income Tax Form? Will appreciate receiving the information and applicable forms by return mail.

Sincerely yours,

Geo. Van Leeuwen

Geo. VanLeeuwen

369-2544

cc: Ron LeBlanc, Auditor, Department of Revenue

MAR 1 1976

ROBERT W. STRAUB
GOVERNOR

OFFICE OF THE GOVERNOR
STATE CAPITOL
SALEM, OREGON 97310

February 26, 1976

Mr. Loren Kramer, Director
Department of Environmental Quality
1234 S. W. Morrison
Portland, Oregon 97205

Dear Bud:

As I indicated in our conversation last week, we hope that the DEQ can ascertain and make available to growers information about what kinds of activities, processes, machines, or other expenditures contracted or to be contracted by growers might fall within the definition of "pollution control facility" and hence be certifiable for the purposes of entitling the grower to a tax credit under ORS 468.155 to 468.190.

Enclosed are copies of Chapter 496, Oregon Laws 1975, and Section 15 of Chapter 559, Oregon Laws 1975.

The law was specifically amended to include facilities if the substantial purpose of the use, erection, construction or installation is the prevention, control or reduction of solid waste. Means may include the disposal or elimination or redesign to eliminate air contaminants, or air pollution or air contamination sources; or the use of a resource recovery process which obtains useful material or energy resources from material that would otherwise be solid waste. Specially excluded is any solid waste facility or portion thereof whose substantial purpose is not the direct utilization of materials.

It appears that certification of a facility for air pollution control or for the prevention, control or reduction of solid waste may be accomplished by one of two means:

(a) approval by the Field Sanitation Committee and the DEQ of an alternative method of field sanitation, straw utilization or disposal, which entitles the alternative method to benefits under ORS 468.155 to 468.190; or

(b) if application is made to the EQC, approval of an air pollution control facility erected, constructed or installed on or after January 1, 1967; or approval of a solid waste facility under construction on or after January 1, 1973, the substantial purpose of which is to utilize material that would otherwise be solid waste by burning, mechanical process or chemical process or through the production, processing including presegregation, or use of materials for their heat content or other forms of energy of or from the material, or the use of materials which have useful chemical or physical properties which may be used for the same or other purposes, or materials which may be used in the same kind of application as its prior use without change in identity.

Because of the great variety of "facilities" including processes which might be eligible for tax credit certification by the Commission whether or not approved as "alternative methods" by the Committee and the Department, it would be helpful to develop a list of such facilities or processes relative to which a grass seed grower might make application to the Commission. To wait for the growers to make individual applications and develop this list on a case-by-case basis would be cumbersome and time consuming. Instead, we would hope that the EQC might on its own motion by rule indicate its willingness to certify certain types of facilities and processes, without precluding their willingness to consider other applications on a case-by-case basis.

A question has also been raised as to whether it is necessary to give notice by filing a request for preliminary certification before commencement of erection, construction or installation or purchase of a facility. This presents a related question as to whether a tax credit against 1975 income or property tax is obtainable for a facility built before or during 1975 for which certification is not sought until 1976 or later.

It appears to me that ORS 468.175 should be interpreted in a reasonable manner and that the legislature did not contemplate that "facilities" which might be some relatively exotic device or practice to eliminate air pollution or to obtain useful material from material that would otherwise be solid waste need be constrained by the advance notice requirement. The purpose of 468.175 was to give the DEQ an opportunity to review plans and specifications for large pollution control facilities before substantial capital expenditure had been undertaken.

With respect to the great variety of more modest expenditures which in one way or another will minimize the open field burning problem, it would seem that the Commission should be primarily interested in the fact that an expenditure was made in good faith for the purpose of minimizing air pollution and solid waste problems, whether or not totally effective in accomplishing that goal.

If it is your interpretation that some notice be given to the Commission, I would suggest that the requirements of ORS 468.175 be considered satisfied by provision of a list of likely expenditures, facilities, and processes prepared by the Field Sanitation Committee and approved by the Department, in effect putting the Commission on notice that these were likely subjects of application.

In order that farmers may make thoughtful expenditures prior to and during this growing season, the sooner such a list is developed and promulgated, the more benefit it will be to the growers and the more it will encourage the use of alternatives to open field burning and the constructive utilization of straw through removal and useful disposal.

Sincerely,

Janet

Janet McLennan
Assistant to the Governor
Natural Resources

JMc/jh
encl.
cc: Stafford Hansell
Senator John Powell
Scott Freeburn
Bill Rose

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: R. P. Underwood

Date: January 7, 1976

From: E. J. Weathersbee

Subject: Tax Credit Applications

We have questions concerning processing of Tax Credit Applications under ORS 468.155 through 468.190 and Chapter 496 Oregon Laws 1975 for which clarification is needed, as follows:

1) Does the 120 day time clock (within which the EQC must take action) start with the date of receipt of the application or on the date the Department notifies the applicant that the application is deemed to be "complete for processing"?

2) If an application is rejected by failure of the Commission to act, is notice required? Within what time frame? Is appeal procedure still operative? Within what time frame?

3) When does determination and notice to applicant of extent of eligibility for tax credit need to be made? At time of certification by the Department before construction under ORS 468.175 or at time of issuance of certification by the Commission after construction under ORS 468.180?

4) Can application be withdrawn by applicant? At any time? Re-submit? At any time?

5) Can Department reject an application on the basis of incomplete information or should this merely be a reason for staff recommendation to deny with the EQC actually taking the action to deny?

December 19, 1975

Mr. Loren Kramer, Director
Department of Environmental Quality
Terminal Sales Building
1234 S.W. Morrison
Portland, Oregon 97205

Re: Tax Credit Certificates

Dear Bud:

The question was raised at the December 12, 1975 Environmental Quality Commission meeting whether a tax credit application could be approved on condition. I understand that the possible condition would require an adjusting tax payment to the state if unanticipated profits were subsequently obtained from the operation of the pollution control facility which had been earlier approved for tax credit on the assumption of no such profits.

ORS 468.170(4), (5) and (6) are principally applicable here and provide as follows:

> "(4) If the commission finds that a pollution control or solid waste facility or portion thereof, for which an application has been made under ORS 468.165, was erected, constructed or installed under a certificate of approval issued pursuant to ORS 468.175 and in accordance with the requirements of 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 or water pollution or solid waste, and that the facility is necessary to satisfy the intents and purposes of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.315 to 454.355, 454.405 to 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter and rules thereunder, it shall certify such facility. No

determination of the proportion of the actual cost of the facility to be certified shall be made until receipt of the application. Where one or more facilities constitute an operational unit, the commission may certify such facilities under one certificate. A certificate under this section is effective for purposes of tax relief in accordance with ORS 307.405, 316.097 and 317.072 if erection, construction or installation of the facility was commenced prior to December 31, 1980. The commission shall attach to the front of each certificate a copy of the notice and election requirements imposed by subsection (5) of this section.

(5) A person receiving a certificate under this section shall make an irrevocable election to take the tax credit relief under ORS 316.097 or 317.072 or the ad valorem tax relief under ORS 307.405 and shall notify the commission, within 60 days after the receipt of such certificate, of his election. This election shall apply to the facility or facilities certified and shall bind all subsequent transferees. Failure to make a timely notification shall make the certificate ineffective for any tax relief under ORS 307.405, 316.097 and 317.072.

(6) Certification under this section of a pollution control facility qualifying under paragraph (a) of subsection (1) of ORS 468.165 shall be granted for a period of 10 consecutive years which 10-year period shall begin with the tax year of the person in which the facility is certified under this section, except that if the person elects ad valorem tax relief the provisions of ORS 307.405 shall apply. (Emphasis supplied)"

There appears to be no statutory authority provided for the Commission to impose such a condition upon its approval of a tax credit application and its issuance of a pollution control facility certificate. Further, the above-quoted statute indicates that the Commission must either unconditionally approve the application and issue the certificate or refuse to approve the application.

It should be noted that the statutes do provide some control after the certificate issuance in that the Commission may revoke the certificate pursuant to ORS 468.185 which provides in subsection (1) thereof as follows:

> "(1) Pursuant to the procedures for a contested case under ORS chapter 183, the commission may order the revocation of the certification issued under ORS 468.170 of any pollution control or solid waste facility, if it finds that:
>
> (a) The certification was obtained by fraud or misrepresentation; or
>
> (b) The holder of the certificate has failed substantially to operate the facility for the purpose of, and to the extent necessary for, preventing, controlling or reducing air or water pollution or solid waste as specified in such certificate. (Emphasis supplied)"

Please let me know if you or the Commission have further questions about this matter.

Sincerely,

RAYMOND P. UNDERWOOD
Chief Counsel

ej

cc: Mr. Joe Richards

August 13, 1974

Mr. F. A. Skirvin
Department of Environmental Quality
Terminal Sales Building
1234 S.W. Morrison
Portland, Oregon 97205

Re: California Liquid Gas Corporation - Tax credit inquiry of July 31, 1974

Dear Fritz:

A "pollution control facility" eligible for tax credit application under ORS 468.165 (formerly ORS 449.625) is defined in ORS 468.155 (formerly ORS 449.605) to include equipment or device reasonably installed by any person if a substantial purpose thereof is the prevention, control or reduction of air pollution by the elimination of air pollution or air contamination sources. Although I am not familiar with the propane carburetion equipment referred to by Cal Gas in its July 31, 1974 letter to Kess Cannon, it might well come within the definition of "pollution control facility" if the substantial purpose requirement can be met. Perhaps it cannot if the principal reasons for the installation and use of the equipment are advertising and special economy because Cal Gas manufactures the propane used in its own vehicles.

Cal Gas, in its July 31 letter, refers to the road tax exemptions in California and Washington. Ron Householder told me that he thinks the California statutes provide a specific exemption from the road tax for such vehicle equipment and the Washington statutes probably provide similarly. If so, those state statutes are distinguishable from the Oregon tax credit statutes.

Please let me know if you have further questions about this matter.

Sincerely,

RAYMOND P. UNDERWOOD
Chief Counsel
Portland Division

ej

cc: Mr. H. M. Patterson
Mr. Ron Householder

5288
5365

CAL GAS

A BILLINGHAM COMPANY

Mr. Kessler Cannon
Director
Department of Environmental Quality
1234 S.W. Morrison
Portland, Oregon 97205

July 31, 1974

Mr. Cannon:

California Liquid Gas Corporation has and continously installs on our own vehicles propane carburetion equipment that is certified for road tax exemption in California and Washington because of it's reduced emissions.

Would the DEQ accept an application for certification for this type of pollution control facility pursuant to ORS 449.625. Thank you.

Sincerely,

Ivan J. Coykendall
Northwest Division Manager

CALIFORNIA LIQUID GAS CORPORATION
... BOULEVARD / ALBANY, OREGON 97321 - NORTHWEST DIVISION / (503) 926-4441

July 9, 1974

Mr. Kessler Cannon, Director
Department of Environmental Quality
Terminal Sales Building
1234 S.W. Morrison
Portland, Oregon 97205

Re: Tax Relief Application No. T-549 - Fred E. Moe, Hood River, Oregon

Dear Mr. Cannon:

You have inquired whether the tax relief sought by Mr. Fred E. Moe under Tax Application No. T-549 is legally available in view of ORS 468.290, which excepts from most of Oregon's air pollution control laws all agricultural operations (excepting field burning), the use of agricultural equipment, the growing or harvesting of crops and the raising of fowls or animals. In my opinion, the answer is affirmative.

There is no language in ORS 468.155 to 468.190, governing pollution control facilities tax relief, which specifically excepts such facilities when used for agricultural operations or equipment from the benefits of these statutes. Further, ORS 468.155 defines "pollution control facility" or "facility" broadly enough to include the facility which is the subject of this tax relief application. And the legislative policy of these statutes, as set forth in ORS 468.160, is unqualifiedly "to assist in the prevention, control and reduction of air and water pollution in this state by providing tax relief with respect to Oregon facilities constructed to accomplish such prevention, control and reduction."

Statutes must, whenever possible, be construed together and in such manner as to be consistent. rather than in conflict, thus giving effect to both statutes. McClain v. Lafferty, 257 Or 553. There is no irreconcilable conflict between

the broadly inclusive legislative policy expressed in ORS 468.160 and the air pollution control exceptions for agriculture in ORS 468.290. Full effect can be given to both. The disposal or elimination of air pollution by a facility in an agricultural operation may be rewarded in the form of a tax credit under one statute though the control of such air pollution is denied by another statute. The legislature may implement a policy by the use of a carrot instead of, as well as in addition to, a stick.

Further, I have been advised that the Commission has approved seven quite similar tax relief applications by agriculturists between October 29, 1971, and October 12, 1973, which constitutes a course of administrative interpretation entitled to careful consideration by any court, particularly since the legislature took no action at its 1973 session to modify or reverse such administrative interpretation. Gouge v. David, 185 Or 437.

Please let me know if we can be of further assistance in this matter.

Sincerely,

RAYMOND P. UNDERWOOD
Chief Counsel
Portland Office

ej

January 3, 1974

Mr. Diarmuid F. O'Scannlain, Director
Department of Environmental Quality
Terminal Sales Building
1234 S.W. Morrison Street
Portland, Oregon 97205

Re: Hyster Company's Tax Relief Application No. T-433

Dear Diarmuid:

Hyster Company applied for tax relief under ORS 449.605 et seq. for its costs incurred in the installation of a pollution control facility consisting of three reduced pressure blackflow prevention devices and two doublecheck valve installations. This facility prevents industrial wastes produced at Hyster Company's Portland plant from entering the water supply of the city of Portland.

The Environmental Quality Commission, at its November 26, 1973 meeting, asked the Department staff to reconsider its recommended denial of the subject application and that a further opinion of legal counsel be obtained as to the legal eligibility of the subject application for tax relief.

ORS 449.605, as amended by section 30, chapter 835, Oregon Laws 1973, includes as a pollution control facility eligible for tax credit, a device reasonably installed by any person, if a substantial purpose of such installation is the prevention of water pollution by the elimination of industrial waste.

ORS 449.075(3), as amended by section 109, chapter 835, Oregon Laws 1973, defines water pollution to include alteration of the physical, chemical or biological properties of any waters of the state.

ORS 449.075(2), as amended by section 109, chapter 835, Oregon Laws 1973, defines industrial waste as "any liquid, gaseous,

radioactive or solid waste substance, or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources."

ORS 449.075(8), as amended by section 109, chapter 835, Oregon Laws 1973, defines waters of the state to include private, artificial, underground waters (except those private waters "which do not combine or effect a junction with natural surface or underground waters").

While the foregoing statutes require that waters of the state be the subject protected from pollution by the Hyster devices, the statutory definition of such waters would appear to include a municipal water system though the waters therein be regarded as private, rather than public. See Kliks v. Dalles City, 216 Or. 160 (1959). Because the waters in such municipal water system do combine, at the source, with natural surface or underground waters, they do not come within the exception for "those private waters which do not combine or effect a junction with natural surface or underground waters" and would qualify as waters of the state, in my opinion.

If the Department and the Commission determine that a substantial purpose of the proposed facility is to eliminate industrial waste, then it is my opinion that the subject application would be legally eligible for tax relief.

Please let me know if you have further questions about this matter.

Sincerely,

Raymond P. Underwood
Chief Counsel
Portland Office

ej

cc: Mr. Harold Sawyer

1/25/74 - [illegible]

Raymond P. Underwood
Chief Counsel

December 28, 1973

Arnold B. Silver
Assistant Attorney General & Counsel

Hyster Company Tax Relief Application
No. T-433

ORS 449.075(8) (Section 109 Chapter 835) defines the term "water" or "waters of the state", and this section also states it is applicable to the laws relating to water pollution.

ORS 449.605 to 449.655 (Sec 30 et seq Ch 835) continuously uses the words prevention or reduction of water pollution. Pollution control tax credits statutes are certainly laws relating to water pollution and when the term "water" is used we must look to ORS 449.075(8) for its meaning. As a result, I disagree with counsel for Hyster that the definition of "waters of the state" is inapplicable to pollution control tax credits. However, this does not answer the major question.

Upon examination of the issue and a review of the previous answer given April 30, 1971, I feel we should reverse this earlier conclusion. I reach this view on almost the same basis as utilized in reaching the opposite conclusion in 1971.

1. Water or waters of the state: include lakes, bays, impounding reservoirs, etc. and all other bodies of surface or underground waters, natural or artificial. Previously, it was said "include" could mean a word of limitation, as well as a word of enlargement or illustrative application. The water pollution control laws are to be liberally construed for the accomplishment of the policy expressed in ORS 449.077. This policy includes protection of drinking water and water supplies. Drinking water is a beneficial use to be protected in Oregon. (Section 110, 111, Chapter 835)

2. The term impounding reservoir is used in the definition of "waters of the state". If the "valves" installed by Hyster prevented direct discharge of industrial wastes into a reservoir of water there would be little doubt it prevented pollution of the waters of the state. Whether the valve prevents direct discharge into the reservoir or indirect discharge into a municipal water supply system (which includes reservoirs) appears to be a distinction without substantial merit.

3. Finally, I concur with Hyster's counsel that municipal

water is not expressly or impliedly excepted from the definition of "waters of the state" as defined by ORS 449.075.

The question is technical, rather than purely legal: Is the valve "equipment" or a "device" reasonably used or installed by a person for the substantial purpose to prevent, control or reduce water pollution by disposing or eliminating "industrial waste".

If the valve meets this test it should qualify for pollution tax credit.

cc

November 7, 1973

Mr. Bill Gildow
Department of Environmental Quality
Terminal Sales Building
1234 S. W. Morrison
Portland, Oregon 97205

Re: Pollution Control Certificate

Dear Bill:

In response to your memorandum of November 5, 1973, and the attached correspondence with Attorney Charles P. Duffy, please be advised that it is my view that a merger of a wholly-owned corporate subsidiary corporation into the parent corporation under Oregon corporation law does not constitute a "sale, exchange, or other disposition of a facility" within the meaning of ORS 316.097(10), as amended by chapter 831, Oregon Laws 1973. Title to the facility is changed from the subsidiary to the parent corporation by operation of law and without any transfer document. Therefore, revocation of the tax certificate and application for a new certificate is not required. However, I would suggest that a notation be made on the tax certificate that there had been a merger of the wholly-owned subsidiary corporation into the parent corporation and giving the names of both corporations and the date of the merger. A similar notation should also be made on the Department's records of the tax certificate.

I am returning your file herewith. Please let me know if you have further questions about this matter.

Sincerely,

Raymond P. Underwood
Chief Counsel
Portland Office

ej

Enc.

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMO

To: RPU

Date: November 5, 1973

From: WEG

Subject: Pollution Control Certificate

Please advise.

Bill

RECEIVED
NOV 6 1973
DEPARTMENT OF JUSTICE
PORTLAND, OREGON

ahe
Attachment

DEQ-16

SP*76014-340

LAW OFFICES OF
DUFFY, STOUT, GEORGESON & DAHL
1404 STANDARD PLAZA
PORTLAND, OREGON 97204
TELEPHONE 226-1371

CHARLES P. DUFFY
WALDEN STOUT
DONALD J. GEORGESON
JOYLE C. DAHL
DAVID A. KEKEL
RAY R. BENNER

Tax Credits Section

Appl. No. .....

Received OCT 25 1973

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

October 22, 1973

Mr. Larry Patterson
Department of Environmental Quality
State of Oregon
1234 S. W. Morrison
Portland, Oregon 97204

Dear Mr. Patterson:

As requested, I am enclosing a copy of my original letter of July 11 regarding the pollution control certificate now held by a subsidiary corporation. As indicated in the letter, it is proposed that this 100% owned subsidiary be merged into the parent corporation and we would like to avoid going through the procedure of having the certificate revoked and applying for a new certificate since there is no actual transfer of the facility.

If you have any further questions concerning this, please let me know.

Very truly yours,

Charles P. Duffy

CPD:im
Enc.

LAW OFFICES OF
DUFFY, STOUT, GEORGESON & DAHL
1404 STANDARD PLAZA
PORTLAND, OREGON 97204
TELEPHONE 226-1371

CHARLES P. DUFFY
WALDEN STOUT
DONALD J. GEORGESON
JOYLE C. DAHL
DAVID A. KEKEL
RAY R. BENNER

October 12, 1973

Department of Environmental Quality
State of Oregon
2585 State Street
Salem, Oregon 97301

Gentlemen:

May I please have a reply to my letters of July 11 and August 1, 1973, regarding ORS 316.097(6) and its nonapplication to the liquidation of a subsidiary into its parent corporation.

Very truly yours,

Charles P. Duffy

CPD:bt

July 11, 1973

Department of Environmental Quality
State of Oregon
2585 State Street
Salem, Oregon 97301

Gentlemen:

As you know, ORS 316.097(6) provides that "Upon any sale, exchange, or other disposition of a (pollution control) facility, notice thereof shall be given to the Environmental Quality Commission who shall revoke the certification covering such facility as of the date of such disposition. The transferee may apply for a new certificate under ORS 449.635, but the tax credit available to such transferee shall be limited to the amount of credit not claimed by the transferor."

A corporation holding such a certification is a wholly-owned subsidiary of another Oregon corporation. It is now proposed that the subsidiary will be liquidated into or merged with the parent corporation but otherwise the pollution control facility will be operated as it has been in the past.

It would appear that such a reorganization of these two corporations would not constitute a "sale, exchange or other disposition of a facility", but I will appreciate your opinion as to this. If possible, we would like to avoid going through the procedure of having the certificate revoked and applying for a new certificate, where there is no actual transfer of the facility.

Very truly yours,

CPD:bt

LEE JOHNSON
ATTORNEY GENERAL

DIARMUID F. O'SCANNLAIN
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
STATE OFFICE BUILDING
PORTLAND, OREGON 97201
TELEPHONE: (503) 229-5900

PORTLAND OFFICE

JOHN W. OSBURN
CHIEF COUNSEL

M. J. BELTON HAMILTON LEONARD W. PEARLMAN
GEORGE S. WOODWORTH
ASSISTANT ATTORNEYS GENERAL AND COUNSEL

GAYLE GEMMELL VICTOR LEVY
CLAYTON R. HESS ALBERT L. MENASHE
KENNETH L. KLEINSMITH ALLEN G. OWEN
GERALD C. KNAPP ARNOLD S. SILVER
THOMAS N. TROTTA
ASSISTANT ATTORNEYS GENERAL

VIRGIL D. HILLS
REGISTRAR OF CHARITABLE TRUSTS

September 1, 1970

Mr. Harold L. Sawyer
Department of Environmental Quality
State Office Building
Portland, Oregon 97201

Re: Certification of Pollution Control Facilities for Tax Relief

Dear Mr. Sawyer:

Your memorandum of August 28, 1970 raises the question of whether a facility claimed for pollution control must be in full compliance with the applicable regulations of the Department of Environmental Quality in order to qualify for certification for tax relief under ORS 449.605 to 449.645.

Implicit in your inquiry is the facility that may perform a pollution control function but does not fully comply with all rules of the Department.

Certainly, a part of the answer would stem from technical engineering determination, rather than legal interpretation. For example, an engineer would have to reach a conclusion that a given facility is not meeting technical requirements established by the Department. A further technical opinion would then have to be reached as to whether the facility performs any pollution control function whatsoever, notwithstanding the fact it does not meet all rules of the Department of Environmental Quality.

The definition of "pollution control facility" in ORS 449.605(1) states in part that it is any " * * * structure, building * * * reasonably used * * * erected * * * by any person if a substantial purpose of such use, erection * * * is the prevention, control or reduction of air or water pollution * * * ". (Emphasis supplied)

ORS 449.635 sets forth the conditions necessary to be met in order to receive certification. Subsection (3) provides that if the Environmental Quality Commission finds that a pollution control facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing,

controlling or reducing air or water pollution, and that the facility is necessary to satisfy the intents and purposes of ORS 449.635 and regulations thereunder, it shall certify such facility.

[redacted]

[redacted]

Each and every application must be considered upon its own merits with all factors constituting elements for certification evaluated and studied.

If a specific application with appropriate facts is presented to the Department, the matter should be reevaluated at that time after an engineering determination has been reached that the facility does not comply with applicable rules either relating to pollution control or operational requirements.

Very truly yours,

LEE JOHNSON
Attorney General

Arnold B. Silver
Assistant Attorney General

ABS:eb

MEMORANDUM

Tax credit

Certification for Pollution Control Facilities Not in Operation

FACTS

Reynolds Aluminum (Troutdale) has applied to the Department of Environmental Quality for tax relief on their pollution control facilities pursuant to ORS 449.605 to 449.645. The application has been made subsequent to the firm closing down its operations in Troutdale, Oregon. As a result, the issue before the Department is whether a firm who has constructed or installed pollution control facilities is eligible for tax relief certification notwithstanding the facilities are not being operated to control or prevent pollution.

GENERAL DISCUSSION

ORS 449.605 defines a pollution control facility as including any building, installation or equipment reasonably used, constructed or installed if a substantial purpose thereof is the prevention, control or reduction of air or water pollution by disposal of industrial waste or air pollution.

It is interesting to note that the definition does not in itself provide the facility must be in operation for consideration for tax relief. If the building or equipment is constructed or installed with the substantial purpose of preventing pollution, an applicant is not necessarily excluded from eligibility.

ORS 449.625 and 449.635 set forth requirements for application and certification of the facility by the Environmental Quality Commission. ORS 449.625 states the application shall contain:

> "* * * the existing or proposed operational procedure (of the facility) * * * the purpose of pollution prevention * * * served or to be served by the facility * * * ". (Emphasis supplied)

The statute also allows the Commission to require additional information it deems necessary prior to issuing a certificate.

ORS 449.635(3) provides:

> "If the Environmental Quality Commission finds a * * * facility * * * for which an application has been made under ORS 449.625 was * * * constructed or installed * * * and is designed for, and is being operated or will operate to a substantial * * * purpose

of preventing * * * pollution and that the facility is necessary to satisfy the contents and purposes of (ORS Chapter 449 and regulations) * * * it shall certify such facility. * * * *". (Emphasis supplied)

ORS 449.625 again does not exclude a facility merely because it is not in operation because the statute contemplates an application being made outlining the proposed operational procedure.

At this point we have considered only the contents of applications and prima facie requirements necessary to make an application. After all information is received the application is now given to the Environmental Quality Commission for a determination whether certification should be made.

As stated, ORS 449.635(3) provides in part that if the Environmental Quality Commission finds a pollution control facility for which an application has been made is being operated or will operate to prevent pollution and satisfies ORS Chapter 449, it shall certify the facility. This statute requires the Commission to affirmatively find a facility is operating or will operate to prevent pollution. Obviously if the facility will never operate it cannct satisfy the purposes of ORS Chapter 449 because it would be absurd to certify a facility which is not preventing pollution or is not intended to prevent pollution in the reasonable future.

The legislative history of the tax relief statutes indicate the sponsors of the bills were concerned with a plant or pollution control facility under construction that would be placed into operation at a fixed date in the future. It was intended that such a plant would not be denied tax relief only because it was not in operation at the time an application was made. ORS 449.635(3) was intended to permit the Environmental Quality Commission to certify the facility if it found it would be placed in operation.

CONCLUSION

A pollution control facility not yet in operation may be certified by the Environmental Quality Commission if it finds it will be placed in operation. The word "will" as used in the Act does not mean "capability", "ability" or "could". If the Legislature meant "could" or "capability" it would have used these words. As used in ORS 449.635(3), "will" in the third person, like "shall" in the first person, denotes certainty, not speculation. It has a mandatory sense. Carson v. Turrish (Minn.), 168 N.W. 349; Muirhead v. Johnson, (Minn), 46 N.W. 2502; Girline v. Guidry, (Tex.), 241 S.W. 2203; McElroy v. Luster (Tex.), 254 S.W. 2893. Webster's Unabridged Dictionary, 2nd Ed., states the word "will" has various meanings including to resolve firmly, to determine; would as distinguished from

could; auxiliary used to express certainty in the future, obligation.

The Department of Environmental Quality must find, therefore, that the facility will at least operate for the purpose constructed, and is necessary to satisfy the purposes of ORS Chapter 449. It is not necessary to deny the application, but only require applicant to go forward with "facts" to justify the request for certification. A person may have constructed a "pollution control facility" which must either operate or will operate prior to receiving a certificate. This position is reinforced by ORS 316.097(3)(b), personal income tax and 317.072(3)(b), corporation excise tax. Under these sections the facility must be in operation to obtain credit and under ORS 307.405, ad valorem taxes, the facility must at least control or prevent pollution. Additionally, it should be noted, however, these latter tax statutes are not even considered until the Environmental Quality Commission finds the facility is in operation or will be in operation.

ABS:eb

EQC ESTABLISHED PRECEDENTS

FORMS AND INSTRUCTIONS

FOR APPLICANTS

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY TAX RELIEF IN OREGON

SECTION I Introduction

The state of Oregon, through legislation originally adopted in 1967, seeks to encourage the construction, installation and use of facilities to prevent, control or reduce air, noise or water pollution and to utilize solid waste, hazardous wastes and used oil by providing tax relief for persons who do so. In order to actually obtain the allowed tax relief, the following steps must be taken:

A. Prior to construction, a "Preliminary Certification for a Pollution Control Facility" must be requested from the Department of Environmental Quality (see Section IV, subsection A for facilities exempt from this requirement).

B. Upon completion of the approved construction, a "Pollution Control Facility Certificate" must be obtained from the Department of Environmental Quality.

C. An irrevocable election must be made to take the allowed credit, either: (a) as a credit against income or excise taxes; or (b) as an exemption from ad valorem taxes on the certified facility.

D. The "Pollution Control Facility Certificate" must be filed with the appropriate taxing agency (based on the above mentioned election) in accordance with their requirements.

The information which follows is intended to explain the various aspects of the available tax relief, identify the qualifications which must be met, and prescribe the procedures for obtaining the necessary certificate from the Department of Environmental Quality.

SECTION II Certification Requirements

A. Air, Noise and Water Pollution Control Facilities

The tax relief law permits the Department of Environmental Quality to certify a facility which operates to a substantial extent for the purpose of preventing, controlling or reducing air, noise or water pollution. For each certificate issued, the Department is required to certify the actual cost of the facility and a percentage of the actual cost which can be properly allocated to the prevention, control or reduction of pollution. Specifically, the Department must certify whether the percentage of the actual cost so allocated is 80 percent or more, 60 percent or more and less than 80 percent, 40 percent or more and less than 60 percent, 20 percent or more and less than 40 percent, or less than 20 percent.

B. Waste Utilization Facilities

The tax relief laws as amended in 1973 and 1975, permit the Department of Environmental Quality to certify a solid waste facility, the substantial purpose of which is to utilize solid waste (as defined in ORS 459.005). The 1979, amendments allow certification of hazardous wastes and used oil facilities, which meet the same requirements as solid waste facilities.

Such facilities, to be certified, must produce as an end product a usable source of power or other item of real economic value; and the end product must be competitive with an end product produced in another state. The 1977, amendments expand the definition of a solid waste facility to include additions to facilities which will increase the production or recovery of useful materials or energy over the amount being produced or recovered by the original facility.

For each certificate issued, the Department is only required to certify the actual cost of the facility which utilizes such solid waste, hazardous wastes, or used oil.

C. Field Sanitation and Straw Utilization and Disposal Facilities

After alternative methods for field sanitation and straw utilization and disposal are approved by the Advisory Committee on Field Burning and the Department, these methods will become eligible for tax relief.

SECTION III Types of Tax Relief Available

The law allows tax relief to be taken either (a) as a credit against income or excise taxes or (b) as an exemption from ad valorem taxation on the pollution control facility. The certificate holder is required to make an irrevocable election within 60 days after receipt of the certificate relative to his choice for tax relief. The law also provides that no tax relief shall be allowed for any pollution control facility constructed or used by, or for the benefit of, any governmental or quasi-governmental body or public corporation or form thereof, except where such facilities are used for resource recovery.

The alternate forms of tax relief are described in more detail as follows:

A. Credit Against Income or Excise Taxes

NOTE: Any questions regarding this alternative should be directed to the Income Division Administrator, Oregon State Department of Revenue, Salem, Oregon.

1. The maximum credit allowed in any one tax year on air, noise or water pollution control facilities, having a useful life of ten years or longer shall be the lesser of the liability of the taxpayer or the following portion of the cost of the facility:

a. Five percent of the cost of the facility if the portion of the cost allocated to pollution control by the certificate is 80 percent or more.

b. Four percent of the cost of the facility if the portion of the cost allocated to pollution control by the certificate is 60 percent or more and less than 80 percent.

c. Three percent of the cost of the facility if the portion of the cost allocated to pollution control by the certificate is 40 percent or more and less than 60 percent.

d. Two percent of the cost of the facility if the portion of the cost allocated to pollution control by the certificate is 20 percent or more and less than 40 percent.

e. One percent of the cost of the facility if the portion of the cost allocated to pollution control by the certificate is less than 20 percent.

2. The maximum credit allowed in any one tax year or solid waste, hazardous wastes or used oil facilities shall be five percent of the cost of the facility, but shall not exceed the tax liability of the taxpayer.

3. Air, noise or water pollution control facilities, or solid waste, hazardous wastes or used oil facilities, with a useful life of less than ten years are entitled to receive a tax credit prorated over the useful life of the facility. For example, a facility with 80 percent or more of the cost allocated to pollution control and a useful life of eight years would be eligible for a tax credit equal to 6.25 percent of the cost of the facility annually for eight years.

4. A taxpayer who is allowed credit must be the owner, contract purchaser or lessee who conducts the trade or business that utilizes Oregon property requiring a pollution control facility to prevent or minimize pollution. The facility must be owned or leased during the tax year by the taxpayer claiming the credit and must have been in use and operation during the tax year.

5. Tax credit may be claimed by a taxpayer for:

   a. Air and water quality facilities erected, constructed or installed on or after January 1, 1967.

   b. Solid waste facilities under construction on or after January 1, 1973.

   c. Noise pollution control facilities erected, constructed or installed on or after January 1, 1977.

   d. Hazardous wastes and used oil facilities under construction on or after October 3, 1979.

The maximum total credit allowable shall not exceed that obtained by taking the allowed credit for ten consecutive years, or for the useful life of the facility if less than ten years.

6. Depreciation or amortization deductions may be taken in addition to tax credit for tax years beginning after January 1, 1977, but not in any prior tax years.

7. Upon any sale, exchange or other disposition of the facility, a taxpayer shall notify the Department of Environmental Quality, who shall revoke the certification covering such facility as of the date of disposition. The new owner may apply for the remaining portion of the tax credit not taken by the previous owner.

8. Any credit allowable, but not used in any particular year, may be carried forward and used only in the next three (3) years.

9. The taxpayer's adjusted basis for determining gain or loss shall not be further decreased by any tax credits received in tax years beginning after January 1, 1977.

10. If the person electing tax credit relief is a small business corporation as defined in section 1371 of the Internal Revenue Code, such election shall be on behalf of the corporation's shareholders. Each shareholder shall be entitled to take tax credit relief as provided in ORS 316.097, based on that shareholders pro rata share of the certified cost of the facility.

11. Tax credit allowed will be reduced dollar for dollar by any federal grant or tax credits other than investment credits.

B. Exemption from Ad Valorem Taxation

NOTE: Any questions regarding this alternative should be directed to the County Assessor in the county where the facilities are located.

1. The pollution control facility must be erected, constructed or installed in connection with the trade or business conducted by the taxpayer on Oregon property owned or leased by the taxpayer. The taxpayer must be the owner or contract purchaser of the trade or business that utilizes Oregon property requiring a pollution control facility to prevent or minimize pollution, or a person who, as a lessee under a written lease or pursuant to a written agreement, conducts the trade or business that operates or utilizes such property and who by the terms of such lease or agreement is obliged to pay the ad valorem taxes on such property.

2. A certified facility is exempt from ad valorem taxation to the extent of the highest percentage figure certified by the Department of Environmental Quality as the portion of the actual cost properly allocable to the prevention, control or reduction of air, noise or water pollution. Solid waste, hazardous wastes or used oil facilities are exempt to the extent of the certified cost of the facility.

3. If the facility was constructed on or before December 31, 1971, the ad valorem exemption of a facility shall expire, in any event, twenty years from the date of it's first certification by the Environmental Quality Commission. If the facility is completed in any year subsequent to 1973, the twenty-year exemption period shall be reduced by the number of years determined by subtracting 1973 from the year in which the facility is completed and multiplying the difference by two. In other words a facility completed in 1974 would be exempt for 18 years; a facility completed in 1975 would be exempt for 16 years; and a facility completed in 1978 would be exempt for 10 years.

4. A taxpayer is not eligible to receive an exemption from ad valorem taxation on a pollution control facility installed or first used after December 31, 1973, unless the taxpayer owned or leased the Oregon property it was installed upon and conducted the trade or business requiring pollution control as of January 1, 1967.

5. The ad valorem relief option for profit-making corporations or individuals remains in effect for facilities under construction by December 31, 1980, and certified prior to December 31, 1982. This option is repealed thereafter. For cooperatives and nonprofit corporations the ad valorem option remains in effect through 1988. Further, they are eligible for the full twenty years of relief and are not required to have constructed the facility for prevention of pollution from a trade or business activity conducted on January 1, 1967, on Oregon property owned or leased by them on January 1, 1967.

6. Upon sale, exchange or other disposition of the facility the taxpayer shall notify the Department of Environmental Quality, who shall revoke the certification covering such facility as of the date of disposition.

7. Federal grants or tax credits do not affect the ad valorem exemption.

SECTION IV Eligibility of Claim Facilities for Certification

In general, a claimed facility is eligible for certification as a pollution control facility if:

A. It was constructed after requesting preliminary certification from the Department (required if construction commenced on or after September 13, 1975); or it was constructed after requesting approval to construct from the Department (required if construction commenced on or after October 5, 1973); and

B. It is an air or water pollution control facility that was erected, constructed or installed on or after January 1, 1967; or

It is a noise pollution control facility that was erected, constructed or installed on or after January 1, 1977; or

It is a solid waste facility that was under construction on or after January 1, 1973; or

It is a hazardous wastes or used oil facility that was under construction on or after October 3, 1979; and

C. It is necessary to satisfy the intents and purposes of ORS 468 and regulations adopted thereunder (air and water facilities), ORS 467 and regulations adopted thereunder (noise facilities), or ORS 459 and regulations adopted thereunder (solid waste, hazardous wastes and used oil facilities); and

D. It is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, noise or water pollution or solid waste, hazardous wastes or used oil; and

E. It is not: (1) an air conditioner (or other device which is installed or used in heating, cooling, filtering or otherwise treating or conditioning the air inside of buildings); (2) a septic tank or other facilities for human waste; (3) any property installed, constructed or used for the moving of sewage to the collecting facilities of a public or quasi-public sewerage system; (4) any district portion or portions of a solid waste, hazardous wastes or used oil facility which makes an insignificant contribution to the purpose of utilization of solid waste, hazardous wastes or used oil (the following specific items shall be among those portions considered for exclusion: office buildings and furnishings, parking lots and road improvements, landscaping, external lighting, company signs, art work, and automobiles).

If a tax credit has been received on an energy conservation facility, you are not eligible to apply for or receive a tax credit on the same facility as a pollution control facility under ORS 316.097 or 317.072.

SECTION V Application for Tax Credit Certification

Application for preliminary certification for tax credit pursuant to ORS 468.175 and 468.180 shall be made prior to construction of the proposed facility on DEQ tax credit form DEQ/TC-1-10/79.

Application for tax credit certification pursuant to ORS 468.165 shall be made after completion of construction of the facility on DEQ Tax Credit form DEQ/TC-2-10/79. Application forms can be obtained from:

State of Oregon
Department of Environmental Quality
Management Services Division
Box 1760
Portland, OR 97207

SECTION VI References

The following references identify the applicable sections of Oregon Law.
Original Law:

Chapter 592, Oregon Laws 1967

Amendements to Original Law:

Chapter 340, Oregon Laws 1969
Chapter 493, Section 19, Oregon Laws 1969
Chapter 678, Oregon Laws 1971
Chapter 402, Section 31, Oregon Laws 1973
Chapter 831, Oregon Laws 1973
Chapter 835, Oregon Laws 1973
Chapter 496, Oregon Laws 1975
Chapter 650, Oregon Laws 1975
Chapter 795, Oregon Laws 1977
Chapter 866, Section 10 and 11, Oregon Laws 1977
Chapter 802, Oregon Laws 1979
Chapter 531, Sections 5 and 6, Oregon Laws 1979
Chapter 512, Section 17, Oregon Laws 1979

Statuatory Reference	Brief Summary
ORS 468.155 Et seq.	Provisions of the above-referenced laws which relate to the certification of facilities by the Department of Environmental Quality.
ORS 307.405 ORS 307.420 ORS 307.430	Provisions of the above-referenced laws which relate to the ad valorem tax exemption alternative.
ORS 316.068 ORS 316.097	Provisions of the above-referenced laws which relate to the personal income tax alternative.
ORS 317.072 ORS 317.220	Provisions of the above-referenced laws which relate to the corporate excise tax credit alternative.
ORS 314.255	

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
1979 AMENDMENTS TO POLLUTION CONTROL FACILITIES TAX CREDIT LAW

1. Pollution control facilities for hazardous wastes and used oil, constructed on or after October 3, 1979, are eligible for tax credit certification. Senate Bill 139 amending ORS 468.155, 160, 165, 170, 175, and 185.

2. Distinct portions of solid waste, hazardous wastes, or used oil facilities, which make an insignificant contribution to the purpose of utilization of solid waste, hazardous waste, or used oil, are not eligible for tax credit certification effective October 3, 1979. The following specific items shall be among those portions considered for exclusion: office buildings and furnishings, parking lots and road improvements, landscaping, external lighting, company signs, artwork, and automobiles. Senate Bill 139 amending ORS 468.155(2).

3. The Oregon law regulating solid waste must impose standards at least substantially equivalent to the federal law in order for solid waste, hazardous wastes, and used oil facilities to be eligible for tax credit. Senate Bill 139 amending ORS 468.165(1)(c)(D).

4. For facilities constructed on or after October 3, 1979, the Commission may waive the filing of the application for preliminary certification if it finds the filing inappropriate because special circumstances render the filing unreasonable and if it finds such facility would otherwise qualify for tax credit certification. Senate Bill 139 amending ORS 468.175(1), 468.170(4), and 468.180(1).

5. All references to ORS 448.305 have been deleted from the tax credit statutes. Senate Bill 139 amending ORS 468.170, 175, and 180.

6. Effective October 3, 1979, facilities used for resource recovery that are constructed or used by or for the benefit of any government or quasi-governmental body or public corporation or form there of shall be eligible for tax credit certification under ORS 307.405, 316.097, or 317.072. House Bill 2846 amending ORS 314.255(2).

7. Effective October 3, 1979, portions of a solid waste, hazardous waste, or used oil facility may be certified separately if ownership of a portion is in more than one person. Certification of such portions of a facility shall include certification of the actual cost of the portion of the facility to the person receiving the certification.

   The actual cost certified for all portions of a facility separately certified, shall not exceed the total cost of the facility that would have been certified under one certificate. The provisions of subsection (10) of ORS 316.097 or 317.072, whichever is applicable, shall apply to any sale, exchange, or other disposition of a certified portion of a facility. House Bill 2846 amending ORS 468.170.

8. Any person who applies for and receives a tax credit on an energy conservation facility is not eligible to apply for and receive a tax credit on the same facility as a pollution control facility under ORS 316.097 or 317.072. House Bill 2843 effective October 3, 1979.

This document does not attempt to provide all the details contained in the 1979 amendments to the tax credit statutes. Please refer to the bills for specifics.

MO2057

State of Oregon
Department of Environmental Quality

INSTRUCTIONS FOR COMPLETING NOTICE OF INTENT TO CONSTRUCT AND REQUEST FOR PRELIMINARY CERTIFICATION FOR TAX CREDIT FORM

Form number DEQ/TC-1-10/79 may be used to notify the Department of intent to construct a new source of air contaminant emissions or a confined animal feeding or holding operation, and to request construction approval. It may also be used to request preliminary certification for tax credit for a pollution control or waste utilization facility. Or, it may be used for both purposes. Where it is used to both request construction approval and preliminary certification, it must be clearly indicated in the application which portion of the facility is being forwarded for preliminary certification.

Oregon statutes and Department administrative rules require the submission of this form and Department approval before commencing construction, installation or establishment of a new, modified or expanded source of air contaminant emissions, including air pollution control equipment, or a confined animal feeding or holding operation.

Oregon tax credit statutes require the submission of this form requesting preliminary certification before commencing erection, construction or installation of a pollution control or waste utilization facility in order to be eligible for consideration for tax credit certification upon completion of the facility. It further requires Department approval of preliminary certification, and that the facility be constructed in accordance with the plans and specifications submitted with the form and approved by the Department.

If the facility has been certified as an energy conservation facility, pursuant to Oregon Laws 1979, Chapter 512, by the Oregon Department of Energy, it may not be certified for tax credit as a pollution control or waste utilization facility under ORS 316.097 (personal income tax) or ORS 317.072 (corporate excise tax).

Oregon land use statutes require the Department to receive evidence from the responsible local planning authorities that any new or expanded facility will be compatible with local comprehensive land use plan provisions before it issues final approval of such facilities. Applicants using this form to request construction approval of new or expanded air contaminant sources or confined animal feeding or holding operations, or to request preliminary certification for noise pollution control facilities or solid waste, hazardous wastes or used oil utilization facilities must obtain a local compatibility statement in order for the Department to give final approval to the proposed project. Applicants should use Department form number DEQ/TC-12-10/79 to obtain the local compatibility statement.

Submit copy of application and exhibits to:

DEPARTMENT OF ENVIRONMENTAL QUALITY
MANAGEMENT SERVICES DIVISION
POST OFFICE BOX 1760
PORTLAND, OREGON 97207

FOR DEQ USE ONLY
Date Rec'd _____
Request No. _____
File No. _____

NOTICE OF INTENT TO CONSTRUCT
AND
REQUEST FOR PRELIMINARY CERTIFICATION FOR TAX CREDIT

ALL APPLICANTS COMPLETE

(1) If Notice of Intent to Construct and Request for Construction Approval, indicate type of facility by placing check (✓) in appropriate box.

☐ Air Contaminant Source ☐ Confined Animal Feeding or Holding Operation

(2) If request for Preliminary Certification, indicate type of pollution control or waste utilization facility proposed by placing check (✓) in appropriate box.

☐ Air ☐ Noise ☐ Water ☐ Solid Waste ☐ Hazardous Wastes ☐ Used Oil

(3) Official Name of Applicant

_____
Official Name

_____
Mailing Address, City, State, Zip Code

(4) Location of Facility

_____
Business Name or Division

_____
Street Address

_____
City County

(5) Person to Contact for Additional Details

_____
Name

_____
Title

_____
Address

_____
City Zip Code Phone No.

(6) Briefly describe nature of business where facility will be located and whether business is new or new at this location.

(7) Provide a brief technical description of the proposed facility and its function. Attach process flow diagram and plot plan as appropriate.

(8) Briefly describe pollution control or waste utilization equipment to be incorporated and/or utilized in facility.

NOTE: Tax credit law (ORS 468.175) requires that a request for preliminary certification be on file with the Department before commencing on a project in order to be eligible for consideration for tax credit certification upon completion of the project.

ALL APPLICANTS COMPLETE

(9) List types and amounts of pollutants discharged or produced and/or wastes utilized before installation of facility. Also indicate how wastes are disposed.

(10) List types and amounts of pollutants discharged, produced or reduced and/or wastes utilized after installation of facility. Also indicate how wastes are disposed.

(11) Estimated total cost of facility:

$ _____

Estimated cost of pollution control or waste utilization equipment:

$ _____

(12) Date construction estimated to begin ___/___/___.

Date construction estimated to end ___/___/___.

(13) Has a statement of compatibility with local comprehensive land use plans been obtained from appropriate local jurisdictions? (see instructions)

Yes _____, please attach. No _____, please attach explanation.

COMPLETE ONLY IF REQUESTING PRELIMINARY CERTIFICATION

(14) If facility is solid waste, hazardous wastes, or used oil facility, describe what usable source of power or other item of real economic value is produced and its value.

(15) Has facility, or any portion of it, previously been certified for tax credit, or is a tax credit application pending?

Yes _____, please attach explanation. No _____.

(16) Has facility or any portion of it, previously been certified as an energy conservation facility by the Oregon Department of Energy, or is an application pending?

Yes _____, please attach explanation. No _____.

APPLICANT SIGNATURE

I hereby certify that I have completed this application to the best of my ability and that the information provided herein and in the attached exhibits is true and correct to the best of my knowledge.

Signature _____ Title _____ Date ___/___/___

STATEMENT OF COMPATIBILITY
WITH
LOCAL COMPREHENSIVE LAND USE PLANS

Oregon land use laws and DEQ's Land Use Coordination Program, as approved by the Oregon Land Conservation and Development Commission, require that DEQ approval of proposed construction of new or expanded air contaminant sources or confined animal feeding or holding operations, and that DEQ approval of preliminary certification for tax credit for noise pollution control facilities or solid waste, hazardous wastes or used oil utilization facilities, not become effective until a Statement of Compatibility with applicable local land use plans and Statewide Planning Goals is provided to DEQ from the responsible local planning authorities. This form may be used to obtain such a Statement of Compatibility.

APPLICANT COMPLETE

APPLICANT'S DESCRIPTION OF THE NATURE AND LOCATION OF PROPOSED NEW OR EXPANDED FACILITY. (Include appropriate legal description, planning reference information. ☐ Check if the site is inside an Urban Growth Boundary but outside city limits. Attach evidence of city concurrence with the county Statement if concurrence not given below.)

COMPLETE ONLY ONE OF THE FOLLOWING:

PLANNING AUTHORITY STATEMENT

STATEMENT OF COMPATIBILITY FROM APPROPRIATE LAND USE AUTHORITY. (An equivalent Statement may be provided in lieu of this form.)

_____ has reviewed the above-referenced proposal for compatibility with (*cross out one*) (its LCDC Acknowledged Comprehensive Plan) *or* (Statewide Planning Goals) and finds the proposal to be compatible.

Signed _____ Title _____ Date _____

☐ City Concurrence inside Urban Growth Boundary:

Signed _____ Title _____ Date _____

APPLICANT'S ALTERNATIVE

REQUEST TO PROCEED WITH APPLICATION PROCESSING PENDING RECEIPT OF COMPATIBILITY STATEMENT

I hereby certify that I have applied to _____ on _____ for the necessary Statement of Compatibility. The local review action is expected to be completed by _____. I hereby request DEQ to proceed with processing my application during this time period in order to minimize delays. I understand that the requested construction approval or preliminary certification, when issued, cannot become effective until the Compatibility Statement is filed with the Department.

Signed _____ Date _____

LAND USE COMPATIBILITY REQUIREMENTS: INFORMATION TO DEQ APPLICANTS

1. Applicants are strongly encouraged to have the local statement in hand when applying. Optionally, applicants may submit evidence of application for local statements but DEQ approvals will be conditioned to not become effective until a favorable local statement is received.

2. Local statements must certify proposals compatible with LCDC-Acknowledged local comprehensive land use plans and implementing ordinances or Statewide Planning Goals.

3. Once the application is complete, DEQ will test the proposed action for compatibility with state and federal environmental quality requirements and relevant provisions of Goals 6 (Air, Water and Land Resources Quality) and 11 (Public Facilities and Services). However, DEQ actions are in themselves not findings of local land use or Goal compatibility. Both applicant and local government will be informed of the nature and fact of DEQ's actions.

4. In urbanizing areas between city limits and Urban Growth Boundaries, applicants must provide evidence of city concurrence with the county statement on the proposal. The city evidence may be:

   a. Sign-off below the county sign-off on DEQ's form, OR

   b. A copy of the city-county management agreement included in the Urban Area Plan Acknowledged by LCDC, OR

   c. A written statement covering the applicant's proposal.

5. Inside the Metropolitan Service District (MSD) surrounding Portland, evidence of compatibility with the current regional land use planning process and adopted requirements must be provided in addition to those discussed above.

6. Proposals within the jurisdiction and requirements of local government boundary commissions for the Portland, Salem, and Eugene areas must be separately cleared with them, as usual. That process is not linked in substance or timing to this new land use clearance, but both must be followed from now on.

7. If DEQ receives a negative local statement of compatibility, we cannot take action. The approval cannot be issued, or if already issued conditionally cannot become effective. DEQ expects the applicant to work with the local jurisdiction to obtain needed zone change, variance, or other modification to produce compatibility with the Acknowledged Plan and ordinances or the Goals. Return only when the issues are resolved and the local jurisdiction has made a statement of compatibility.

State of Oregon
Department of Environmental Quality

INSTRUCTIONS FOR COMPLETING APPLICATION FOR CERTIFICATION OF POLLUTION CONTROL FACILITY FOR TAX RELIEF PURPOSES

Any person who wishes to obtain tax relief for the installation of pollution control facilities as provided by Oregon law must submit an application for a Pollution Control Facility Certificate to the Oregon State Department of Environmental Quality. For facilities constructed or installed on or after October 5, 1973, a notice of intent to construct must have been filled with the Department prior to construction. For facilities constructed after September 12, 1975, a request for preliminary certification must have been filed with the Department prior to construction.

The applicant is responsible for providing in his application such information as may be necessary to justify his claim that the facility described and claimed in the application qualifies for certification as a pollution control facility. Under most circumstances, the information requested in the application form should be sufficient. However, in cases where the claimed facility is a part of the plant production facilities or where benefits other than pollution control are derived from such facilities, additional and more detailed explanations may be required.

In general, the completed application must clearly indicate exactly what the claimed facility is, why it was installed, when it was installed, what functions it performs other than pollution control, if any, the actual cost of the facility, and the percentatge of the actual cost which is allocated to pollution control. Failure of the applicant to adequately complete the application and justify his claim may be grounds for denial of certification.

The Department of Environmental Quality is responsible for reviewing all applications submitted to determine whether or not the claimed facilities qualify for certification. Not all facilities which function to prevent, control or reduce pollution are eligible for certification under the terms of present statutes. Therefore, the burden of proof of eligibility for claimed facilities rests with the applicant.

Nearly all the information requested in the application form is of a technical or engineering nature. Most of the problems encountered to date in processing applications can be related to inadequate technical information which apparently arises from (a) the assumption that "The Department of Enviromental Quality already knows that," or (b) the completion of the application by persons who are not qualified to understand and present the technical details. No problems have been encountered relative to the cost of facilities where such costs have been certified by an accountant as required in the application form.

DEQ/TC-7-10/79
M3589.7

For purposes of ensuring that the technical information is adequate and properly presented, the applicant should assume that the Department of Environmental Quality has no knowledge of his operation or problems and will assume that the claimed facility is not eligible for certification unless positive proof is offered to support the claim of eligibility.

Special Instructions

The following special instructions and notes refer to specific sections of the application form:

SECTION I - Identification of Applicant

1. Indicate the type of pollution control facility you are requesting to be certified. If more than one facility is involved, separate applications should be submitted for each. Air, noise, water, solid waste, hazardous wastes or used oil facilities should always be considered in separate applications. Similarly, when the percent of cost allocable to pollution control is different for two or more units or facilities, separate applications should be submitted.

2. The official name and address of the applicant should be the same as that used for tax purposes in the state of Oregon. If corporation, exact name as specified on charter; if partnership or joint venture, the name of the partners or principals.

3. The requested information refers to the status of ownership of the plant and the claimed facility. In a case where the claimed facility is leased, the applicant (lessee) must include with the application (a) a copy of the lease agreement and (b) the notarized statement from the lessor authorizing the lessee to take any allowable credit on the facility.

4. Indicate the person to whom a copy of staff report and recommendations, notice of the Environmental Quality Commission Meeting, and final certificate should be mailed.

5. Indicate the person whom the staff should contact to obtain additional technical information regarding the claimed facility.

6. Indicate the address of the plant where the claimed facility is located, if different from the official address of the applicant.

7. Indicate directions for access to the claimed facility, including the name of the appropriate person at the plant site who should be contacted relative to an inspection of the claimed facility.

8. Self-explanatory.

9. Self-explanatory.

SECTION II - Description of Operation

1. Indicate the type of material or commodity processed, and the final products produced at the plant or site where the claimed facility is located.

SECTION III - Description of Claimed Facility

1. This requested brief technical description of the facility claimed for certification is extremely important. It should be carefully worded to adequately describe the nature and extent of the claimed facility in a clear and concise manner. The description should be suitable for identifying the specific facility on the certificate itself. Model and serial numbers of all components should be included where such exist.

The complete function of the claimed facility should also be described.

Example:

Effluent clarifier system consisting of (a) effluent collection sump constructed in old outfall line, (b) wet pit-type pumping station with two Brand X, Model Y vertical waste pumps and necessary controls, (c) pressure main to convey waste from pump station to clarifier, (d) 40-foot diameter reinforced concrete clarifier constructed on site with Brand Z scraper mechanism and including two Brand M, Model N sludge pumps with necessary electrical controls and associated piping and miscellaneous equipment.

The facility functions to remove settleable solids from the waste water which is pumped into the clarifier. Removed solids are disposed of by burial on plant property. Clarified waste waters are returned to the existing outfall line below the collection sump.

2. Self-explanatory.

3. Self-explanatory.

4. Self-explanatory.

SECTION IV - Significant Information and Dates

1. through 9. The evaluation of your application is dependent on the information and dates requested in these questions.

10. The original 1967 tax relief act provided for certification of facilities installed for the principal purpose of preventing, controlling or reducing pollution. If the principal purpose of a facility was something other than pollution control, the facility was not eligible for certification.

The 1969 tax relief act permits certification of facilities if a substantial purpose of such facility is the prevention, control or reduction of pollution. The certification, however, must include

the percentage of the actual cost of the facility which is allocable to pollution control. This in essence allows partial credit for facilities which may not have been eligible for certification under the 1967 act. It also allows partial credit for facilities which may have been fully eligible under the 1967 act.

If construction of the claimed facility was begun by April 30, 1969, and was substantially complete by June 30, 1971, the applicant may choose to apply for certification either under the 1967 act (the all-or-nothing concept) or the 1969 act (the percentage allocation of cost concept). . This election is extremely important since it determines the basis for review of the application.

11. Clearly indicate all functions or benefits other than pollution control derived from the claimed facility.

12-A Self-explanatory.

12-B Description of the salable or usable source of power or end product, its utilization, economic value, and the waste products utilized.

12-C If yes, indicate the other state and describe the competitiveness of the end product. If no, explain why product is not competitively produced.

13. A facility must be certified as one of the following: air, noise, water, solid waste, hazardous wastes, or used oil pollution control facility. It cannot be issued more than one certificate for the same equipment, as that would, potentially, result in double tax relief. Further, after the original certificate expires on the facility, typically 10 years, the facility cannot be certified again.

14. A facility that is certified by the State Department of Energy as an Energy Conservation Facility cannot be certified as a Pollution Control Facility under ORS 316.097 or 317.072.

SECTION V - Allocation of Cost

The applicant must complete the information in Section V to the best of his ability to provide a basis for the determination of eligibility and percentage of the actual cost which is properly allocable to pollution control. Since each installation differs greatly, there is no specific formula offered for determining such allocation. The applicant must make his own case through the information requested and through any additional information which he may deem necessary to justify the percentage of the actual cost which he considers should be properly allocated to pollution control. If upon reviewing the application the Department disagrees with the applicant's claim, a conference will be scheduled with the applicant to discuss the matter prior to making any recommendation to the Commission regarding final action on the application.

1. The actual cost of the claimed facility entered on line "a" must be supported and documented by the accountant's certification of cost required in "Exhibit D" (Section VII). The remaining items under number 2 should be estimated as accurately as possible. For a facility that is owned by more than one person, and the applicant wishes to have the portion he owns certified separately, the actual

cost of the total facility must be documented, as well as the cost of the portion claimed in the application. (Solid waste hazardous wastes or used oil utilization facility applicants need only answer a and b of this question.)

2. A discussion of the alternative pollution control methods which were considered and rejected is an extremely important factor in determining whether the pollution control functions served by the claimed facility are "substantial" within the context of the law. This information is also used in conjunction with other information to determine the percent of cost allocable to pollution control if the pollution control purpose of the facility is found to be substantial.

3. If there are any factors other than those mentioned in this application which may assist in establishing the percent of cost allocable to pollution control for the particular installation, please indicate and fully explain.

4. As stated before, since each installation varies so greatly and the factors surrounding each installation are different, no formula can be offered for establishing the percent of cost allocable to pollution control. Therefore, the applicant must carefully consider his particular case and develop the best possible estimate of the percentage of cost allocated to pollution control. The rationale for arriving at this percentage figure must be completely explained.

SECTION VI - Required Exhibits

The required exhibits are an essential part of the application and cannot be omitted.

1. (Exhibit A) - If a pilot plan is not available, a sketch should be made which clearly indicates the location of the claimed facility relative to other plant facilities and identifiable landmarks in the area. The plot plan should be clearly marked to show the location of the claimed facility.

2. (Exhibit B) - Detailed plans which clearly document, describe and identify the claimed facility are absolutely essential. If as-built engineering plans are not available, drawings should be made which clearly and distinctly describe the claimed facility and identify the extent of the facility. Structural details are normally not necessary. Overall plan and profile drawings, cutaway section views and process schematic diagrams are often adequate to fully identify and describe the claimed facility. Photographs are helpful providing they are clearly marked to indicate exactly what portion of the facility shown in the photographs is part of the claimed facility. Photographs without clear marking to show what is claimed are of little value. Normally the plans and descriptive documents are adequate if an individual unfamiliar with the plant can locate the facility and identify exactly which components are part of the claimed facility and which are not.

3. (Exhibit C) - The information contained in this exhibit must be related closely to the plans required as Exhibit B. Materials expended in construction but not made a part of the permanent facility should not be included in the listing required in Exhibit C. Materials which lose their identity when incorporated in the facility should not be listed separately. Component parts which are removable or identifiable in themselves, such as motors, blowers, pumps, etc. should be clearly listed by make, model, serial number and other identifying information.

   Examples:

   a. For a concrete tank the itemized listings might be (1) excavation, (2) 10 ft. x 30 ft. x 6 ft. reinforced concrete open-topped tank including form work, reinforcing steel, concrete and labor to install.

   b. For pumping station the itemized listing might be (1) excavation, (2) structure consisting of reinforced concrete wet and dry well pumping station with above-ground control building, (3) two 30 HP vertical waste pumps, Brand Y, Model X, (4) discharge piping (5) pumping control system.

   c. For a baghouse the itemized listing might be (1) Brand X baghouse, Model Y, (2) Brand A fan, Model B, with 30 HP motor Brand D, Serial No. 1234567, (3) Water Deluge System, Brand F, Type G, (4) Ductwork, (5) structural steel and foundation, (6) electrical, (7) labor and engineering.

4. (Exhibit D) - The actual cost of the facility is the total of those costs directly related to the acquisition and installation of the claimed facility and may include engineering fees, legal fees, overhead and other costs directly attributable to the facility. Start-up and operation costs are not considered to be part of the actual cost of the facility.

   In a case where the claimed facility is leased, the accountant's certification of cost normally will not be required. The documentation of the actual value of the facility will be provided by the notarized statement from the lessor, which was discussed under Section I, Item 3 of these instructions.

   Also, in cases where the total actual cost of the claimed facility is less than $20,000 and where the costs can be completely and thoroughly documented by copies of invoices, canceled checks, etc., the Department of Environmental Quality may accept copies of such documentation in lieu of the accountant's certificate.

5. (Exhibit E) - Attach copy of document indicating construction approval, as requested in Section IV, Item 3 of the application.

6. (Exhibit F) - Attach a copy of the approved preliminary certification for a pollution control facility, as requested in Section IV, Item 5 of the application.

Any questions relative to the application form or the intent of requested information should be directed to the Department of Environmental Quality. Two copies of the completed five-page application form together with two copies of all exhibits should be mailed to:

State of Oregon
Department of Environmental Quality
Management Services Division
Box 1760
Portland, OR 97207

IMPORTANT

1) READ APPLICATION INSTRUCTIONS CAREFULLY,
2) SUBMIT TWO (2) COPIES OF APPLICATION AND EXHIBITS TO:

DEPARTMENT OF ENVIRONMENTAL QUALITY
MANAGEMENT SERVICES DIVISION
Post Office Box 1760
Portland, Oregon 97207

For DEQ Use Only
Date Rec'd _____
Application No. _____

APPLICATION FOR CERTIFICATION OF A POLLUTION CONTROL FACILITY FOR TAX RELIEF PURPOSES PURSUANT TO ORS 468.155 *et. seq.*

SECTION I IDENTIFICATION OF APPLICANT

(1) Indicate the Type of Facility by Placing Check (√) in Appropriate Box.

☐ AIR ☐ NOISE ☐ WATER ☐ SOLID WASTE ☐ HAZARDOUS WASTE ☐ USED OIL

(2) Official Name of Applicant (if corporation, exact name as specified in charter; if partnership or joint venture the names of all partners or principals).

_____
official name

_____
division identification

_____
names of general partners or principals

_____
address

_____
city, state, zip code

(3) Status of Applicant

____ Lessee

____ Owner

____ Individual

____ Partnership

____ Corporation

(4) Person Authorized to Receive Certification

_____
name

_____
title

_____
address

_____
city zip phone no.

(5) Person to Contact for Additional Details

_____
name

_____
title

_____
address

_____
city zip phone no.

(6) Location of Claimed Facility

_____
address

_____
city

_____
county

(7) Access Directions:

(8) Applicant's IRS Employer Identification Number

_____

(9) Applicant's Tax Year

_____ _____
beginning date ending date

SECTION II DESCRIPTION OF OPERATION

(1) Briefly describe the nature of the industrial or commercial process conducted at the plant, and the end product produced.

DEPARTMENT OF ENVIRONMENTAL QUALITY

APPLICATION FOR CERTIFICATION OF A POLLUTION CONTROL FACILITY FOR TAX RELIEF PURPOSES PURSUANT TO ORS 468.155 et. seq.

(Continued)

SECTION III
DESCRIPTION OF CLAIMED FACILITY

(1) Provide a brief technical description of the claimed facility for certification as a pollution control or a waste utilization facility (including model and serial numbers of equipment) and describe the complete function of such facility. Attach additional sheet if necessary.

(2) Describe the conditions which existed, or would have existed had the claimed facility not been provided, and describe the methods of pollutant or waste disposal which were utilized prior to installation or construction of the claimed facility. Attach additional sheet if necessary.

(3) Describe the conditions which currently exist as a result of the installation of the claimed facility. How has the impact on the environment been reduced or minimized as a result of the claimed facility? Attach additional sheet if necessary.

(4) Describe the effectiveness of the claimed facility to reduce pollution and solid waste, quantitative data preferred though not mandatory. Attach additional sheet if necessary.

DEPARTMENT OF ENVIRONMENTAL QUALITY

APPLICATION FOR CERTIFICATION OF A POLLUTION CONTROL FACILITY FOR TAX RELIEF PURPOSES PURSUANT TO ORS 468.155 et. seq.

(Continued)

SECTION IV
SIGNIFICANT DATES AND INFORMATION

(1) Was claimed facility required by the department or any other governmental organization? _____ (Yes or No)

If yes who required facility? _____

_____ _____ (Date)

(2) Did claimed facility replace an existing facility? _____ (Yes or No)

(3) Were plans and specifications or construction approval obtained prior to construction from the department or Regional Air Pollution Authority? _____ (Yes or No) If yes attach a copy of approval document. (Exhibit E—Page 5)

(4) Was claimed facility constructed according to approved plans and specifications? _____ (Yes or No) If no explain deviations on a attached sheet.

(5) Was a preliminary certification for tax credit obtained from the department for the claimed facility? (ORS 468.175) _____ (Yes or No)

If Yes attach a copy of the certification document (Exhibit F—Page 5)

(6) Date erection, construction or installation of claimed facility was started. _____

(7) Date erection, construction or installation of claimed facility was completed. _____

(8) Date claimed facility was placed into operation. _____

(9) Estimated useful life of claimed facility. _____

NOTE: If construction began on a pollution control facility by April 30, 1969, and was substantially complete by June 30, 1971, the applicant may elect to apply the tax relief available under the certification either under the original 1967 act or the 1969 act. (See instructions for explanation of differences).

(10) If applicable, state your election to take relief under the _____ 1967 act or the _____ 1969 act.

(11) Does the claimed facility perform any function other than pollution control? _____ (Yes or No) Explain.

(12)*A—To what extent is the claimed facility used to recover and convert waste products into a salable or usable commodity?

*B—Describe the salable or usable source of power or end product being produced through the recovery and conversion of waste products by the claimed facility; also describe the economic value of the end product.

C--Is the end product, other than a usable source of power, competitive with an end product produced in another state? _____ (yes or no) Explain.

* Attach additional sheets if necessary.

DEPARTMENT OF ENVIRONMENTAL QUALITY

APPLICATION FOR CERTIFICATION OF A POLLUTION CONTROL FACILITY FOR TAX RELIEF PURPOSES PURSUANT TO ORS 468.155 et. seq.

(Continued)

SECTION IV
SIGNIFICANT DATES AND INFORMATION

(13) Has claimed facility previously been certified by DEQ for tax credit, or is tax credit application currently pending on claimed facility or any portion of it? Yes _____, please explain. No _____.

(14) Has claimed facility, or any portion of it, previously been certified as an Energy Conservation Facility by the State Department of Energy, or is such an application pending? Yes _____, please explain. No _____.

DEPARTMENT OF ENVIRONMENTAL QUALITY

APPLICATION FOR CERTIFICATION OF A POLLUTION CONTROL FACILITY FOR TAX RELIEF PURPOSES PURSUANT TO ORS 468.155 et. seq.

(Continued)

SECTION V
ALLOCATION OF COSTS

(1) Complete the following information regarding costs associated with the claimed facility. (Solid waste, hazardous wastes or used oil utilization facility applicants need only answer a and b of the question.)

a. Actual cost of the claimed facility $_____

b. Annual income derived from claimed facility or value of recovered or reclaimed materials $_____

c. Annual Operating Expenses

Labor $_____

Utilities $_____

Maintenance $_____

Average Annual Depreciation $_____

_____ $_____

_____ $_____

_____ $_____

d. Total Annual Operating Expenses $_____

e. Net Annual Profit Before Taxes (b-d) $_____

f. Return on Investment Before Taxes (e/a x 100) _____%

What is the lowest acceptable return on an investment, before taxes, which will justify an investment in your particular plant? _____% Please explain and justify on a attached sheet.

(2) What alternative method or facilities were considered for achieving the same pollution, solid waste, hazardous wastes or used oil control objective. Indicate the estimated cost of each and the reasons for selection of the method used.

(3) List any other facts which may be relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, noise or water pollution

(4) Percent of Cost of Claimed Facility properly allocable to pollution control: _____%
Explain the method used for arriving at this figure.

DEPARTMENT OF ENVIRONMENTAL QUALITY

APPLICATION FOR CERTIFICATION OF A POLLUTION CONTROL FACILITY FOR TAX RELIEF PURPOSES PURSUANT TO ORS 468.155 et. seq.

(Continued)

SECTION VI REQUIRED EXHIBITS

Attach the Following Exhibits to the application:

(1) As EXHIBIT A, attach a plot plan or site map which shows the overall plant site and the location within the plant site where the claimed facility is located. The general location and extent of the claimed facility should be clearly marked.

(2) As EXHIBIT B, attach detailed **as built** engineering plans which clearly and completely identify and describe the claimed facility. Any other facility shown on the plans which are not claimed should be clearly marked accordingly. Photographs of the claimed facility can also be attached to supplement the plans.

(3) As EXHIBIT C, attach a listing of the land, material, machinery, and equipment incorporated into the claimed facility together with the associated cost. All items should be grouped into logical units and referenced to the specific unit on the as built plans provided as Exhibit B.

(4) As EXHIBIT D, attach a statement from an independent public accountant or certified public accountant which gives a breakdown of the actual cost of the claimed facility and certifies that the total cost indicated is a true and correct representation of the actual cost of the facility. Reference should be made to the listing of costs in Exhibit C.

NOTE: In cases where the total actual cost of the claimed facility is less than $20,000 and where the cost can be completely and thoroughly documented by copies of invoices, canceled checks, etc., the Department of Environmental Quality may accept copies of such documention in lieu of the accountant's certification.

(5) As EXHIBIT E, if erection, construction or installation of the claimed facility was begun on or after October 5, 1973, attach a copy of the document which indicates that prior to commencing on project a notice of intent to construct was filed with the Department, and that construction was approved.

(6) As EXHIBIT F, if erection, construction or installation of the claimed facility was begun on or after September 13, 1975, attach a copy of document which indicates that prior to commencing on project a request for Preliminary Certification for Tax Credit was filed with the Department, and that a Preliminary Certification was granted.

IMPORTANT, each item of the application must be completed. If inapplicable explain why. Failure to complete application shall constitute basis for denial of Certification.

I hereby certify that I have completed this application to the best of my ability, and that the information provided herein and in the attached exhibits is true and correct to the best of my knowledge, and that the facility described in this application was erected, constructed, or installed and will be operated to a substantial extent for the purpose of preventing, controlling, or reducing air, noise or water pollution, or solid waste, hazardous wastes or used oil.

SIGNATURE: _____

TITLE: _____

DATE: _____

METHODS FOR DETERMINING

PRECENT OF COST ALLOCABLE TO POLLUTION CONTROL

FORMATS FOR EQC

TAX CREDIT STAFF REPORTS

EQC STAFF REPORT FORMAT: TAX CREDIT CERTIFICATION

Form date: 10/3/79

Application No. _____

Date _____

STATE OF OREGON - DEPARTMENT OF ENVIRONMENTAL QUALITY

Tax Relief Application Review Report

---

1. Applicant

Company Name
Division (if any)
Address
City, State, Zip Code

The applicant owns (leases) and operates a (describe type of operation, e.g., pulp and paper mill) at (city, state).

Application was made for tax credit for (air, noise, water, solid waste, hazardous wastes, used oil) pollution control facility.

2. Description of Claimed Facility

The facility described in this application is (give enough detail about facility to ensure that it won't be confused with other existing or future facilities at the plant site and include a breakdown of costs where appropriate.)

(Choose one of the following statements as appropriate.)

Request for Preliminary Certification for Tax Credit was made (date), and approved (date). (Use if construction commenced on or after September 13, 1975.)

(--or--)

Requirement to file an application for Preliminary Certification was waived by the Commission (date).

(--or--)

Notice of Intent to Construct was made (date), and approved (date). Preliminary Certification for Tax Credit not required. (Use if construction commenced on or after October 5, 1973 and before September 13, 1975.)

(--or--)

Notice of Intent to Construct and Preliminary Certification for Tax Credit not required. (Use if construction commenced before October 5, 1973.)

(--or--)

Request for Preliminary Certification was not made; applicant requests that Commission waive requirements for filing.

(Continue with the following.)

Cosntruction was initiated on the claimed facility (date), completed (date), and the facility was placed into operation (date).

Facility Cost: $_____ (Accountant's certification was provided.) (Use the following sentence if applicable.) Certification is claimed under the 1969 Act with 100% allocated to pollution control.

3. Evaluation of Application

(Give brief but complete evaluation of application. Compliance or non-compliance status of the project must be clearly stated and explained, if necessary, relative to treatment standards and/or permit conditions. Briefly describe how percent allocable was derived.)

4. Summation

(Remember that every conclusion of Summation must be supported by information in the report, attached materials, or references.)

A. (Choose one of the following statements as applicable.)

Facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification. (Use if construction commenced on or after September 13, 1975.)

(--or--)

Facility was constructed under a certificate of approval to construct issued pursuant to ORS 468.175. (Use if construction commenced after October 5, 1973, and before September 13, 1975.)

(--or--)

Facility was not required to have prior approval to construct or preliminary certification. (Use if construction commenced before October 5, 1973.)

(--or--)

Special circumstances (list above in Summation) exist which made the filing of an application for preliminary certification unreasonable.

B. (Choose one of the following statements as applicable.)

Facility was constructed on or after January 1, 1967, as required by ORS 468.165(1) (a). (Use for air or water pollution control facilities.)

(--or--)

Facility was constructed on or after January 1, 1977, as required by ORS 468.165(1) (b). (Use for noise pollution control facilities.)

(--or--)

Facility was under construction on or after January 1, 1973, as required by ORS 468.165(1) (c). (Use for solid waste facilities.)

(--or--)

Facility was under construction on or after October 3, 1979, as required by Chapter 802, Section 8, Oregon Laws 1979. (Use for hazardous wastes or used oil facilities.)

C. Facility is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing (choose one of the following: air pollution, water pollution, noise pollution, solid waste, hazardous wastes, used oil).

D. The facility was required by (state Department or other authority which required facility, if any) and is necessary to satisfy the intents and purposes of ORS Chapter ___ (fill in blank with one of the following) 468 (air and water) 467 (noise) 459 (solid waste, hazardous wastes, used oil), and the rules adopted under that chapter.

E. The portion of the facility cost that is properly allocable to pollution control is (percent).

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Cerificate bearing the cost of $_____ with (see below) allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number T-_____.

(The second blank space in number five should be filled in with ONE of the following phrases)

100 percent (solid waste, hazardous waste, or used oil facilities)
80 percent or more
60 percent or more but less than 80 percent
40 percent or more but less than 60 percent
20 percent or more but less than 40 percent
Less than 20 percent

Name of Section Supervisor or Division Head:typist initials
Phone number of above
Date report actually typed

GDLNS

EQC STAFF REPORT FORMAT: TAX CREDIT PRELIMINARY CERTIFICATION

Format date: 10/3/79

(Commission staff reports are needed only to deny a preliminary certification, or to waive filing of an application for preliminary certification)

STATE OF OREGON - DEPARTMENT OF ENVIRONMENTAL QUALITY

Preliminary Certification Review Report

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1. Applicant

Company Name
Division (if any)
Address
City, State, Zip Code

The applicant owns (leases) and operates a (describe type of operation, e.g., pulp and paper mill) at (city and state).

Preliminary certification is required for (air, noise, water, solid waste, hazardous wastes, used oil) pollution control facility.

2. Description of Claimed Facility

The facility described in this application is (give enough detail about facility to ensure that it won't be confused with other existing or future facilities at the plant site and include a breakdown of costs where appropriate).

It is estimated the facility will be placed in operation (date).

The estimated cost of the facility is (dollar amount).

3. Evaluation of Application

(Give a brief but complete evaluation of application)

4. Summation (Provide a list of findings that support one of the following conclusions, and then state the chosen conclusion. Remember that every conclusion in Summation must be supported by information in report, attached materials, or references.)

Special circumstances (listed above) exist which made the filing of an application for preliminary certification unreasonable, and the facility is otherwise eligible for tax credit certification pursuant to ORS 468.155 to 468.190.

(--or--)

Erection, construction, or installation of the facility was commenced before a request for Preliminary Certification was filed with the Department pursuant to ORS 468.175(1); therefore the facility is not eligible for tax credit certification.

(--or--)

The Department has determined that the erection, construction or installation does not comply with the applicable provisions of ORS Chapter 454, 459, 467, or 468 and the applicable rules or standards adopted pursuant thereto; therefore the facility is not eligible for tax credit certification.

5. Director's Recommendation

(Choose one of the following.)

Based upon the findings in the summation, it is recommended that the Commission issue an order denying the applicant's request for Preliminary Certification.

(--or--)

Based upon the findings in the summation it is recommended that the Commission waive the filing of an application for Preliminary Certification for the facility proposed.

Responsible manager's name: typist initials
Phone number of above
Date report actually typed

GDLNS

ATTACHMENT 2

STATE OF OREGON

INTEROFFICE MEMO

DEQ-Solid Waste Division (DEPT.) 229-6266 (TELEPHONE)

TO: Mike Downs thru EAS

DATE: October 23, 1979

FROM: Bill Dana

Management Services Div.
Dept. of Environmental Quality
RECEIVED
OCT 29 1979

SUBJECT: Solid Waste Tax Credit Precedents

In response to your memo dated September 28, 1979, I have prepared the following list of precedents which the Commission has set for the solid waste tax credit program:

1. Hog fuel boilers are generally eligible. The applicant must demonstrate that the fuel is indeed a waste (e.g., that it was previously landfilled, burned for volume reduction only or sold for little or no profit). Where the "waste" has previously been used as a fuel by the applicant or others, it must be shown that the proposed facility will increase the amount of wood waste currently being utilized for energy production. Examples of facilities approved include: (a) Publishers Paper Co., Tillamook Division, T-590; (b) Jeld-Wen, Inc., Thomas Lumber Co., Klamath Falls, T-723 and (c) Publishers Paper Co., Newberg Division, T-814.

2. Wood waste burners (heat sources) are generally eligible. As above, the applicant must demonstrate that the fuel is a "solid waste" or that waste utilization will increase. Examples of approved facilities include: (a) Georgia-Pacific, Eugene, T-879; (b) SWF Plywood Co., White City and (c) Weyerhaeuser, Klamath Falls, T-891.

3. Steam turbine electrical generators are eligible. The applicant must demonstrate that the generator results in an increase in energy production over the amount produced by a boiler alone. Only one facility has been approved to date--the Publishers Paper Co. facility at Newberg, application number T-1022.

4. In a matter related to #3 above, the Commission has determined that appurtenances to boilers which result in greater energy use (as opposed to production) are not eligible. In other words, boilers which utilize waste to produce energy are eligible, but equipment that merely uses that energy (even if it allows more wood waste to be utilized) is not. The precedent setting case for this complicated matter is the Rough & Ready Lumber Company's dry kiln installation at Cave Junction, application number T-1104.

5. Wood waste hogs and chippers and related material handling and storage equipment are eligible. The applicant must meet the basic tests of demonstrating that the material processed is a "waste" and that a product of real economic value is produced. Examples of approved hog installations include: (a) Georgia-Pacific, Coquille Plywood Plant, T-637; (b) McMillan Shingles Co., Grand Ronde, T-728R and (c) Bellview Moulding Mill, Ashland, T-732. Examples of approved chippers include: (a) Champion Building Products, Eugene, T-932; (b) Hobin Lumber Co., Philomath, T-799 and (c) Nordstrand Cedar Products, Lebanon, T-846.

6. Facilities that process solid waste into a product to the point where the original product (raw material) loses its identity. For example, waste paper processing equipment, including cleaning, pulping and de-inking facilities, are eligible. The applicant must demonstrate that the recovery of waste paper will increase as a result of the new facility. In other words, if there are existing facilities with adequate capacity to handle the waste paper in an area, the installation of a new facility would not increase waste utilization and would not be eligible. Once the paper loses its identity (becomes pulp), additional equipment in the process line is not eligible. Examples of approved facilities are: (a) Publishers Paper de-inking facility at Oregon City, T-721; (b) Georgia-Pacific's cleaning and pulping equipment at Toledo, T-854 and (c) the Western Kraft waste paper cleaning system at Albany, T-917. In a related case, the entire Medford Corporation Fiberboard Plant (T-949) was approved because it involves one integrated process.

7. Waste paper balers may be eligible. Again, the applicant must demonstrate that the paper is a "waste" (i.e., not currently being recycled). An unstable market for non-baled paper may make such material a "waste". Examples of approved balers include: (a) Girod's Hilltop Super Market, Mill City, T-660; (b) Fred Bay News, Portland, T-1010. Note that the Commission rejected an application to certify a baler at Oja's Super Market (T-568) when the applicant failed to demonstrate that the baler would abate a waste disposal problem.

8. Paving of log yards which allows the recovery of bark is eligible. The applicant must demonstrate that the value of the recovered bark is greater than the annual operational savings after subtraction of annual investment (i.e. that the substantial purpose of the paving is to recover solid waste). Examples of approved facilities include: (a) Bohemia, Inc. at Coburg, T-860; (b) Bohemia, Inc. at Culp Creek, T-965 and (c) Willamette Industries, Sweet Home, T-1034.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

To: M. Downs

Date: 10/26/79

From: F. A. Skirvin

Subject: Tax Credit Program Precedents

1. Orchard Heating

   A. Overhead sprinklers - replaced burner systems and installed in new orchards. Some certifications included pumps, ponds and controls.

   B. Pressurized fuel systems - both oil and propane. Replaced buckets and burners (Hood River area).

   C. Fans - used in lieu of heaters but heaters may be required during colder periods. A wide range of units.

2. Paving - traveled areas at asphalt plants and sawmills.

3. Process Changes - "low odor" recovery furnaces at kraft mills (AQ) and changing to recoverable base chamicals (WQ) at sulfite mills have been certified.

   End seals on veneer dryers have been approved because they reduce the exhaust volumes eventually treated. They also reduce heating requirements and produce better veneer.

4. Monitoring/Control Equipment - devices which measure emissions and ambient systems required by regulation/permit have been certified. Devices which are used to operate at or near minimum emission rates (O_2 monitors) and equipment which enhances on-line time (fire prevention and alarm, etc.) have also been blessed.

5. Building Ventilation w/Treatment - since the contaminants were being exhausted without treatment the internal vent system, which may be occupational health related and the treatment device have been certified.

6. Reconstruction - capital expenditures which improve performance and/or life i.e., stainless steel on veneer dryer scrubbers have been certified. This is another area where some attention is necessary primarily to define reconstruction.

7. Other - a D-8 cat was approved at Crown Zellerbach, Wauna (WQ) based on sole use to pile knots from water treatment system. The knots could not be returned to process or used.

/cs

ENVIRONMENTAL QUALITY COMMISSION

BREAKFAST MEETING

December 14, 1979

1. Progress report on Program Evaluation Study - Chuck Crump

2. Transfer of funds from Field Burning Research & Development to Smoke Management - Freeburn

3. General discussion of sand filter rules - Osborne

4. PGE Bethel Air Contaminant Discharge Permit - Borden

5. Evans Products Permit, Corvallis - Borden

6. Date and location of March and April EQC Meetings

   March 28?

   April 25?

December 12, 1979

To: Department of Environmental Quality
Willamette Valley Region
1095 25th Street S.E.
Salem, Oregon 97310

re: Renewal of Air Contaminant Discharge Permit for Portland General Electric Company's Bethel Plant at 5765 State Street, Salem, Oregon.

Sirs,

As a local resident living near the Bethel Plant, I must comment on the environmental and physiological side effects which I have experienced during this Plant's operation. The infra-sound rumblings from this Plant have interrupted and even prevented my sleep, and have caused me to experience a number of diffuse, often painful symptoms of discomfort: painful ear-aches, pressure in my eustachian tubes, head-aches, painful pressure behind my eyes, and occasional loss of equilibrium. The Bethel Plant's operation has created for me a home environment that prevents any hope of relaxing and relieving tension. I have as yet noticed little interest expressed by D.E.Q. in addressing the issue of noise pollution generated by this Plant.

In addition, despite assurances to the contrary, the stack eliminations of the Plant have not, in all cases, risen above the surrounding neighborhood. The area around the Bethel Plant is subject to frequent fog, and the yellow-brown exhausts from the Plant hover in the moisture-laden air whenever inversions occur. Side effects from this form of air pollution have yet to be satisfactoriy evaluated.

In April of 1979 I had to have major repair work done on my home, which several contractors indicated may be due to the vibration caused by the Plant's operation. The plaster on my ceilings cracked and fell, my brick fireplace chimney cracked and had to be rebuilt to prevent leakage, and the cable heat in my ceilings ceased to operate when the cables snapped, all as a potential result of vibration in my home. Since this work has been done, new cracks are beginning to appear.

I sincerely hope that D.E.Q. will address itself to problems like these when considering P.G.E.'s application for permit renewal. It is true that energy production is a major concern in our area, but at what price? It's about time that P.G.E. as producer, and D.E.Q. as the peoples' representative and mediator, begin to assume some of the responsibility for their actions, even where that involves damages to local residents.

Mrs. Zolma Backe

Mrs. Zolma Backe
372 Hampden Lane N.E.
Salem, Oregon 97301

FORM NO. 23 — ACKNOWLEDGMENT
STEVENS-NESS LAW PUB. CO., PORTLAND, ORE.

STATE OF OREGON,

County of Marion } ss.

BE IT REMEMBERED, That on this 12th *day of* December, *19* 79, *before me, the undersigned, a Notary Public in and for said County and State, personally appeared the within named* Mrs. Zolma Backe

known to me to be the identical individual described in and who executed the within instrument and acknowledged to me that she *executed the same freely and voluntarily.*

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

Notary Public for Oregon.

My Commission expires 3-19-80

12/14/79

EXAMPLES OF PGE MISREPRESENTATION - BETHEL TURBINE GENERATING POWER PLANT

I. Evidence of misrepresentation of pollution effects (noise and air emissions) and, especially, adverse effects of which there was prior knowledge.

DATE/Occasion	REPRESENTATION
10/19/71 - Letter from PGE to Mr. H. H. Burkitt, DEQ	Neil H. Woodley, PGE stated "The silencing on the combustion turbine peaking generation plants is designed to produce no noticeable increase in ambient sound pressure levels at the residences nearest to the sites. During the most probable hours of peaking operation, the expected plant sound levels will be completely masked by ambient as shown in the sound pressure level diagrams of Figures 1 and 2." (Day & night sound readings made at Harborton and Bethel sites, March 16-18, 1971)

1

WHEREAS,

A. DEQ, Statement pertaining to Proposed Portland General Electric Turbine Generators - Harborton, Portland and Bethel, Marion County 11/16/72, page 3, Analysis (Noise): "Portland General Electric Company conducted an ambient noise study of each location early in 1971. The only significant concern of the Department about the tests is that the ambient noise sampling sites were not representative of most residences in the area.

2

DATE/OCCASION	REPRESENTATION
11/16/72 - Joint PUC-DEQ Hearing on Bethel and Harborton.	Testimony by Neil Woodley - PGE - stated "The ambient equivalent in dbA during the daytime at Bethel is 50 dbA. At the distance of 1200 feet from the turbines to the nearest residence, the sound level produced by the turbines would be 44 dbA, six dbA lower than the ambient."

3

WHEREAS,

A. 9/23/75 - Sound measurements made by John Hector, DEQ. Graph indicates 2 Twin-Pacs Operating - approximately 30 db greater when turbines operating than ambient.

4

B. 8/73 to 5/74, Robin M. Towne & Associates, Environmental Study of Low Frequency Noise & Vibration, Bethel Turbine Generating Facility, East Salem, Oregon Table 11, pg. 27, 31.5 Hz. One-Third Octave Band Noise

5

daytime	Frady living room	ambient	33 db	at 21Hz.

Table 21, pg. 49

6

evening	Backe den	ambient	31 db	at 21Hz.
evening	Backe den	ambient	35 db	at 4Hz.

EXAMPLES OF PGE MISREPRESENTATION - BETHEL TURBINE GENERATING POWER PLANT

WHEREAS CONT., B.

Table 20, pg. 48, Sound Pressure Level, Fourier Spectrum Peaks

100 MW	Backe kitchen	87 db	at 6 Hz.
55 MW	Backe kitchen	94 db	at 5 Hz.
55 MW	Backe L. Room	98 db	at 18Hz.
55 MW	Backe L. Room	100 db	at 5 Hz.

Table 15, pg. 35, Fourier Spectrum Peaks, 31.5 Hz. Octave Band

100 MW	Frady Lawn	95 db

CONCLUSIONS: by Charles H. Frady — In the lower octave bands (4 - 21 Hz.) the ambient will be exceeded by approximately 65 db, whether the turbines are running at 100MW or 55 MW.

C. 8/73 to 5/74, Robin M. Towne & Associates, Environmental Study of Low Frequency Noise & Vibration, Bethel Turbine Generating Facility, East Salem, Oregon

Table 18, pg. 40, TYPICAL 31.5 Hz. ONE-THIRD OCTAVE BAND SOUND PRESSURE LEVELS

Ambient	Frady lawn	40 db	
100 MW	Frady lawn	68 db	
	(abmient raised by)	28 db	(subtraction by CHF)

PLEASE NOTE: This is a higher octave band than Table 20 (CHF)

D. 8/73 to 5/74, Robin M. Towne & Associates, Environmental Study of Low Frequency Noise & Vibration, Bethel Turbine Generating Facility, East Salem, Oregon

Figure 1, Polar Plot, 31.5 Hz. Octave Band Noise Levels, pg. 58

100 MW	400 ft.	82 db
100 MW	Backe	73 db
100 MW	Frady	77 db

(The above are actual measured levels at these locations. If we were to) (extrapolate these in the 31.5 Hz Octave Band (as the DEQ is now doing at) (400 ft.) the levels should be 71 db at the Backe's and about) 68 db at the Frady's)

Extrapolating does not give an accurate picture! (CHF)

DATE/OCCASION	REPRESENTATION
7/22/72 Oregon Statesman	PGE Spokesman says "Simulated tests conducted at the Bethel site have shown that in calm air a 'gentle hum' can be perceived at the edge of the site. When there was even a slight movement of air, no sound at all was heard at that distance."

WHEREAS,

A. 3/7/72 Inter-Office letter from Al Mick, MWVAPA to Vic Prodehl, Bethel substation Sound Demonstration.
"After review of the data supplied by PGE, I feel that the demonstration is not adequate in completely answering the question 'What is the noise level output of this proposed plant.' PGE should be able to present the authority

WHEREAS cont.,

with a 'Polar Acoustical Radiation Plot' taken at a set distance (suggest 50') from the center of an actual operating model of a comparable turbine running at maximum noted performance. From this type of data, known acoustical parameters can be applied to give the authority an actual plot of noise levels which can be expected at all points around the plant."

DATE/OCCASION	REPRESENTATION
9/14/72 Oregon Statesman Editorial by Wes Sullivan after return trip from visiting a 40 MW Turbine plant in Wisconsin. Wes did go to Wisconsin.	PGE officials talked of the sound of the generator being "like wind whispering in the trees." 13

WHEREAS;

A. Statement by Wes Sullivan, Associate Editor - Editorial, 9/14/72 titled COMPROMISE (Mr. Sullivan was one of the officials from Salem that went back to Wisconsin to view the Sheepskin Turbine Plant - one Twin-pac) CHF "to allay concern in the Mid-Willamette Valley about the proposed installation, PGE decided to send a delegation of local people to visit the Wisconsin Plant. As fate would have it, the Edgerton installation was not behaving as well as it was on the earlier visit. It was both noisier and smokier than expected, so, instead of bringing back disciples for the jet engine generator, PGE ended up bringing back skeptics. It should be noted, however, that PGE's problem really was that it raised the hopes of the delegation too high. PGE officials talked of the sound of the generator being 'like wind whispering in the trees.' They spoke of 'no visible emission' after startup. So when a thin plume was discernable and the sound was more like a truck rumbling down the street, observers were disappointed." 13

B. MEMORANDUM, MWVAPA, PGE FILE, from Vic Prodehl, October 4, 1972 SUBJECT: EDGERTON, WISCONSIN, GAS-POWERED GENERATOR VISITATION, page 2 "Visiting with a housewife at the farmhouse indicated in Figure 2 of the sound survey conducted June 4, 1972, which is approximately 1000 feet from the turbine powered generators, the following particulars were divulged by the lady. 14

   a. Objectionable noise at night.
   b. Odor observed with wind from the NE

I did note sound considerable above threshold due to vibration and/or low-frequency that can best be described as one standing at the bottom of a waterfall or at some remote distance from a diesel powered locomotive."

DATE/OCCASION	REPRESENTATION
11/16/72 PUC-DEC Public Hearing	Neil H. Woodley - PGE, Pg. 77 stated "Now, for this sound level to be observed, we must have no other interference near the observer such as wind blowing through the trees. The disturbance of vegetation on trees will produce sounds that will completely eliminate any descrepancy. So we need a calm period. 15 In order to disturb a sleeper, he would have to be sleeping in the house with the windows open facing the unit or sleeping outside."

EXAMPLES OF PGE MISREPRESENTATION - BETHEL TURBINE GENERATING POWER PLANT

WHEREAS,

A. DEQ STATEMENT PERTAINING TO PROPOSED PORTLAND GENERAL ELECTRIC TURBINE GENERATORS - HARBORTON, PORTLAND AND BETHEL, MARION COUNTY, pg. 3, 11/16/72 16
"Another sound demonstration was conducted in September, 1972, at an operational installation in Edgerton, Wisconsin. The Department received a description of the installation from Mr. James Welch, Managing Editor of the Capitol Journal, noting the possibility of a very low frequency rumbling sound which is reported to interfere with sleep at times. Ambient noise at Edgerton, including the turbines, was reported at 55 decibels. Higher frequency turbine noise was judged to be negligible at that location. It is not possible to make direct comparison with the Depart's data, but ambient levels of 55 dBA have caused community complaint in Oregon."

DATE/OCCASION	REPRESENTATION
5/11/73 MWVAPA Public Hearing - PGE Bethel Turbines	Ron Kathren, Health Physicist, PGE, stated "A demonstration of noise levels had been given at the last public hearing. These conditions will simulate the sound of an air conditioning system." 17

WHEREAS,

A. May 11, 1973, MWVAPA - PUBLIC HEARING, PORTLAND GENERAL ELECTRIC 18
"Mr. Chambers stated that he has called Vermont and talked to people living immediately next to a similar plant there. The Vermont neighbor stated the plant is noisy, it stinks, and it causes vibrations. Mr. Chambers also called the people living next to the plant in Wisconsin who stated the same thing. They also said it had lowered their property values."

B. PUC-DEQ Public Hearing, November 16, 1972, pg. 258, Mr. Kowalczyk (Technical Director of CWAPA) Edgerton, Wisconsin Turbine Plant 19
"The residents that we talked to near the facility indicated that some residents had filed some sort of a complaint or petition with some organization that I'm not aware of. So there may be some complaints. We had some general indications there were some complaints filed."

C. July 17, 1973, Official Board Minutes, MWVAPA, Commissioner Carson related 20
that he had received several calls complaining of vibrations near the plant.

D. August 21, 1973, MWVAPA, Portland General Electric - Status Report, pg. 2 21
"The Authority has received approximately 230 complaints relating to this plant since beginning operations. Slightly less than 90% correlated positively with actual plant operating times. Complaints may be catagorized as follows:

odor	45
Visible emissions	80
Noise	106

The majority of the recent complaints relate to noise. The primary annoyance is a low frequency rumble."

E. Memorandum - to EQC, from Director, Continuation of PGE Bethel Turbine Facility Noise Evaluation for Consideration at the EQC Meeting, July 19, 1974. 22
Background, page 1
"Mr. Roy L. Richards of R. H. Towne & Associates, Noise Consultants, reported on the results of their noise studies and concluded in essence that: (1) There appears to be basis for complaints because of noise from the PGE Bethel turbines.

EXAMPLES OF PGE MISREPRESENTATION - BETHEL TURBINE GENERATING POWER PLANT

WHEREAS cont.,

Conclusions, page 2, 1. Operation of the Bethel turbines with present mufflers at the 100 MW power level produces noise levels which exceed presently imposed limits, proposed DEQ industrial noise standards and which are readily audible in some houses up to 2300 feet from the turbines."

DATE/Occasion	REPRESENTATION
8/8/74 - Letter from PGE to DEQ	Mr. H. H. Phillips - PGE, Vice President, Corporate Counsel stated "As you know, the Company is expending several hundred thousand dollars for additional sound suppressing equipment which is expected to reduce sound emissions to virtually inaudible levels before there is any substantial likelihood that operation of the turbines will be required for other than emergency or breakdown relief." 24

WHEREAS,

A. MEMORANDUM, to EQC, from Director, Staff report - PGE Bethel Turbine Facility Air Quality and Noise Control, EQC Public Meeting - Sept. 29, 1975 25
Table I, 6/12/75 PGE Bethel Plant Subjective Noise Evaluation

Backe Residence		1:50 P.M.
	c. Master Bedroom	Slightly detectable low rumbling of equipment operating in distance. Slight sensation or ear pressure.
	d. Bathroom	Slight sensation of ear pressure.
Ringler Residence		
	b. Family room	Low rumbling was detectable when the sliding glass door facing plant was open. Noise similar to that of a distant airplane, but was definitely PGE plant. Noise was obscured by wind noise in nearby trees.

B. 10/17/75, Charles H. Frady, 390 Fir Knoll Lane N.E., Salem, Oregon described the following sensations: "About 1:35 P.M. I was mowing the lawn, using the riding power mower, which is noisy. While mowing the front lawn at 1:35 P.M. I became aware of something different, other than the noise and vibrations caused by the mower. At that time I was aware of a noise that was not normal. I felt uneasy and in my mind began searching what could be wrong. I happened to look at the Bethel plant and saw that it was running. About 1:45 P.M. I came into the house. The phone rang and I sat down on the fireplace to talk. I began to feel chest wall vibrations, pressure around my head, and pressure around my eyes. The longer I sat there the worse it became. Observed emissions coming out of four stacks." 26

DATE/OCCASION	REPRESENTATION
11/16/72 - PUC-DEQ Public Hearing	Mr. Neil Woodley, PGE stated "The conditions of our specifications to which the vendors bid stated very clearly that there be no visible emission during start-up or any visible condition." (PGE accepted the turbines on this basis)CHF 27

WHEREAS,

A. MWAPA - MEMORANDUM, From Vic Prodehl, 10/4/72, Edgerton Wisconsin visit, 28
"On the date of our visit, September 7, 1972, weather conditions were overcast showers, with visibility less than five miles. As the twin-pac was started up

EXAMPLES OF PGE MISREPRESENTATION - BETHEL TURBINE GENERATING POWER PLANT

WHEREAS cont.,
on number 2 diesel and brought to full 40 megawatt capacity within approximately 15 minutes, a brownish-opaque plume of approximately 20% opacity was observed being discharged from both stacks. At our request the plant was switched over to natural gas fuel and promptly the brownish plume changed to a very faint, yellowish cast plume of less than 10% opacity.

Of special interest was the observation of the effective plume height of being approximately 200 feet above ground level. Stack height was estimated to be less than 50 feet."

B. 7/17/73 Official Board Minutes - MWVAPA, pg. 2 29
"Recent tests conducted under 'load' conditions were unsuccessful. Mr. Roach expressed his intention to express the Authority's concern with noise, odor, and visible emissions to PGE prior to start up on power production."
Page 1, "Mr. Roach reported that testing and performance procedures had been initiated and the staff was on hand to observe these tests. The staff had noted some odor and visible emissions; however, testing was under the worst possible conditions when the engines were idling and the least efficient."

DATE/OCCASION	REPRESENTATION
6/21/73 - Legislative Envir. Comm. Hearing: SB 904, Turbine Siting Bill	Testimony by Doug Heider, PGE "stated that gas turbines would not smoke or smell and would meet all environmental standards." 30

WHEREAS,
A. Refer to Item D, pg. 4 of this report
" " " A, bottom of page 5, & top of page 6 of this report
" " " B, page 6

II. Statements on utilization of hours of gas turbine operation.

DATE/Occasion	REPRESENTATION
11/16/72 - Joint PUC-DEQ Hearing on Bethel and Harborton.	Mr. Richard Sabin, PUC asking a question directed to Mr. Arthur Porter. "Since the break-even point is 2000 hours, the economic break-even on the chart, would you tell us how many hours the units are expected to be operated in 1973-74"? 31 Mr. Arthur Porter (PGE) stated: "I think I indicated that with the expected loading as shown on the third sheet of that tabulation, that equates to about, well - - maybe I'd better put it this way: It equates to 1400 hours of full-load operation. Now, our actual operation though we would expect to be spread over at least a five month period. So you'd have partial operation over a five-month period, totalling roughly, 1400 hours for the year".
6/21/73 - Tape 21, Senate Env. & Land Use Comm. Bill No. 904	Doug Heider, PGE stated; "initially they were designed to run only a few hours a year. Hopefully that would only occur for a year or two". 32
11/10/72 - PGE Meeting	Al Stohl, Ed Wildfong and Neil Woodley (PGE reps.) Notes taken by V. Prodehl, engineer representing MWVAPA. OPERATIONAL HOURS "Minimum 250 up to Max of 3000 hrs per year or more". 33

WHEREAS,

A. Staff Report to MWVAPA, M. D. Roach, 6/18/73. "PGE's planning and representation to the public has also been deficient. PGE's initial contact with the Authority in 1971 indicated that the plant would be used for peaking purposes or approximately 250 hours per year. When the application for an Authority to construct the plant was received by the Authority, this proposal had been expanded to 500 hours per year. Even as late as November, 1972 when the Public Utilities Commission conducted a hearing on this matter, the Company was still vascillating between 560 hours and 3000 hours per year of operation. Finally, when the application for a permit to operate the plant was received by the Authority in January, 1973 the hours, of operation had increased to 4000 hours, or an eight-fold increase over that applied for in their Authority to Construct. These units were represented to the staff and to the public as peaking units". 34

B. Staff Report to MWVAPA, Michael Dolan, 6/17/74. "In the Air Pollution Emission Source Registration as completed by Portland General Electric in December of 1971, and in every contact with the Authority and the public prior to this date and shortly thereafter, the utility intimidated that the Bethel facility was planned solely as a peaking plant with intended and projected usage at a maximum of 500 hours base load operation. From mid-1972 forward, the company began to hedge on this 500 hour figure, ostensibly due to a hypothetical shortage of hydropower combined with increasing load demand". 35

C. Minutes of Senate Committee On Environment And Land Use, Hearing, 6/19/73, Senate Bill 186: Emory Crofoot, CWAPA. Mr. Crofoot said that PGE had come to CWAPA in 1970 with the suggestion of constructing a gas turbine plant. CWAPA did not have the authority to approve or disapprove the site. He was told that the plant would not run more than 250 hours in one year.

PORTABILITY

Mr. Neil Woodley - PUC-DEQ Hearing, November 16, 1972 37
"After having reviewed many such evaluations and discussing this matter extensively across the country, I have come to the conclusion that the question between the two types of equipment is basically the question of whether you want to do your maintenance work at-site or off site."
"Off-site maintenance has a considerable appeal to Portland General Electric Company."

MR. PORTER, Vic President - PGE, PUC-DEQ Hearing, November 16, 1972, pg. 184 38
"For example, I think Mr. Woodley mentioned that if you have a major maintenance, it's probably more feasible to just remove the jet engine and put it on a truck and send it to a maintenance factory like United Air Lines has a big facility there in San Francisco. They could perform major maintenance on that."
"We propose to have a spare gas generator unit on hand, at least initially, and I think we have the option to buy it if we want it after the guarantee period."

Tape 11, May 26, 1971, House Judiciary, Bill 1065, Siting of power plants 39

discussing turbines, Doug Heider - PGE

"these are the kind of plants you bring in on a box car and take them and set up - almost, almost that simple."

"The problem is the turbine doesn't have geological concern and considerations, doesn't have water concern, doesn't have thermal concern that all these other kinds do. The're sometimes temporary, sometimes put on short notice to meet demands. It's just a small plant - it doesn't come to that much".

IV. PGE's Prior Knowledge of Combustion Gas Turbine Operation.

DATE/Occasion	REPRESENTATION
11/16/72 - Joint PUC-DEQ Hearing on Bethel and Harborton.	Mr. Neil Woodley of PGE stated: "The most obvious discrepancy is in the low frequency area. In the 31.5 and 63 Hz octave band, this low frequency sound could most appropriately be described as a rumble tone. This rumble tone is airborne sound only. Those people who visited the Wisconsin site reported, and it was also reported in the press, that there was a rumble sound". 40
	Mr. Woodley stated: "A sound simulation was run at both sites to verify our choice of criteria. And what we have here is equipment that reproduces the sound of the turbine in the actual ambient where the observer is expected to be". 41
	Mr. Stoloff, Portland lawyer representing PGE stated: I'd like to ask Mr Sandberg, . . . Did you say there was a noise ordinance in Marion County? 42
	Mr. Sandburg (DEQ) responded: Yes, there is.
	Mr. Stoloff: And the Bethel installation could violate that ordinance?
	Mr. Sandburg: For nighttime use, yes.
Sometime between May 11, 1973 and June 19, 1973, Meeting with PGE, MWVAPA, Dr. G. Tsongas, Ellen Lowe, Rolf Olson and C. H. Frady	Notes taken by C. H. Frady: Mr. Hull Phillips of PGE stated no one wants them and he doesn't blame them (referring to gas turbines). 43

WHEREAS,

A. Aerothermic Sound: The Source of Noise From the Bethel Turbo-Generators. Addendum, page 7, Nov. 1973 by James B. Lee. "There I (and Mr. Towne) spoke with Dr. Robert Johnson, a senior scientist with General Electric Company, who has worked for many years on the design of gas turbines. I asked Dr. Johnson if the actual noise of combustion or the noise of the compressor blades were audible outside the engines. He replied than (sic) neither was audible, and added that the only sound of importance was the aerodynamic noise of the exhaust gas stream". 44

Same ref: James B. Lee: ". . . and as the source of the noise is outside the turbines, there is absolutely no hope of abating the noise by fitting silencers". 45

B. Beware low frequency gas turbine noise, by Robert M. Hoover, Power, May1973. "Sound pressure level (SPL) of 75 dB in the 31.5 Hz octave will produce complaints from house dwellers whose windows, doors and even china and flower pots are set into vibration.. Even when muffled, the sound has caused complaints. 46

WHEREAS

B. Abstract - Problems of Low Frequency Industrial Noise in the Community, 1973 By L. S. Goodfriend, P. E. and F. M. Kessler, Ph. D., Louis S. Goodfriend & Associates, Consulting Engineers in Acoustics, Morristown, New Jersey 07960. "The low frequency noise in the community appears to cause complaints whenever it is above the threshold of hearing which, at low frequencies, may range from 100 dB at 10 Hz to 70 dB at 35 Hz. In addition, the high level low frequency energy causes windows and glassware on shelves in residences to rattle, thereby creating fear and annoyance. Residents often complain of vibration, but no measurable earth vibrations are present. Only some building components such as walls and windows respond to the low frequency acoustic signals. Noise abatement at low frequencies is particularly difficult. Problems caused by low frequency noise in the community became serious soon after the widespread application of gas turbines as sources of power for electrical generating equipment . . .". 47

DATE/Occasion	REPRESENTATION
5/11/73 - Public Hearing Portland General Electric, MWVAPA.	Mr. Ron Kathren responded that Bethel has more sound insulation than any other site. Noise can be felt, but it is not expected to be a problem at Bethel because PGE has provided vibration insulation. 48

WHEREAS,

5/11/73 - Public Hearing
Portland General Electric,
MWVAPA.

Councilwoman for the City of Salem had asked if vibrations are as important as dBA in considering noise levels. Mrs. Lowe also asked if vibrations were a problem, would they be controlled by DEQ. Gary Sadberg replied they would be. 49

5/11/73 - Public Hearing Portland General Electric, MWVAPA.	Mr. Hull Phillips of PGE responded that if noise becomes a problem, PGE will take action to reduce the noise. 50

V. EXAMPLES OF PGE MISREPRESENTATION - BETHEL TURBINE GENERATING POWER PLANT

DATE/OCCASION	REPRESENTATION
12/3/74 - Letter to Mr. Kessler R. Cannon - DEQ Re: muffler installation at Bethel and Harborton	Mr. George J. Eicher, Manager, Dept. of Environmental Services, "As you realize we are plowing new ground in this work and because we are using new methods and facilities, it is impossible to predict results exactly nor time schedules." 51
Eng. Eval. for Air Quality and Noise for PGE's Proposed Bethel Gas Powered Turbine Generators, Salem, V. H. Prodehl, 11/8/72	"Turbo Power and Marine claim a reactive muffler can attenuate seven to ten db at the lower frequencies. It is not known the limits for which add on equipment have to meet a fifty db at 63 Hertz center-ban frequency. PGE claims that this more stringent specification could be met but at an additional cost estimated at $750,000." 52

WHEREAS,

A. Aerothermic Sound: The Source of Noise From The Bethel Turbo-Generators by James B. Lee, November, 1973. 53

"This peak, like the peak of noise from the turbines' parent device, the turbojet, occurs outside the engine. Therefore the peak noise intensity is not susceptible to reduction by mufflers added to the engine."

"There exist no theory nor body of data on sound generation from gas turbines. Moreover the exhaust gases comprise a complex triune field of sound, heat, and flow, and this field cannot be specified by sound measurements alone. It is entirely possible for sound to develop far away from the turbine, as is the case with turbojets."

"There exists no practical method to silence the aerothermic noise from gas turbines. This noise lies in a broad band centered at 2 Hz."

PUBLIC STATEMENT

ON THE EFFECTS OF THE

PORTLAND GENERAL ELECTRIC COMPANY

BETHEL TURBINE FACILITY

UPON THE BETHEL AREA RESIDENTS

PRESENTED TO THE HEARING BODY

OF

OREGON ENVIRONMENTAL QUALITY COMMISSION

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

MID WILLAMETTE VALLEY AIR POLLUTION AUTHORITY

JUNE 17, 1974

BY

CHARLES H. FRADY

390 FIR KNOLL LANE NE

SALEM, OREGON 97301

Mr. Chairman:

My name is Charles H. Frady, I live at 390 Fir Knoll Lane, NE, Salem, 2300 feet from PGE's Bethel turbine plant. I represent myself, my family and the East Salem Environmental Committee as their president. Unfortunately, for this situation I do not have a degree in engineering. I was graduated from the University of California with a Bachelor of Science degree in entomology and parasitology. I have done some graduate work at the University of Delaware in plant pathology. I worked on the staff at Oregon State University for four and a half years doing basic research in the area of biochemistry using radioisotopes under the departments of Veterinary Medicine and Entomology. I am the senior author of a scientific paper entitled " A Radioisotopic Assay Of Acetylcholinesterase In Fasciola hepatica," which was published in the Journal of Parasitology in 1967. Of course, this has no bearing upon this immediate situation, however, I trust it will help to establish my credibility with you to some extent. I am capable of reviewing the literature which I have done with regards to infrasound and this problem and understand mostly what I read. I feel qualified to know when a problem exists and one does in our community, the PGE Bethel turbines.

Most people do not know how to begin opposing or combatting a problem of this sort and this has been no exception. It is like having the world against us and certainly everything appeared to have been done to protect PGE's investment over the health and welfare of our community. This certainly is not compatible with the Constitutional rights of the public in our country but however, seems to be the mode. It is very perplexing as a layman of

having the burden of proving the problem which has been placed upon our community and also has been very expensive to us. If reputable companies plan construction of this type as the Bethel plant and state and county officials have the authority, and commissioned to do so, to approve such things, then they should make certain problems of this nature will never occur. If there is a problem then it is their duty to correct it immediately.

The impact of the Bethel plant should have first been thoroughly researched before it was constructed, by competent engineers, architects, public officials and the public which it was to directly affect. Apparently our problem was not taken seriously by those in authority during construction and after operation and in essence it has been primarily our responsibility to research the literature and expose the problems with regards to low frequency noise emitted by the gas turbines and the effects it has upon our lives and structures. It became a real problem and continues to be so since PGE and our officials were and are only concerned about meeting some sort of a standard with regards to audible noise which is only half the problem, neglecting of course, to consider the devastating effects of infrasound. When officials visited our area during operation of the plant they could not perceive the inaudible noise so therefore, to their satisfaction no problem existed..

I have included documented statements with regards to low frequency noise problems and interestingly many facts about the effects of this noise were knownbefore the Bethel plant was constructed indicating no problem was anticipated by PGE or they did not want to admit there was a potential going one step at a time getting their foot in the door very successfully.

The sound expert Robert M. Hoover states "if low frequency sound of a gas turbine intrudes into a residential district, it can cause considerable annoyance. Sound pressure level of 75 dB in the 31.5 Hx octave will produce complaints from house dwellers whose windows, doors and even china and flower pots are set into vibration. Purchasers of gas turbines should realize that low frequency sound, particularly the octave band centered on 31.5 Hz can create a problem. This band should be given special attention, instead of being automatically eliminated from consideration in noise control work, as it too often is". It certainly was in this case. "Muffler volume for a 20 - MW turbine exhaust may be 3000 to 4000 cu. ft., with weight of 30,000 to 50,000 lbs. (including the outer shell). Even this effort may not give the noise control needed for the 31.5 Hz band". According to Hoover, even with thicker baffles, insertion loss in the 31.5 Hz band was only 7 to 8 dB. "Low frequency loss is hard to obtain".

Remember, the low frequency noise in our homes is also below the 31.5 Hz octave, in fact 5 Hz and below! Will mufflers correct this? In reference to these data, no. The act of PGE producing this noise on our property may be considered illegal trespassing in the court.

According to Mohr, et. al., during exposures to the human ear to stimuli of 15 to 17 cps "slight dizziness, nausea and a feeling of apprehension were experienced" by his subjects. "In both World Wars, middle ear changes noted among German submarine diesel room personnel were attributed to the infrasonic and very low sonic noise fields caused by the suction strokes of the engine cylinders. The War II snorkels superimposed rhythmic pressure changes at about 1 cps which appeared to add to the incidence and severity

of middle ear pathology. Even if the audible noise is masked the unpleasant sensations of infrasound can be felt by the body".

During tests conducted by Mohr, et. al., on humans exposed to low frequency noise (5-10 cps), the following symptoms or problems were noted; uncomfortable pressure buildup due to atmospheric pressure changes in the middle ear, nostril vibration, and abdominal wall vibration. Maximum intensity low sonic exposures (up to 30 cps) produced even more violent responses such as gagging, increased chest wall vibration, visual field vibration, respiratory rhythm changes and post exposure fatigue after a day of repeated testing.

Another researcher Kryter, states that "it is conceivable that intense low frequency sound and acoustic energy at frequencies below about 20 Hz could have particularly adverse effects on man. In addition to possible stimulation of the vestibular system and pain in the ear, sound in the region of 10 - 75 Hz or so could cause resonant vibration in the chest, throat, nose cavities, and the resonant frequency of the eyeball is near 5 Hz."

The reason for these comments is that they are documented facts and precise adverse effects we have experienced during plant operation. The different power settings, whether it was 25 MW or 110 MW did not make that much difference. Restricting PGE to 55 MW was no solution.

A paper entitled "Does infrasound make drivers drunk", by Dr. Bryan and Dr. William Tempest describe their involvement in a noise nuisance problem in a large new drawing office close to the Concorde engine test bed at Bristol.

Although this office had been designed according to the best acoustic noise criteria available at the time, it proved to be uninhabitable to some of the draftsmen when the engines were on test several hundred yards away. (These were aircraft jet engines similar to the Bethel turbines). They said "they felt uneasy and disturbed, symptoms which are not usually associated with noise annoyance in the normal frequency range." "The acoustic insulation of the drawing office turned out to be satisfactory for sounds in the normal range, and it was concluded that the annoyance was probably due to a just audible 8 Hz tone, whose level varied from place to place throughout the office; in other words, an infrasonic standing wave pattern had been set up by the engine noise. One point of interest in the threshold below 50 Hz is that there is a change in its slope at about 15 - 18 Hz. This occurs where low frequency tones lose their smooth tonal quality and acquire a subjective sensation of roughness. This effect corresponds to the well known fusion effect in vision, where a modulated light source no longer appears to be continuous but begins to flic ker. Below the fusion frequency the presence of the tone is described as being "rough" or having a "popping effect", while still lower, below 5 Hz the sound appears to have a "chugging" or "wooshing" sound and the subjects report their eardrums feel as though they are being moved in and out."

A perfect description of the Bethel problem! Ask some of the subjects of our community to describe the sound of the turbines as it appears to them!

Bryan and Tempest also conclude that the effects of driving and infrasound based on laboratory experiments are similar to those induced by consuming fairly large quantities of alcohol. They speculated that the effects of alcohol and infrasound will be cumulative. We can attest to the cumulat-

ive effects the Bethel turbine infrasound had upon us. Infrasound does not need to be audible to make its presence felt, a very important point for determining standards for PGE to meet in operating their turbines.

Alexander, states, "severe physiological and psychological problems are caused in and to the human body due to noise. Noise, even at low levels causes blood vessels in peripheral zones to constrict, decreasing the blood supply there".

The constant noise and vibrations of the Bethel turbines are very capable of producing severe related physical and mental impairments. I feel certain it has already done so to some of us.

As you may know the classifications of ongoing noise exposure is divided into three types, steady-state, fluctuating noise and intermittent noise. Since the construction of the Bethel plant began and during the operation of the turbines and presently, we have been unduly exposed to all three types. The steady-state low frequency noise is a problem we absolutely cannot live with nor tolerate. Most of the mechanical energy emmited by the turbine's exhaust is contained in a band of very low frequencies well below the threshold of audibility, actually in the band below 5 Hz. The impulsive noise sets the components of a structure into vibration with regards to resonance frequency and can be explained further from the reference which this information is taken, which is a study on the effects of sonic boom and similar impulsive noise on structures.

"The manner in which a given structure vibrates is basically the result

of the pressure signature distributed over the entire structure. The structural response will depend on the structures location, size, shape, type of construction, manner of assembly and state of maintenance. The frequency-response characteristic of the structure will also have a major influence." It appears, from the literature, and our experience that structures most susceptible to low frequency noise are buildings and generally confined to brittle secondary structures, such as plaster.

"Representative indoor peak displacement amplitudes are 0.8 mm (0.032 in.) for an exterior wall of a wood frame residence structure and 0.5 mm (0.02 in.) for windows, at boom peak pressures of 108 N/m^2 (2.25 lb/ft^2). Deflections of this order and larger are observable in large plate glass windows under buffeting by moderate winds. This is not surprising, since the cited pressure could be produced locally by the impact of a 48 km/hr (26 knot) gust, although with a much different waveform." During this study it was shown controled overflights with unmonitored structures subject to a range of nominal peak pressures from about 48 to 154 N/m^2 resulted in damage claims, predominately for glass. This damage results from only one single sonic boom at these pressures. Granted, the acoustical energy from the Bethel turbines in N/m^2 is considerably less as it bombards our homes. If one bends a piece of baling wire once or twice it will not break. However, we all know that continuous bending at the same point will finally result with a piece of broken wire. The constant bombardment by the Bethel infrasound at our homes for 3½ months with the relatively lower acoustical energy than that of a single sonic boom is definitely responsible for the new cracks in the plaster of our homes. It is not a coincident for the homes to have new cracks in plaster. According to the literature, the sound tests by Dr. Jensen and Towne & Associates and our

observations, there is no way of getting around the fact that the Bethel turbines are responsible for the structural damage present in our homes.

Towne's report states there is vibration present in the homes as the plant is running but tests are inconclusive, which was to be expected. The background noise elaborated upon in Towne's report, his insinuations and statements are an insult to our intelligence. Can you imagine, the birds singing, the dogs barking and occasional lawn mowers and crackling fires in the fireplace causing our damage? They are really groping to protect PGE. The acoustical energy may cause related physical and mental damage and can possibly be associated with heart failure after extended exposure due to hypertension and effects upon the circulatory system. Some of us have had to take many tranquilizers in order to withstand the pressure of the problem.

An important phenomenon that leads to magnification of over-pressures is vibrational resonance within structures. "These resonances may be of two kinds: those associated with vibrations in structural members such as beams and those associated with enclosed volumes such as rooms coupled with the exterior by windows and to the interior by doors. A room coupled to the exterior by an open window and having an open door leading to another room will behave as a Helmholtz resonator. If an impulsive noise such as a sonic boom (and low frequency noise from the Bethel turbines) is incident on one of the open windows the maximum over-pressure measured within the room may be magnified by a factor of 2 with regards to room resonances. Another phenomenon that might contribute to the magnification of a sonic boom or low frequency energy is that associated with reflection from a rigid surface. (It is interesting to note that most of the cracks in our homes are near fireplaces). A

single reflection from a rigid surface can cause a doubling of the boom over-pressure. Double reflections by two intersecting surfaces can quadruple the boom-pressure. It is possible that magnification factors of 20 could occur." No wonder the dishes in the cupboard rattle and the walls and ceilings crack in our homes when the plant runs!

"Most of the energy in a sonic boom is associated with spectral components of the order of 5 hertz or less." Again it has been demonstrated that this energy exists in our homes during operation of the Bethel turbines. "Structural vibrations can build up under the influence of sonic booms. One of the few large structures that might be damaged by a sonic boom is a long roof lightly attached to the main frame of a building." Our living room has suffered extensive damage and has a span of 30 feet 8 inches.

It has been questioned why some complain and others do not with regards to the Bethel turbine low frequency noise and all the other problems, and why some houses are damaged and others are not. Prestressing, stress concentrations and faulty material often found in structures are considered to account for part of the difference between the results of two sets of experiments where boom studies were conducted. "A structure may accumulate damage often not visible from vibration, weathering, aging, etc., which eventually terminates its life. The sonic boom (or low frequency energy) could be another such contributor, and invisible damage could be considered to accumulate with repeated exposure. Visible damage from impulsive noise, when it occurs, will depend in part on how much of the lifetime of the structure has already been consumed." The homes in our area vary with age and types of construction and damage. We were bombarded by the Bethel acoustical energy for 3½ months for

at least 12 hours per day and many days more than that. "Cumulative damage may therefore be referred to in a context approximating structural fatigue and the likelihood of visible damage owing to low frequency energy thus depends upon how far the structure is along its lifetime. In general structures near the end of their lifetime would have a lowered threshold for damage."

Other main reasons for the discrepancies in numbers of complaints and who does not complain is due to human nature, that of not wanting to get involved. People are afraid of losing their jobs if they go against companies such as PGE. They are afraid of being sued. They are afraid to make public statements. Many people are apathetic and could care less about anything. Some desire to sell their homes and will deny the problem for the sake of selling. There probably are many more reasons. The public cannot be condemed for the situation in which they have been placed. This is a good example of the citizen being usurped.

After the turbines had been in operation and probably due to our bitter complaints PGE contracted Robin M. Towne & Associates, Inc. to conduct sound tests in the Bethel area. Their initial conclusions and tentative recommendations to reduce unacceptable noise levels in the community, should such levels occur are as follow: 1. Infra-sound as defined herein is not considered to be of sufficient magnitude to cause any physiological effects outside the property limits. 2. A 31.5 Hz tone will be detectable at 400 feet and could cause annoyance with continuous exposure. 3. State-of-the-art retrofit procedures are available to reduce the levels to meet DEQ criteria. I would like to see proof of this statement. Obviously this original work is not valid nor complete since PGE had to pay $12,500 to have additional sound studies conducted. I feel the qualifications of the original test is lacking since it was stated that infrasound was not considered of sufficient magnitude to

cause problems. The credibility of future work or statements must be thoroughly examined. It is not them being untruthful, but it is what has been deleted and not discussed.

Facts are facts, and one cannot put a "band-aid" on a problem and consider it solved. Yes, it has been and is truly an ordeal that parallels that of war and should not be imposed upon any human being.

The plant construction began during the summer of 1972, mind you, one year before PGE received their operating permit. The public did not know what PGE was doing and that a gigantic mess was soon to appear at our front door step. A common tactic of large corporations and possibly the government in view of current affairs; that of keeping the public in ignorance.

It is interesting to note that nowhere in the Marion County Uniform Zone Code does it specify or approve of a 180,000 hp generating plant in an Industrial Park zone. I challenge anyone to show me. Anything of this nature which is equivalent in power production to that of Detroit Dam is considered heavy industry and must be in a compatible zone. Our county officials have flagrantly allowed the construction of this plant violating the statutes of the ordinance and continue to make further concessions and allowances for the benefit of PGE and possibly their own egos and reputations. It would be a real "Watergate" to expose how this all came about. Anything of this magnitude must go before the County Planning Commission with regards to land use, which it did not. It should also have come before the public before the construction was 85% complete. Long before the permit to operate was granted evidently PGE had the assurance of constructing and operating this plant. No company

would think of investing ten million dollars or more if they did not first think they would meet their goal. We all know now that these turbines have been in the planning for years and PGE has plans for many more to come. PGE now faces public problems which they did not anticipate because of poor planning and management. We would like to know exactly, how did PGE really get the approval to construct the Bethel turbines?

The Bethel plant is a public nuisance in many respects. Verbal and written complaints have been submitted by the scores with regards to low frequency noise and the damage the plant causes both to our homes and our bodies. Commissioner McCarthy's response to this was that "it was a matter of judgement". Mr. Wes Kvarsten at one of our meetings prior to the operation permit approval stated that if PGE was violating the code they, the C.O.G. and the Board of Commissioners had the authority to shut the plant down. Mr. Weathersbee stated to me that PGE has never been able to meet the DEQ noise standards. As to this date they still fail to recognize our complaints, our buildings falling apart and the decline of our personal health and welfare constituting a public nuisance and direct violation of the code and of the permit.

PGE continues to "bulldoze" their way fully knowing the problems they have created, impressing industry with the importance of this plant, impressing those to be impressed by their landscaping before June 17. You are faced now with a decision to grant PGE permission to install their mufflers and continue operation which the county officials have already given their approval. The wording at the beginning of HB 1669, passed by the 1971 Oregon Legislature is as follows. "The Legislative Assembly finds that the increasing incidence of noise emission in this state at unreasonable levels is as much a threat to

the environmental quality of life and health, safety and the welfare of the people of the state as is pollution of the air and waters of this state." This act authorized the Environmental Quality Commission to "adapt reasonable statewide standards for noise emissions permitted within this state and to implement and enforce compliance with such standards."

The Uniform Zone Code for Marion County, Section 151.110 (d) (1) states, "no vibration, other than that caused by highway vehicles and trains, shall be permitted which shall endanger the health, welfare or safety of the public or so as to constitute a public nuisance." The Bethel plant produces vibrations due to infrasound at 5 Hz and below and a reasonable statewide standard would be such to prevent this noise in and around the homes of citizens, to protect the public health and welfare and the homes in which they live.

It states in the zone code no structure may exceed 45 feet in height. Yes, there is an exception for flues or chimneys to exceed the regulation. Yet, there is no exception for sound baffling equipment to exceed the height. The structures PGE plans to install will increase the existing height of the stacks by thirteen feet, significantly marring the appearance of our area further in which we Did take pride in living.

To date the residents have been nothing but "guinea pigs". We do not take the word of PGE nor anyone else that mufflers will solve anything and we do not intend to have any future experiments imposed upon us. Enough is enough. During the hearings for the approval of the operating permit PGE blatantly stated the Bethel plant would be a "good neighbor", perfectly safe and we wouldn't even know when it was operating. There has already been one

huge explosion shaking and tearing at the homes and of course the rest is all a matter of record now. So you see, PGE was certainly lacking in expertise and as far as I am concerned still does. I must emphasize the sound experts of DEQ had a lot to learn before making the statements they did at the hearings last year. Any further testing or operating of this plant is a violation of the code, is completely and categorically unwarranted and unsafe in respect to the health and welfare of the Bethel residents, the public. We are the experts, we know what is happening to us. We live there!

I have not yet mentioned the air pollution problem. You know as well as I, in order to prove that air pollution is damaging which is present takes a long time. The problem slowly takes its toll upon life in the manner that does cancer. The effects and results are often recognized too late. The plant thus far has not met the operating permit with regards to air pollution. The Pratt & Whitney turbines are certainly not able to meet the proposed EPA standards of NO_x contaminants unless retrofit with water injection which of course is out of the question for many reasons. They have never met the particulate matter standards of the permit.

During the three and one half months of operation many of the nearby residents complained about symptoms related to air pollution and had good reason to do so because of the vast amounts of contaminants the turbines produced and released into the air in which we live.

It is unbelievable to me and many others that well educated people have allowed this problem to ever occur and to even consider future operation. It is a well known fact that when a large corporation makes an error it is a

"dandy". The Bethel plant is a perfect classic example. The plant should have been tested thoroughly before placing it in the midst of many homes. Somebody with authority in this State must realize the problems inflicted upon the innocent public, a driving force for the benefit of a large corporation, greed for more profits, and inconsideration for the public health and welfare.

Action must be taken to STOP IT before more and permanent damage is experienced!

This is a serious and grave scar upon the environmental record of the State of Oregon. You must react immediately to the exigency!

Thank you.

REFERENCES

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3. Hoover, Robert M., Bolt Beranek and Newman Inc. 1973. Beware Low-Frequency Gas-Turbine Noise. Power, May, pp. 87,88.

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5. Kryter, Karl D. 1970. Effects Of Noise On Man. Academic Press, New York.

6. Mohr, George C., J. N. Cole, E. Guild and H. E. von Gierke. 1965. Effects Of Low Frequency And Infrasonic Noise On Man. Aerospace Medicine. Vol. 36, No. 9, pp. 817-824.

7. The National Bureau of Standards. 1971. The Effects Of Sonic Boom And Similar Impulsive Noise On Structures. PB - 206 725, NTID 300.12, Dec.

8. The U. S. Environmental Protection Agency. 1973. Public Health And Welfare Criteria For Noise. 550/9-73-002, July.

9. Towne, R. M., & Associates, Inc. 1973. Report, Turbine Noise Study, PGE Bethel Substation, Salem, Oregon.

10. Towne, R. M., & Associates, Inc. 1974. Report, Environmental Study Of Low Frequency Noise & Vibration, PGE Bethel Turbine Generating Facility, East Salem, Oregon. August 1973 to May 1974.

11. Uniform Zone Code For Marion County, Oregon, Polk County, Oregon. Adopted November 13, 1970.

December 13, 1979

Department of Environmental Quality
522 SW 5th
Portland, Oregon 97204

Dear Sir(s) or Madam(s):

I want to take this opportunity to express my objection to the operation of PGE's Bethel plant.

I live at 415 Hampden Lane NE, approximately 1500 ft north - northeast of the plant site. We bought this home approximately 15 years ago, long before PGE built the plant. We had a nice quiet neighborhood in those days.

I don't keep a diary so I don't know when PGE built their plant or how long it operated at the beginning. I do remember that both my wife and myself were disturbed by the noise and vibrations at that time. We experienced different sensations due to the vibrations, my wife complained of feeling lightheaded and of nausea and was quite irritable. I was bothered by a tickle or itching sensation deep in my ears. I wasn't able to sleep and after several near sleepless nights I was near exhaustion and called DEQ and complained. I was told that PGE was shutting down the next day anyway. The vibrations seemed to be of a different nature back then, there were more visual signs, such as pictures vibrating on the wall and dishes rotating in the hutch. Some days a particular dish would make a complete rotation and on other days it would hardly move. Some days were much worse than others.

Then there was peace, the pheasants and quail returned to our back yard and the moles and gophers to my garden. PGE would start their generators from time to time but only for short runs. We weren't bothered and didn't complain. Then PGE started up again in October, I'm told it was the 19th, I wasn't really bothered by it and thought it was probably only temporary. On the 29th or so a representative of DEQ came around in the evening to take a survey of the neighborhood. I recall talking with him and at that time I told him it wasn't bothering me, and if it didn't get worse I wouldn't complain. He didn't come in the house although I invited him in. After he left my wife said it was bothering her some and she wished he would have talked with her. Not much more was said about it until about Thanksgiving when my wife started complaining about the constant rumbling and vibrations in her head. She said she couldn't sleep in our bedroom which is in the southwest corner of the house and so started sleeping in the guest room. She has progressively gotten worse and is now to the point where I'm concerned about her health. I myself am starting to find it difficult to sleep and am irritable.

I have checked with our local DEQ office (Mr. St. Louis) and have been informed that PGE is operating within it's permit limits. I challenge the adequacy of these limits, they must be too lenient to be effective. These limits should protect the health of nearby residents and should be enforced. Instead

of relaxing the restrictions on the Bethal Plant I feel new, more stringent rules should be adopted and put into effect immediately. Incompetence or negligence should not be tolerated when it comes to establishing the rules that affect the personal health of the local residents living near the Bethal Plant, neither should material gains.

Other commitments prevent me from attending the hearing in Portland, but I want to to on record as opposing any extension of any current permit and requesting that operation of the Bethal Plant be stopped until a resolution to the current problem is reached.

I also request acknowledgment of this letter, please find a self addressed envelope enclosed.

Thank you.

Ralph Delany

Ralph Delany
415 Hampden Lane NE
Salem, Oregon 97301
Phone: 364-8997

Dec. 13, 1979

Mr. W. V. Young
Department of Environmental Quality

Dear Sir:

I am Darlene Delany, reside at 415 Hampden Lane N.E. and I want to be on record as being opposed to P.G.E.'s Bethel Plant.

Its very difficult to explain the way the rumble, squealing sounds and vibrational effects how I feel. The pressure I feel in my head and ears results in nervous tension and aching muscles, making it impossible for me to carry on the everyday routine of activities as a homemaker and part-time wage earner. I think its very unfair I and others are subjected to this kind of treatment.

I want to reaffirm my opposition to the Bethel Plant.

Sincerely,
Darlene Delany

Dec 79

5395

December 20, 1979

B. E. Mikulka
Vice President-Research,
Development & Environment
Evans Products Company
Post Office Box E
Corvallis, Oregon 97330

Dear Mr. Mikulka:

I am answering your letter of December 17, 1979 to the Environmental Quality Commission. As I indicated to your representative, Diarmuid O'Scannlain, at the Commission's meeting on December 14, we will be sending you copies of all material submitted by persons who appeared at the meeting in regard to Evans Products.

Transcripts of Environmental Quality Commission meetings are not made. However, we can furnish you with minutes of the meeting when they become available, and duplicate tapes can be made of that portion of the meeting which concerned Evans Products for the duplication fee of $5.00 per tape.

The Friends of Benton County did not submit to the Commission a copy of the signed petition they presented to Governor Atiyeh, so we cannot fulfill your request for the names of those who signed the petition.

Sincerely,

WILLIAM H. YOUNG
Director

WHY:cs

cc: Diarmuid F. O'Scannlain

Would appreciate copy of filings made by McNees, Boyle + Marcotte re Evans Thank you.

DIARMUID F. O'SCANNLAIN

GEN, ROBERTS, O'SCANNLAIN,
ROBERTSON & NEILL
LAWYERS
7 FIRST NATIONAL BANK TOWER
ORTLAND, OREGON 97201

TELEPHONE
226-3317

AO

ctor

PARTMENT OF ENVIRONMENTAL QUALITY

ecember 27, 1979

iarmuid O'Scannlain--

er your request to Mr. Young after
he EQC's December 14 meeting, enclosed
re copies of the materials submitted
t that meeting in regard to the Evans
roducts Plant.

Carol A. Splettstaszer
Assistant to the
Environmental Quality Comm.

Rec'd 12/14/79

14 December 1979

TO: Environmental Quality Commission

FROM: Friends of Benton County, 7610 NE Pettibone, Corvallis, Or. 97330

SUBJECT: Air Contaminant Discharge Permit for Evans Products Company

I am Charles A. Boyle speaking on behalf of the Friends of Benton County. You received a copy of our petition and request for a delay in issuing the Air Contaminent Discharge Permit to Evans Products for their Battery Separator Plant in Corvallis.

Our concern is for the public's health and the risks involved by the release of large amounts of toxic trichloroethylene (TCE) from a plant located near a residentual area. We agree with DEQ and Evans Products that it is the levels of TCE in the outside air that is important. DEQ's judgment that the health of nearby citizens would be protected was based upon 12 air samples taken on 2 November 1979 from 6 sites in south Corvallis. We feel that there was insufficient data to support their conclusion.

BACKGROUND

During the past several years, Evans Products developed a new process for making plastic battery separators. The process involved using TCE as an industrial solvent. In late 1978, Evans began full scale production in direct violation of state statutes. On 13 February 1979, DEQ received an anonymous note stating that 300 to 500 gallons of TCE a day was being lost by Evans Products. No investigation or action was taken by DEQ. In April 1979, DEQ accidently discovered the illegal process while investigating another violation by Evans Products. In May, Evans Products was issued a Notice of Violation. Evans notified DEQ in writing using a "Notice of Construction" form and was granted a temporary permit. No civil penalty was levied against Evans Products.

RAW MATERIALS

The following is a list of raw materials and the approximate smount used annually;

1.	Amorphous silica	2,000,000 pounds
2.	Polyethylene powder-pellets	925,000 pounds
3.	Oil, rubber extender type	150,000 gallons
4.	TCE, industrial solvent	95,000 gallons

PROCESS

A plastic sheet is made from the silica and polyethylene which is impregnated with oil. The thin sheet of plastic passes through a tank containing liquid TCE to remove the oil which makes the plastic porous. The plastic sheet passes into a drying oven to remove the TCE. The plastic is then cut into small pieces and boxed for shipment.

POLLUTION CONTROL "HIGHEST AND BEST PRACTICABLE"

The waste air from the tank containing the liquid TCE and the surrounding work area passes over a chilled condensor system and on to a activated carbon bed to remove the TCE vapor before venting to the outside air. DEQ required 2 expensive source tests of this equipment. During the first test, it was discovered that the carbon beds were loading up with TCE and releasing large amounts of TCE. The cycle time for cleaning the beds with steam was shortened and a second test was conducted. It showed that 10 pounds an hour, 240 pounds a day, of TCE was being released. This is a 95% efficiency from that source.

This one source provides the basis for issuing the permit. A computer model of this source showed a 24 hour average of 15 parts per billion of TCE at a distance of 120 meters from the plant decaying to 2 parts per billion at a distance of 480 meters. It was also found that the concentration of TCE in the plume downwash from the present stack could reach as high as 18 ppm for short durations of 3 to 10 minutes.

Three weeks before the public hearing in Corvallis on 28 November 1979, DEQ discovered a second source of emission from the drying oven which was not connected to the pollution control equipment. DEQ estimated that 80 gallons or almost 1000 pounds of TCE a day were being lost from this exhaust. It will be connected to pollution control equipment, however the draft of the proposed permit presented on 28 November 1979 makes no mention of this source of emission.

At the public hearing, DEQ stated the 100,000 pounds of TCE ~~was~~ were being lost a month and that Evans Products was operating on a 5 day work week. DEQ's estimate of the loss was 600 tons a year. However; in the 10 December 1979 issue of the Corvallis Gazette-Times, An official of Evans Products said the measured consumption of TCE was 720 tons a year.

DAILY LOSS

The following is a summary of the daily loss of TCE based upon DEQ's figure of 100,000 pounds per month and Evan's measured consumption of 720 tons a year;

	DEQ-Loss of 5000 pounds a day	Evans-Loss of 6000 pounds a day
1. From carbon beds:	240 pounds (5%)	240 pounds (4%)
2. Lost through water:	22 pounds	22 pounds
3. Estimated from drying oven:	976 pounds	976 pounds
4. Other fugitive emissions	3762 pounds	4762 pounds
5. Total daily loss	5000 pounds	6000 pounds

The present daily loss during each work day is $2\frac{1}{2}$ to 3 tons of TCE. When the loss from the drying oven is connected to pollution control equipment, the daily loss will still be 2 to $2\frac{1}{2}$ tons a day.

TRICHLOROETHYLENE (TCE)

TCE is a clear, colorless, volatile liquid that is heavier than water and will not dissolve in water. As a vapor, TCE is almost 4 times heavier than air. It is a toxic, hazardous substance, a mutagen, and a potential cause of cancer in humans.

Current U.S. standard for workers exposure is 100 ppm. Most other countries, having assessed the toxicity of TCE, have established much lower limits to as low as 2 ppm. There is no standard for public exposure. However; in a Health Effect Summary Document received from EPA, the following comment is made, "Considering the currently available laboratory evidence of its carcinogenic potential minimizing all human exposure to trichloroethylene is considered important."

REASONS FOR A DELAY IN ISSUING PERMIT

1. The large amounts of TCE, $2\frac{1}{2}$ to 3 tons, being emitted each working day.
2. TCE is toxic, a mutagen, and a potential cause of cancer in man.
3. The plant's location near a residential area.
4. The permit addresses on 4 to 5% of the total TCE emissions.
5. The permit establishes a precedent allowing a company to start a process without a permit, in violation of state statutes, without penalty.
6. The second stack from the drying ovens was discovered just 3 weeks prior to the public hearing.

7. DEQ estimates of public exposure were based upon 4 to 5% of total daily emissions. Informal inquiry and rough calculations by several meteorologists and air pollution experts indicate that 2 to 9 ppm of TCE or higher could be in the air downwind of the plant for as far as ½ mile under worst case conditions.

8. No tests have been conducted of nearby residents for possible exposure to TCE. Many have complained of symptoms similiar to those caused by TCE exposure.

9. A thorough materials balance has not been completed which would account for loss of the fugitive emissions.

10. The token ambient air test consisting of 12 samples taken on 2 November was inadequate. Evans Products was notified prior to the testing and no consideration was given to prior weather conditions. The six sampling sites were generally upwind of the plant. The levels of TCE found in the air were less than those based upon the computor model which addressed less than 5% of the toal emissions. The air mass required to contain one days emission of TCE to a level of 2 ppb would cover 100 square miles to a depth of 2978 feet. DEQ's measurements more closely approximate the background levels of TCE rather than the amounts which can reasonably be expected downwind of the plant under stable weather conditions.

Under extremely stable weather conditions TCE could flow down, like water, toward the Willamette river. It could be trapped in the narrow confines of the river and build up to fairly high concentrations in the air.

A slight, .5 to 1 mph, wind moving across the plant could pick up fairly high concentraions of TCE and carry it downwind into the residentual area.

11. DEQ did not account for the use of 150,000 gallons of oil a year. Could it be contaminated with TCE and how is it being disposed of?

AIR, WATER, AND NOISE POLLUTION BY EVANS PRODUCTS

The Department of Environmental Quality is responsible for the enforcement of laws relating to air, water and noise pollution. The Department is aware of the following violations by Evans Products in Corvallis;

1. Exceeding the limitations oftheir NPDES waste water discharge permit. During the period from September 1977 through September 1979, they exceeded the limits of their permit 18 of 25 months or 72% of the time.
2. Unauthorized water discharge into public waters. In addition; the permit states, "The diversion or bypass of any discharge from facilities utilized by the permittee to maintain compliance with the terms and conditions of this permit is prohibited."
3. Exceeding noise source standards. This has occured since May 1979.
4. Permitting wood dust and fiberglassdto be deposited on the real property of another person. Their permit states "Particulate matter which is larger than 250 microns and which may be deposited upon the real property of another person shall not be emitted." This has been occuring for several years.
5. Emitting Air pollutants from a new process without an air contaminant discharge permit. This was the process involving TCE.

The total civil penalty which DEQ has levied against Evans Products for these violations has been 150 dollars.

The Friends of Benton County feel that the credibility of the whole pollution control program has been lowered. We are very skeptical of DEQ and their ability to enforce the permit involving TCE.

DEQ's handling and investigation of the process involving TCE is hard to comprehend. The only way it makes sense is if it is viewed from the point of view of Evans Products. DEQ was more interested in the health of Evans Products than in the Public's Health.

The Corvallis City council as well as hundreds of citizens ask that you delay issuing the permit until such time that sufficient data has been gathered and a thorough evaluation show that the public health will not be endangered by the release of large amounts of TCE.

Charles A. Boyle
Board Member
Friends of Benton County

FOR YOUR INFORMATION—

YOU SHOULD CHECK D.E.Q. PERMITS
FOR EVANS PRODUCTS
SUBMICRO PLANT
WATER AND TCE (TRICHLOROETHYLENE)
WATER IS BEING DISCHARGED INTO
DRAIN BETWEEN PLANTS
TCE INTO AIR - LARGE AMOUNTS
300 - 500 GALS./DAY
SOME EMPLOYEES HAVE PASSED OUT
FROM FUMES

rec'd 2-13-79

2/22/79

Grace - This was given
to Inga on the sly. Salem
will look into it & I'll
respond to Inga

Fritz

(OVER)

Evans battery operation polluting without permit, says DEQ official

By Kevin Miller
Of The Gazette-Times

26 April 79

The regional director of the state Department of Environmental Quality says Evans Products Co. has been emitting air pollutants from a new process at its battery separator plant in south Corvallis without an air contaminant discharge permit.

John Borden, a department official with jurisdiction in Corvallis, said the pollutant discharge was discovered recently during a routine invesigation of the Evans plant.

He has referred the charges to the department's investigation and compliance division.

Piotr Zenczak, president of Evans' Corvallis division, said this morning that Evans did not seek a pollution permit for the process because "we didn't think we needed a permit."

"It is our position that there are no emissions," said Zenczak. "Now they say we need a permit, so we'll get a permit."

Borden said Ted Groszkiewicz, an environmental department official, was conducting a routine investigation of a report of possible water pollution from the Evans plant when he saw what appeared to be a new building on the property. The building was actually an older building on the south side of Crystal Lake Drive which had been connected to Evans' new warehouse, built in late 1978.

Zenzcak acknowledged this morning that Evans is using a new process to make battery separators in the old building. Groszkiewicz and Borden said the department had not been notified, as required by department rules, of Evans' plans to expand or make major modifications to the battery separator plant. Such notification is required to give the department a chance to ensure that any new process will comply with pollution regulations.

"It looks like the emissions are primarily air pollutants," Borden said this morning. "They apparently come from a solvent used in the new battery-making process."

There's no way to tell the exact nature and amount of the emissions until the department makes a more extensive investigation, according to both Borden and Groszkiewicz.

Zenczak said a solvent recovery unit in the building recovers the fumes from the new process. Groszkiewicz acknowledged that Evans has "very sophisticated" anti-pollution equipment on the plant.

Borden said the apparent sophistication of the anti-pollution system is part of the reason he hasn't ordered Evans to halt operation of the battery-separator process until the company gets a permit.

He said Evans will be required to apply for a permit, and there is a possibility of civil penalties or fines. Whether there will be civil penalties or fines, he said, will partly depend on how much pollution the un-permitted process has emitted so far.

It will be "a matter of weeks, but not a month," before the investigation is done and the department decides what to ask of Evans, Borden said.

There has been some confusion over whether Evans has violated the building permit for the new warehouse by using it as a manufacturing area. Ralph Overbay, city building inspector, said this morning that he visited the plant Tuesday and is confident that Evans is using the new building only as a warehouse, and not as a manufacturing area.

Benton group petitions f

10 Dec '79

By Ronald J. Schleyer
Of The Gazette-Times

Pointing out that Evans Products Co. is emitting toxic trichloroethylene (TCE) from its southeast Corvallis plant in much greater amounts than previously thought, a land-use watchdog group has launched a petition campaign urging caution in authorizing the emissions.

Friends of Benton County is circulating the petition requesting delay of a pending state permit for Evans' TCE emissions in southeast Corvallis from its battery separator plant at 1115 S.E. Crystal Lake Drive.

The Corvallis group plans to submit the petition, with signatures now being collected, at Friday's state Environmental Quality Commission hearing in Portland. The commission controls the Department of Environmental Quality.

The Corvallis City Council already has agreed — at the request of the citizens group — to support a call for further study of TCE and public health. The Evans plant lies within the city.

Friends of Benton County asked the County Commission for similar support of its request last week. The commission has invited Evans Products to respond before it takes action, Chairman Barbara Ross said today.

In addition, the citizens group on Friday wrote a letter to the office of Gov. Vic Atiyeh — who is away on vacation — asking him to direct more rigorous examination of the permit request by the department, which has been analyzing the matter since last spring.

Neither the governor's office nor the environmental department had an official response this morning to the demands of Friends of Benton County, led by William C. Denison of Corvallis.

The environmental department on Nov. 28 conducted a hearing on whether to continue allowing emission of 43 tons a year of the widely used industrial chemical that has been shown to cause liver cancer in mice.

The tonnage of emitted TCE is important because it is the basis for calculating the resulting concentration in the air surrounding the plant during various kinds of weather.

Testimony at the Corvallis hearing established that the actual emission from Evans' plant is 600 tons a year — 14 times more than the estimate announced by the environmental department before the hearing.

And in an interview today, an Evans official said the measured consumption of TCE in the plant processes — which provides one of the best estimates of actual emission — is 720 tons a year.

or delay in Evans' permit

The official, Bohuslav "Mike" Mikulka, a vice president of Evans, said he agrees with environmental department explanations at the hearing that the important thing is not total emission but TCE concentration in the air.

And Mikulka said the company has faith in the accuracy of environmental department measurements, also announced at the hearing, that TCE concentration does not exceed about 10 parts TCE per billion parts air.

Based on the 43-ton emission figure, the department had calculated that the battery separator plant would cause an average concentration of TCE in the surrounding air of about 2 or 3 parts per million.

Thus the actual TCE concentration, as measured by the environmental department on Nov. 2 at six locations surrounding the plant, was about 200 times less than the estimate provided by a computer simulation.

Although there is no legal limit on TCE allowable in the outside air, comparison has been made to the 100 parts per million allowed for continuous exposure inside factories.

If the state's measurements are correct, the outside air concentration of TCE in southeast Corvallis from Evans is 10,000 times less than the legally allowable exposure in the air workers breathe.

Nevertheless, Friends of Benton County, according to a member, Charles "Art" Boyle, is concerned that the verdict on public health danger from the plant is not in.

"This is not an anti-Evans petition," Boyle said this morning. "This is a pro-public-health petition. We want to make sure the air these people are breathing (surrounding the plant) is safe."

According to Boyle, the Nov. 2 measurements by the environmental department were insufficient to establish the actual concentration of TCE in the air.

In its letter to Atiyeh, the citizens group pointed out that the department's computer estimates of TCE concentration were based on the 43-ton-a-year emission rate, although Evans now admits 720 tons would be emitted.

In addition to a new, more rigorous analysis of the problem by the environmental deparment, the citizens group wants a medical study of people in the Evans neighborhood who have complained of feeling poorly since the TCE emissions began in 1978.

50 Tons/mo released
90% are released as fugitive
22 lbs/day to waters 600 lbs/mo - none in water system

Permit Number: 02-2203
Expiration Date: 11/1/84
Page 1 of 4 Pages

AIR CONTAMINANT DISCHARGE PERMIT

DRAFT

Department of Environmental Quality
522 Southwest Fifth, Portland, OR 97204
Mailing Address: Box 1760, Portland, OR 97207
Telephone: (503) 229-5696

Issued in accordance with the provisions of ORS 468.310

ISSUED TO:

Evans Products Company
Box "E"
Corvallis, OR 97330

INFORMATION RELIED UPON:

Application No. 1616

Date Received: June 8, 1979

PLANT SITE:

1115 Southeast Crystal Lake Drive
Corvallis, OR 97330

ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY

WILLIAM H. YOUNG, Director — Dated

Source(s) Permitted to Discharge Air Contaminants:

Name of Air Contaminant Source	Standard Industry Code as Listed
Battery Separator Manufacturing (Submicro Process)	2599

Permitted Activities

Until such time as this permit expires or is modified or revoked, the permittee is herewith allowed to discharge exhaust gases containing air contaminants including emissions from those processes and activities directly related or associated thereto in accordance with the requirements, limitations and conditions of this permit from the air contaminant source(s) listed above.

The specific listing of requirements, limitations and conditions contained herein does not relieve the permittee from complying with all other rules and standards of the Department.

Performance Standards and Emission Limits

1. The permittee shall at all times maintain and operate all air contaminant generating processes and all contaminant control equipment at full efficiency and effectiveness, such that the emissions of air contaminants are kept at the lowest practicable levels.

2. Particulate emissions from any single air contaminant source shall not exceed any of the following:

   a. 0.1 grains per standard cubic foot.
   b. An opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour.
   c. Particulate matter which is larger than 250 microns and which may be deposited upon the real property of another person shall not be emitted.

3. Trichloroethylene emissions from the carbon bed adsorption units shall not exceed a total of 10 pounds per hour, based on a minimum acceptable removal efficiency of 95 percent.

4. The permittee shall not allow the emission of odorous matter as measured off the permittee's property in excess of:

   a. A scentometer no. 0 odor strength or equivalent dilution in residential and commercial areas.

   b. A scentometer no. 2 odor strength or equivalent dilution in all other land use areas.

   A violation of Condition a or b shall have occurred when two measurements made by the Department within a period of one hour, separated by at least 15 minutes exceed the limits.

Compliance Demonstration Schedule

5. In the event the Permittee is unable to comply with the emission limits established in Condition 3, an alternative emission control strategy and time schedule shall be submitted to the Department within 30 days of the determiniation of noncompliance.

Monitoring and Reporting

6. The permittee shall effectively inspect and monitor the operation and maintenance of the plant and associated air contaminant control facilities. A record of all such data shall be maintained for a period of three years and be available at the plant site at all times for inspection by the authorized representatives of the Department. At least the following shall be monitored and recorded at the indicated interval. The data for Conditions a, b, and c shall be submitted to the Department of no later than the 15th day of the month following the month of record.

	Parameter	Minimum Monitoring Frequency
a.	The amount of trichloroethylene used.	Monthly

b.	A description of any maintenance to the air contaminant control systems.	As performed
c.	The results of source tests required by Condition 7.	As performed
d.	Inspection of all trichloroethylene process, conveying, refining, control and storage systems for physical integrity and any incident, malfunction, leakage or operator error resulting in a potential, uncontrolled release of trichloroethylene. (Note: Unset reporting is required by Condition G5.)	Daily

7. The permittee shall conduct a minimum of three source tests per year, separated by 4 month intervals, to demonstrate compliance with Condition 3 and to verify the collection efficiency of the adsorption units. A source test shall also be conducted following any repairs or modifications to the units that could affect trichloroethylene emissions.

8. The permittee shall report to the Department by January 15 of each year this permit is in effect the following information for the preceding calendar year.

   a. Plant production on a monthly basis.

Fee Schedule

9. The Annual Compliance Determination Fee for this permit is due on October 1 of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

General Conditions and Disclaimers

G1. The permittee shall allow Department of Environmental Quality representatives access to the plant site and pertinent records at all reasonable times for the purposes of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emission discharge records and otherwise conducting all necessary functions related to this permit.

G2. The permittee is prohibited from conducting open burning except as may be allowed by OAR Chapter 340, Sections 23-025 through 23-050.

G3. The permittee shall:

   a. Notify the Department in writing using a Departmental "Notice of Construction" form, and

   b. Obtain written approval.

   before:

a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment, or

b. Modifying or altering an existing source that may significantly affect the emission of air contaminants.

G4. The permittee shall notify the Department at least 24 hours in advance of any planned shutdown of air pollution control equipment for scheduled maintenance that may cause a violation of applicable standards.

G5. The permittee shall notify the Department by telephone or in person within one (1) hour of any malfunction of air pollution control equipment or other upset condition that may cause a violation of the applicable standards. Such notice shall include the nature and quantity of the increased emissions that have occurred and the expected duration of the breakdown.

G6. The permittee shall at all times conduct dust suppression measures to meet the requirements set forth in "Fugitive Emissions" and "Nuisance Conditions" in OAR Chapter 340, Sections 21-050 through 21-060.

G7. Application for a modification of this permit must be submitted not less than 60 days prior to the source modification. A Filing Fee and an Application Processing Fee must be submitted with an application for the permit modification.

G8. Application for renewal of this permit must be submitted not less than 60 days prior to the permit expiration date. A Filing Fee and an Annual Compliance Determination Fee must be submitted with the application for the permit renewal.

G9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

G10. This permit is subject to revocation for cause as provided by law.

G11. Notice provision: Section 113(d)(1)(E) of the Federal Clean Air Act, as amended in 1977, requires that a major stationary source, as defined in that act, be notified herein that "it will be required to pay a noncompliance penalty under Section 120 (of that act) or by such later date as is set forth in the order (i.e., in this permit) in accordance with Section 120 in the event that such source fails to achieve final compliance by July 1, 1979."

- Material Balance -

Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

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

Willamette Valley Region
1095 25th S.E.
Salem, OR 97310

Victor Atiyeh
Governor

Prepared: October 22, 1979
Hearing: November 28, 1979

NOTICE OF PUBLIC HEARING

A CHANCE TO BE HEARD ABOUT

The Provisions of a Proposed Air Contaminant Discharge Permit for the Evans Products Submicroporous Battery Separator Plant.

The Department of Environmental Quality is proposing to issue an Air Contaminant Discharge Permit to Evans Products Company for their Submicroporous Battery Separator Plant located at 1115 S.E. Crystal Lake Drive in Corvallis, Oregon. The proposed permit would be effective for five years. A hearing for this matter will be held at the 1st Presbyterian Church, 114 S.W. 8th, Corvallis, at 7:00 p.m. on November 28, 1979.

WHAT IS DEQ PROPOSING?

Interested parties should request a copy of the staff report package. The major aspects of the proposed permit are:

1. An efficiency requirement of 95% on the activated carbon adsorption beds;

2. Three times per year source testing of activated carbon bed emissions for trichloroethylene; and

3. Limitations on particulate emissions from the plant.

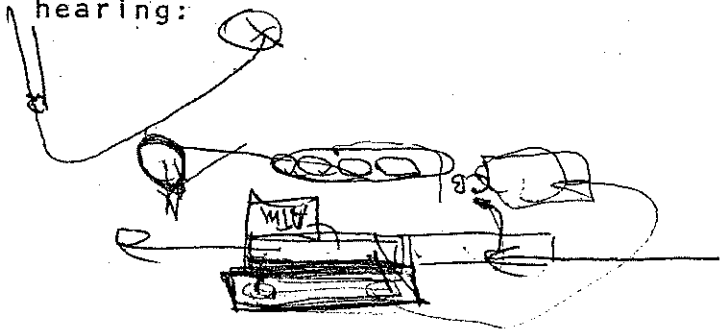
WHO IS AFFECTED BY THE PROPOSED PERMIT?

Persons living in the Corvallis area.

HOW TO PROVIDE YOUR INFORMATION

Written comments should be sent to the Department of Environmental Quality, Willamette Valley Region, 1095 25th St. S.E., Salem, Oregon 97310, and should be received by November 30, 1979.

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



Hearings planning

City	Time	Date	Location
Corvallis	7:00 p.m.	November 28, 1979	1st Presbyterian Church 114 S.W. 8th

WHERE TO OBTAIN ADDITIONAL INFORMATION

Copies of the staff report package may be obtained from:

Department of Environmental Quality
Willamette Valley Region
1095 25th St. S.E.
Salem, Oregon 97310

LEGAL REFERENCE FOR THIS PROPOSAL

This permit is proposed under the authority of ORS 468.310.

FURTHER PROCEEDINGS

After the public hearing, testimony will be evaluated and necessary changes to the proposed permit will be made. The Director will then issue an Air Contaminant Discharge Permit.

Using 90,000#/month 45 Tons/month x12 = 540 tons/yr. 1,080,000#/yr
7397 gal/month 88,524 gal/yr.

Permit 43 Tons/

10#/hr 240#/day 7200#/month 86,400# yr /43.2T/yr 8%
.82gal 19.7gal 590 gal 7082 gal.

Unaccounted for:
540 Tons used - 43.2 Tons = 496.8 Tons 92%
993,600#

9.3 gal/hr 113#/hr 81,443 gal
223 gal/day 2722#/day
6690 gal/month 82,800/month
81,443 gal/yr. 993,600# yr.

245/gallon/day 12.2# gallon
account for
-25 gallons-
90,000#/month

Department of Environmental Quality

522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207

Willamette Valley Region
1095 25th St. S.E.
Salem, OR 97310

Victor Atiyeh
Governor

TO: Director

FROM: John E. Borden

SUBJECT: Evans Products Company, Submicroporous Battery Separator Plant, Proposed Air Contaminant Discharge Permit, Staff Report.

BACKGROUND

The Department proposes to issue the attached Air Contaminant Discharge Permit to the Evans Products Company for a Submicroporous Battery Separator Plant located at 1115 S.E. Crystal Lake Drive in Corvallis. The existence of the Submicroporous Battery Separator Plant was discovered by the Department in April of 1979. It had been constructed without receiving prior construction approval and without the Company first obtaining an Air Contaminant Discharge Permit. For violations of state statutes and administrative rules, Evans Products Company was issued a Notice of Violation and Intent to Assess Civil Penalty by the Department on May 23, 1979.

Subsequent to the Department's enforcement action, Evans Products Company submitted a Notice of Construction and an application for an Air Contaminant Discharge Permit. A review of the Company's engineering plans for the plant showed two sources of potential air contaminant emissions:

1. Polyethylene and silica powder handling practices.

2. Trichloroethylene vapor from the submicroporous battery separator process lines.

An evaluation of the pollution control equipment in place for dust control at the submicroporous battery separator plant showed adequate control devices to be in place (baghouses). The Department had had no prior exposure to industrial scale control of

trichloroethylene (TCE) vapor emissions. A review of current literature on the compound was conducted. The following section is a brief and non-technical explanation of the results of that review. (Most of the Biological Effects review is from a 1978 NIOSH paper by Norbert Page and Jack Arthur.)

Trichloroethylene (TCE) is, in pure form, a colorless liquid which evaporates readily at room temperature. Vapors of TCE have a sweet odor like similar compounds such as chloroform, carbon tetrachloride, methylene chloride and perchloroethylene. TCE belongs to a class of chemical compounds known as volatile (evaporates at room temperature) organic compounds. TCE is very important to the industrialized world.

Since World War II, trichloroethylene has been produced in vast quantities by major chemical manufacturers worldwide. TCE's major uses are in the metal degreasing and drycleaning industries. A few other uses are in extraction processes, as chemical feedstock, as solvent in paint products, and as an anaesthetic. Many more uses exist incidentally, such as in the production of freeze dried coffee. As in the case of many volatile organic compounds, TCE is toxic and can affect the health of animals (and plants) exposed to it. Since the 1940's, many scientific papers dealing with the biological effects of TCE exposure have been published. Biological effects on workers exposed to TCE have been the motivation for most of the papers.

Researchers have used many animal experiments to investigate the biological effects of TCE exposure. Human experiments have been performed too. Some research has revolved around acute (short term high level--e.g., 10 min. 1000+ ppm) exposure to TCE vapor. Such research has established the acute toxic properties of TCE: visual disturbances, confusion, fatigue, narcosis, anaesthesia (leading to death at extremely high concentrations). Other researchers have concentrated their efforts on the effects of chronic exposure to high and low levels of TCE vapors. Such research led (in 1975) to the establishment of the current OSHA standards for worker exposure (as enforced by the Oregon Accident Prevention Division) of a 100 parts per million average TCE concentration and 300 ppm maximum concentration.

In the 1970's, concern over the carcinogenic potential of commonly used chemicals stimulated new research.

With the discovery of the carcinogenic nature of vinyl chloride (VC), researchers turned their attention to other short chain organochlorine compounds. In March, 1975, the National Cancer Institute (NCI) reported preliminary results of a study which found no carcinogenic effects in rats, but which found the induction of a significant number of liver cell cancers in both male and female mice ($B6C3F_1$ strain). In 1976, the NCI confirmed those results and described them in great detail. The study was conducted over a 2-year period and involved administering TCE to the mice by gavage (pouring liquid down a tube inserted into the stomach) at dose rates varying between 869 and 2339 mg/Kg body weight/day [in humans that would equate to a 150 lb. person drinking roughly 1-2 shot glasses of pure TCE per day]. NCI additionally found similar and more pronounced tumor formation with carbon tetrachloride, chloroform, and tetrachloroethylene.

NCI's TCE study conforms, according to the U.S. Public Health Service National Institute for Occupational Safety and Health (NIOSH), with the National Cancer Advisory Board 1977 criteria for carcinogenicity. In NIOSH's opinion, the high dose rates, gavage route of exposure and low level contamination of air, food and water with other chemicals did not negate the validity of the test results.

The Manufacturing Chemists Association (MCA) is currently conducting a long term inhalation study on the $B6C3F_1$ strain of mouse. According to a 1978 NIOSH report, similar results to the NCI study have been preliminarily found.

ASSESSMENT OF CARCINOGENIC POTENTIAL OF TCE TO HUMANS

NIOSH researchers Norbert Page and Jack Arthur stated that as of January 1978 no evidence had been found to associate TCE with carcinogenicity in humans. They feel it would be difficult to detect a relationship in the American working population because of worker mobility and poor medical recordkeeeping. Their paper did cite a 1977 study from Sweden (where a stable work force and better medical records exist) of 518 men exposed to TCE since before 1970. The Swedish authors (Axelson, et al) state that their study could not be used to rule out the risk

of cancer induction by TCE. However, they state that the lack of an observed effect makes it probable that TCE is not a very serious cancer hazard at low levels. The Swedish Occupational Exposure Standard level is 30 ppm.

Page and Arthur did recommend lowering the OSHA limit for TCE from 100 ppm to 25 parts per million. That recommendation has not been acted upon yet.

The Department's charge to Evans was to provide "highest and best practicable" removal of TCE vapors. The Company's process lines control TCE vapor emissions by two methods. First is a chilled condensor system to remove the majority of the TCE from the waste air stream. The condensor system is followed by adsorption on activated carbon as the last pollution control step.

The Evans Products Company's plans stated that the carbon adsorption beds were designed to provide 95% TCE removal efficiency (95% of what enters the beds). The Department required 3 source tests to be done on the carbon adsorption system with efficiency boosting changes between the tests. The final average efficiency of the carbon adsorption beds was found to be 95+%.

The Department's best engineering judgment is that the 95% removal level through carbon adsorption "highest and best practicable" treatment. To find out what levels of TCE might be found in the area surrounding the Evans plant, a computer model of emissions from the carbon adsorption beds was made. The model showed a 24-hour average of 15 parts per billion of TCE at a distance of 120 meters from the plant decaying to 2 parts per billion at a distance of 480 meters.

The exhaust stacks of the carbon adsorption beds are only about 3 meters tall, while surrounding buildings are taller. Meteorological conditions could develop such that a TCE level as high as 18 parts per million (1000+ time the average) could exist for short durations (3-10 minutes). Such a condition is called plume downwash and could be alleviated by the Company providing a taller exhaust stack. A taller stack would have the added benefit of reducing the 24-hour average levels as well. The Company has been requested to provide the taller stack to eliminate the possibility of plume downwash.

It is the Department's judgment that the health of the citizens living near the Submicro plant will be protected by the proposed permit.

Evaluation

The proposed Air Contaminant Discharge Permit contains the following important provisions:

Condition

1. All pollution control equipment and air contaminant generating processes should be maintained at full efficiency.

2. Particulate emissions are limited to: 0.1 grain/standard cubic foot; less than 20% opacity; no particle with a diameter larger than 250 microns shall be deposited on the real property of another person.

3. TCE emissions from the carbon beds are limited to 10 lbs/hour with a minimum carbon bed efficiency of 95% TCE removal (whichever is more restrictive).

4. Odor from the Submicroporous battery separator manufacturing process is limited to a scentometer Number 0 strength in residential and commercial areas.

5. Monitoring of the process through TCE consumption, pollution control device maintenance, source test results and daily inspections will be performed and results submitted to the Department monthly.

6. Three source tests per year will be performed on the carbon beds. Additional source tests will be conducted following any repairs or modifications to the beds.

Attachment: Proposed Air Contaminant Discharge Permit for Evans Products Company Submicroporous Battery Separator Plant.

Ted Groszkiewicz:wr
378-8240
October 15, 1979

450 460
2
250,000
500
125,000,000 00

10,000 # month / 8200 gall

5000 #
240 #
4760 #

400 gal

462
1000,000,000

5 days

400 gallon
300 gallon / to meet osh standard - 100ppm.
1ppm

3.78 liter/gal

density of TCE
1.46 gm/cc

300 × 3.78 = 1134 litter of TCE

1.46 g/cc × 1134 × 1000 cc/l = 1,660,000 gm
2,700,920 gm/131

1.66 × 10^6 gm.

molecular WT
131.39/22.4 litter

22.4 / 131.39 × 1.66 × 10^6 = 2.83 × 10^5 litter
3.77 × 10^5 litter

3.77×10^5 / 28.3 = 1334 cuft ft
2.83 × 10^5 l × .0353 cuft/litter = ~~9.99~~ 10^4 cu ft.
1334 cu ft

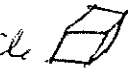
10^4 cu ft TCE full day - 300 gallon

10^4 / 1,000,000

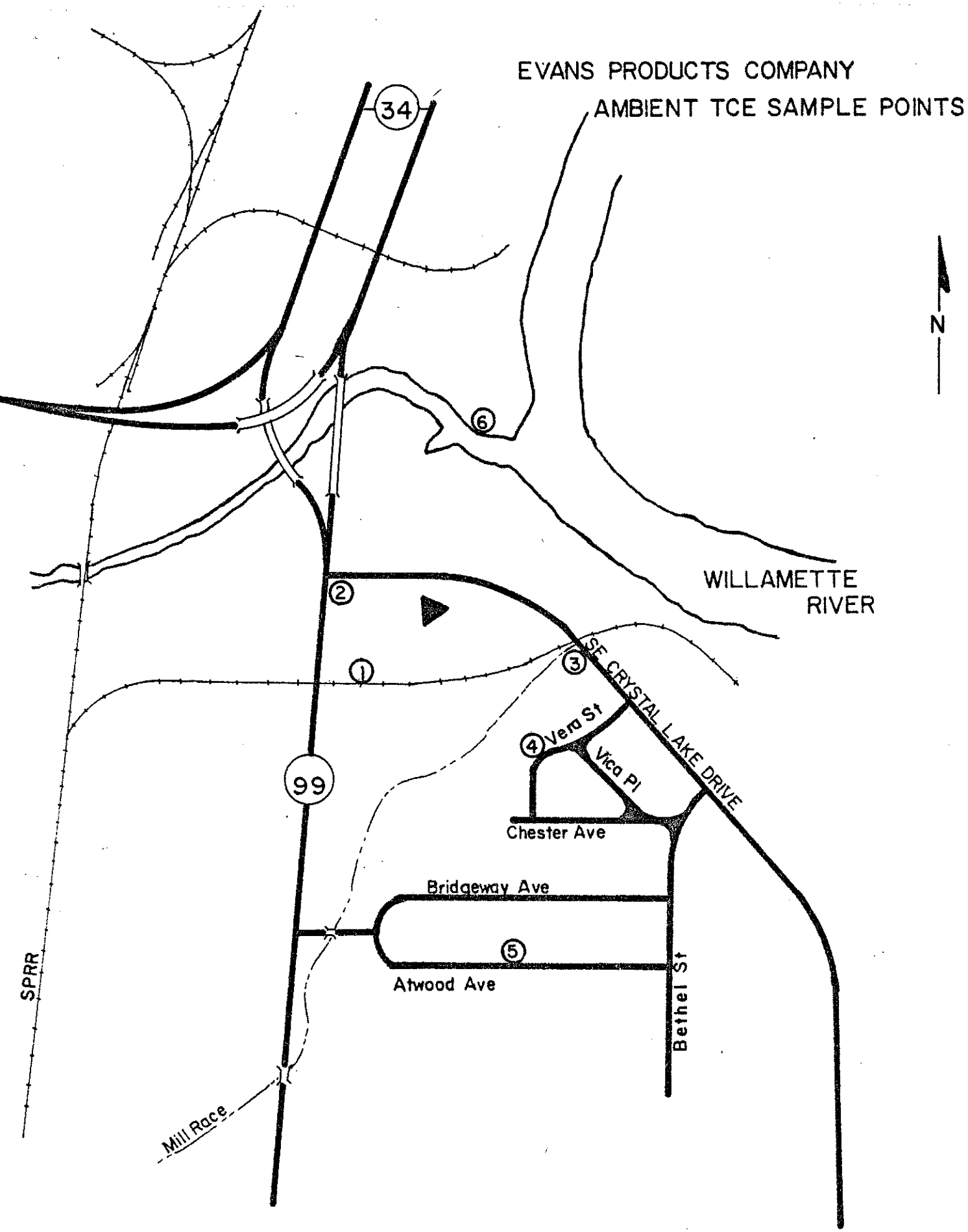
100%
10^4/24 × 1h/60 = 6.94 cuft/min TCE

6.94 cuft/min × 10^4 6,9400 cu ft./min

12,200
building 40 × 60 × 30 = 48,000 cu ft.

Days alone:
69,400 cu ft/min × 60 × 24 = 99,936,000 cuft = Cube 9997'
1.89 mile 

1ppm cube 31,620' 5.98 miles


EVANS PRODUCTS COMPANY
AMBIENT TCE SAMPLE POINTS
34
N
6
WILLAMETTE
RIVER
2
1
3
SE CRYSTAL LAKE DRIVE
4
Vera St
Vica Pl
99
Chester Ave
Bridgeway Ave
5
Atwood Ave
Bethel St
SPRR
Mill Race

SEMRTS FIELD SITE
BOTANY & PLANT PATHOLOGY FARM, OSU

MET DATA (10m)
2 Nov 79

(AVERAGE VALUES)

TIME (PST)	WIND SPEED (m/s)	WIND DIR (deg)
00:00 - 01:00	.4	319
01:00 - 02:00	.2	223
02:00 - 03:00	.3	210
03:00 - 04:00	.6	275
04:00 - 05:00	.3	250
05:00 - 06:00	.6	4.1
06:00 - 07:00	.6	3.9
07:00 - 08:00	.7	341
08:00 - 09:00	.3	255
09:00 - 10:00	1.0	164
10:00 - 11:00	1.0	181
11:00 - 12:00	1.4	193
12:00 - 13:00	2.1	181
13:00 - 14:00	1.3	210
14:00 - 15:00	1.0	203
15:00 - 16:00	.8	209
16:00 - 17:00	2.7	194
17:00 - 18:00	1.5	223
18:00 - 19:00	1.3	235
19:00 - 20:00	.7	190
20:00 - 21:00	1.5	220
21:00 - 22:00	1.0	208
22:00 - 23:00	(DATA NOT AVAILABLE)	

SEMRTS FIELD SITE
BOTANY & PLANT PATHOLOGY FARM, OSU

MET DATA (10m)
1 NOV 79

(AVERAGE VALUES)

TIME (PST)	WIND SPEED (m/s)	WIND DIR (deg)
00:00 - 01:00	.5	34
01:00 - 02:00	.1	273
02:00 - 03:00	.3	60
03:00 - 04:00	.7	245
04:00 - 05:00	.3	201
05:00 - 06:00	.5	279
06:00 - 07:00	.6	271
07:00 - 08:00	.8	231
08:00 - 09:00	.8	214
09:00 - 10:00	.5	323
10:00 - 11:00	.6	248
11:00 - 12:00	1.0	208
12:00 - 13:00	.8	280
13:00 - 14:00	.9	35
14:00 - 15:00	.8	344
15:00 - 16:00	.4	204
16:00 - 17:00	.6	100
17:00 - 18:00	.5	126
18:00 - 19:00	.7	207
19:00 - 20:00	.4	162
20:00 - 21:00	.2	241
21:00 - 22:00	.2	289
22:00 - 23:00	.1	280

SEMRTS FIELD SITE
BOTANY & PLANT PATHOLOGY FARM, OSU

MET DATA (10m)
31 Oct 79

(AVERAGE VALUES)

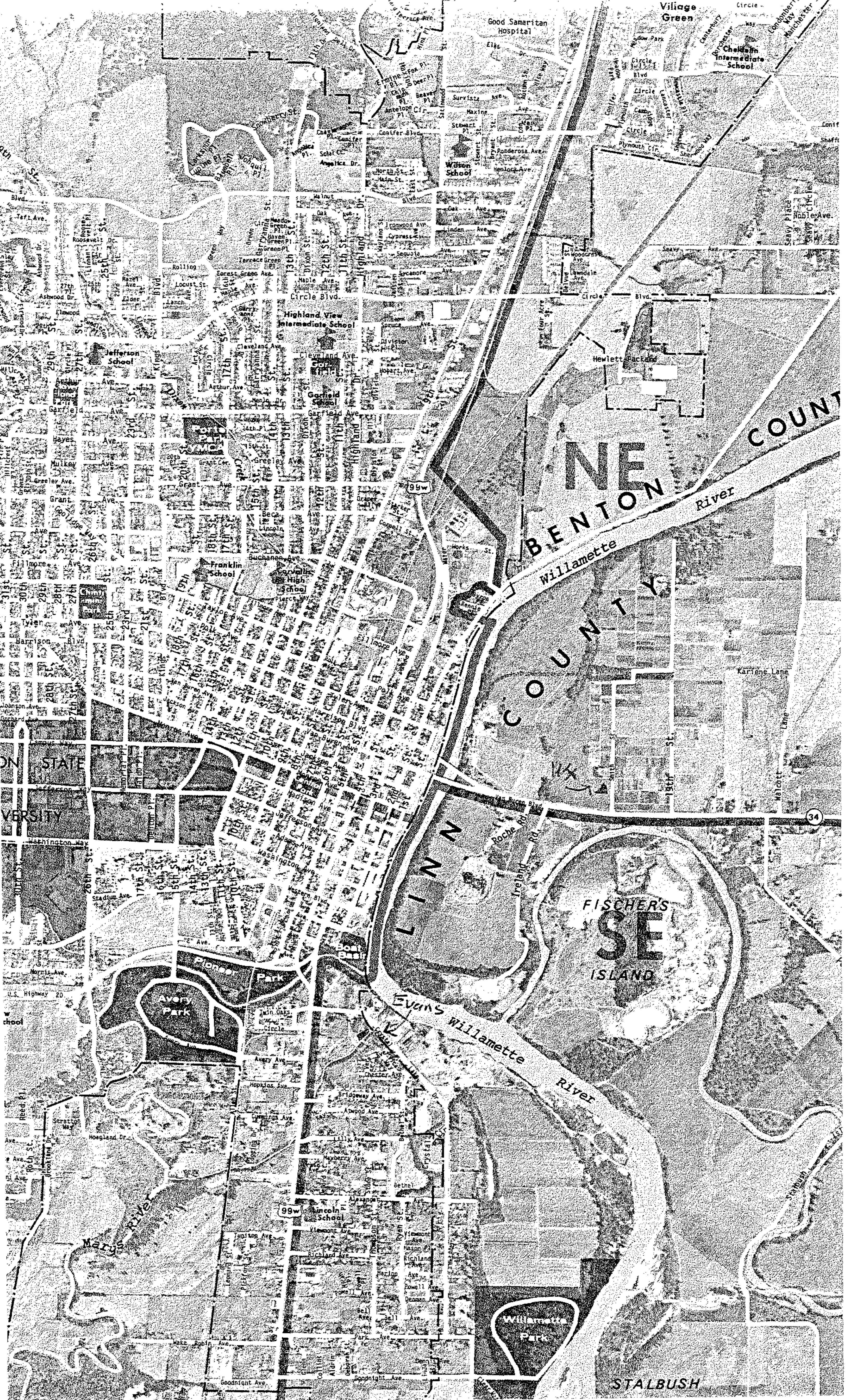
TIME (PST)	WIND SPEED (m/s)	WIND DIR (deg)
00:00 - 01:00	4.3	13
01:00 - 02:00	3.7	14
02:00 - 03:00	3.6	6
03:00 - 04:00	2.5	15
04:00 - 05:00	2.2	24
05:00 - 06:00	2.2	19
06:00 - 07:00	2.4	23
07:00 - 08:00	2.1	353
08:00 - 09:00	1.8	348
09:00 - 10:00	3.5	30
10:00 - 11:00	3.9	28
11:00 - 12:00	3.5	25
12:00 - 13:00	3.5	34
13:00 - 14:00	3.0	39
14:00 - 15:00	2.7	40
15:00 - 16:00	2.2	23
16:00 - 17:00	(DATA NOT	AVAILABLE)
17:00 - 18:00	"	
18:00 - 19:00	"	
19:00 - 20:00	"	
20:00 - 21:00	"	
21:00 - 22:00	"	
22:00 - 23:00	.3	255

SEMRTS FIELD SITE
BOTANY & PLANT PATHOLOGY FARM, OSU

MET DATA (10m)
30 Oct 79

(AVERAGE VALUES)

TIME (PST)	WIND SPEED (m/s)	WIND DIR (deg)
00:00 - 01:00	.7	175
01:00 - 02:00	.8	175
02:00 - 03:00	1.8	150
03:00 - 04:00	1.4	173
04:00 - 05:00	1.5	190
05:00 - 06:00	2.7	187
06:00 - 07:00	2.9	169
07:00 - 08:00	3.6	181
08:00 - 09:00	3.0	183
09:00 - 10:00	3.9	175
10:00 - 11:00	5.0	177
11:00 - 12:00	5.1	178
12:00 - 13:00	4.6	177
13:00 - 14:00	4.4	169
14:00 - 15:00	4.4	169
15:00 - 16:00	4.0	178
16:00 - 17:00	3.8	167
17:00 - 18:00	2.9	159
18:00 - 19:00	2.9	160
19:00 - 20:00	2.4	156
20:00 - 21:00	(DATA NOT	AVAILABLE)
21:00 - 22:00	1.3	113
22:00 - 23:00	3.7	290



Good Samaritan Hospital
Village Green
Cheldelin Intermediate School
Wilson School
Highland View Intermediate School
Jefferson School
Garfield School
Franklin School
Corvallis High School
Hewlett Packard
NE
BENTON COUNTY
Willamette River
LINN COUNTY
Kariene Lane
Walcott Lane
Van Buren Blvd
34
99W
Roche Rd
Ireland Rd
FISCHER'S ISLAND
SE
Pioneer Park
Avery Park
Boat Basin
Evans
Willamette River
Marys River
Lincoln School
Willamette Park
STALBUSH
STATE
VERSITY
Circle Blvd.
Walnut Blvd
Harrison Blvd
Monroe Ave.
Jefferson Way
Washington Way
Campus Way
Western Blvd
Stadium Ave.
U.S. Highway 20
Goodnight Ave.
Kiger
Avery Ave.
Hoagland Dr.

From
the
Desk
of:

INGE McNEESE
Councilor
757-1588

de to submit for the record
the agreement between
Corvallis, Benton County
ns & Evans Products Co.

:

s of existing standards
e & particles)

t level of operation for
ss pollution control system.

ent substantiates the
ution that local efforts
more effective than DEQ's
local environmental quality.

A ~ 1 1.

Rec'd 12/14/79

AGREEMENT

This agreement is made on May 9, 1979, between the City of Corvallis, a municipal corporation (hereinafter called "the City") and Evans Products Company (hereinafter called "Evans").

It is agreed by the parties as follows:

1. Noise Control. In order to reduce and control noise from its Crystal Lake Drive manufacturing operations ("the Corvallis Complex") Evans agrees:

a. To install a silencer on the burner fan located on top of its battery separator plant on or before May 11, 1979.

b. Within five (5) days after such installation, to have noise from its Corvallis Complex measured by an independent technician to be agreed upon by the parties.

c. If noise levels at the Corvallis Complex do not comply with the Department of Environmental Quality (DEQ) standards set forth in OAR Ch. 340, Division 35, Noise Control Regulations, amended February, 1979, (hereinafter called "DEQ regulations"), after the installation of the said silencer, to continue its best efforts to identify sources of noise within its plants and to take all necessary action to reduce noise levels from those sources.

d. In any event to reduce noise levels to the extent necessary to comply with DEQ regulations as applicable to the Corvallis Complex on or before December 31, 1979.

e. Within 30 days after the commencement of operation at its Crystal Lake Drive fiberglass plant to have the noise from the Corvallis Complex including the fiberglass plant measured by an independent technician to be agreed upon by the parties.

f. If such noise levels exceed the DEQ regulations, to take all necessary action to reduce the noise to a level that complies with DEQ regulations and, in any event, to comply with DEQ regulations within six months after commencement of normal fiberglass plant operations.

2. Control and Reduction of Sawdust. In order to reduce and control fugitive sawdust from chip piles used in Evans hardboard manufacturing operation, Evans agrees:

a. On or before June 15, 1979 to install a frame and canvas covering device over the chip truck unloading dump designed for the reduction and control of sawdust during unloading operations.

b. On or before June 30, 1979 to install necessary water connections and, when necessary, to use spraying devices when moving chips in the uncovered yard area.

c. To reduce the number of uncovered, free-standing chip piles and to reduce the volume of chips contained in such piles to the minimum quantity consistent with continuous and efficient operation of the hardboard plant in the Corvallis Complex, specifically limited to one free-standing chip pile except under emergency circumstances, including, but not limited to, anticipated interruption of chip supply, force majeure, acts of God or other reasons beyond Evans' control.

3. Discharge of Cooling Water from Submicro Plant. In order to eliminate discharge of cooling water from the Submicro plant in the Corvallis Complex, Evans agrees:

a. On or before August 15, 1979, to install a cooling tower at the Submicro plant, place such cooling tower in operation and cease discharging any cooling water from the plant.

b. To continue to operate the cooling tower and shutting off the discharge of cooling water from the Submicro plant except in cases of emergency including, but not limited to breakdown of equipment, force majeure, acts of God or other causes beyond Evans' control.

4. Millrace. In order to assist in resolving problems relating to the millrace in the Corvallis Complex, the City and Evans agree to collaborate in an engineering study of problems associated with the millrace and of possible resolution of such problems.

5. Submicro Battery Separator Plant Emissions. In order to control solvent emissions from its Submicro battery separator plant ("Submicro plant"), Evans agrees:

a. Evans has filed an application for a DEQ permit for its Submicro plant and Evans will expeditiously pursue such permit application and will abide by all the terms and conditions of any permit issued by DEQ with respect to such application.

b. Evans will abide by all applicable federal and Oregon statutes and regulations affecting air emissions from the Submicro plant including those rules, regulations and limits imposed by DEQ.

6. Fiberglass Plant Emissions. In order to insure minimum particulate emissions from its new fiberglass plant in the Corvallis Complex ("fiberglass plant") Evans agrees:

a. Evans has ordered and will install three high efficiency Venturi scrubbers with cyclone separators manufactured by American Air Filter Co., Inc. of Louisville, KY. That equipment is as follows:

One set "Type V Kinpactor" with reinforced flooded elbow size 18 and reinforced Separator size 150 with cone damper

to operate at a water column pressure drop of from 8 to 25 inches.

One set "Type V Kinpactor" with reinforced flooded elbow size 16 and reinforced Separator size 115 with cone damper to operate at a water column pressure drop of from 8 to 25 inches.

One set "Type V Kinpactor" with flooded elbow size 22 and Separator size 230 with cone damper to operate at a water column pressure drop of from 8 to 12 inches.

b. The characteristics and performance of the above referred to equipment are described at pages 6, 7 and 9 of the attached catalog.

c. To maintain such equipment in efficient operating condition.

d. To operate such equipment in a manner consistent with the manufacturer's recommendations for maximum fiber removal.

e. To install, operate and maintain baghouse filter devices in the air conveying system for unloading and conveying sand.

f. To construct its scrubber stack to a height of 45 feet unless the City of Corvallis agrees for aesthetic reasons or otherwise that the stack may be lower.

g. Evans agrees to the installation and continuous operation of a chart recorder or device designed to continuously monitor the pressure drop level for each of the above-described scrubbers and to maintain a record of the results.

7. Truck Traffic. In order to minimize truck traffic on Crystal Lake Drive, Evans agrees:

a. To import raw material for its fiberglass plant by rail to the greatest extent possible and economically feasible.

b. To schedule truck deliveries of raw materials to the fiberglass plant and finished product shipments from the battery separator plant between the hours of 8:00 a.m. and 5:00 p.m. and that to the greatest extent practicable, it will not schedule such shipments or deliveries during any other hours except in cases of emergency or other events beyond the control of Evans Products Company.

8. Ongoing Review of Community Problems. In order to provide an ongoing review of problems arising out of the operation of the Corvallis Complex, Evans agrees:

a. To form a committee including representatives of Evans and its neighbors which will meet as necessary, the chairmanship of such committee to be rotated between representatives of Evans and its neighbors, with formal minutes to be kept of the proceedings of the committee.

b. To review all suggestions and complaints brought before the committee, to study and evaluate the same and to propose resolutions therefore.

c. To review compliance and operation of programs agreed upon by the committee.

d. The suggestions to be considered by the committee shall include but not be limited to control of noise, dust, air emissions, drainage, street and sidewalk improvements, landscaping and beautification.

e. On or before June 30, 1979 Evans will present a plan for the landscaping and beautification of the Corvallis Complex and Crystal Lake Drive for the committee's consideration.

9. Lewisburg Plant. For the purpose of eliminating possible fiberglass emissions at Lewisburg, Evans agrees that it will discontinue the manufacturing of fiberglass at its Lewisburg plant when the present Lewisburg furnace becomes inoperable and, in any event, within two years from the date of this agreement.

10. Proceedings in the Matter of Evans Application for a Building Permit for its Fiberglass Plant.

a. In consideration of the undertakings of Evans hereinabove set forth, the City agrees that it will not file and prosecute an appeal from the determination of the Benton County Planning Commission on April 24, 1979, denying the City's appeal from the issuance to Evans of a building permit dated June 26, 1978 for the construction of its fiberglass plant.

or other necessary permits

b. This agreement shall be effective and binding upon the parties only if Benton County has issued a mechanical permit and all other necessary permits to Evans for its fiberglass plant on or before May 15, 1979.

11. Enforcement.

a. For the enforcement of the terms and conditions of this agreement the parties are entitled to appropriate remedies at law or in equity. The parties recognize that specific performance and injunction are appropriate remedies for specific undertakings of Evans contained herein.

b. In the event of any claim of a violation by Evans of any of its undertakings hereunder, the City shall give

Evans notice reasonable under the circumstances of the claimed violation and Evans shall have time, reasonable under the circumstances to discuss the matter with the City and submit its position with respect to the claimed violation.

c. This agreement is intended to be and shall be enforceable only by the parties hereto, specifically intending that only parties bound by this agreement are entitled to the enforcement thereof.

IN WITNESS WHEREOF, the parties have executed this agreement the day and year first herewithin written.

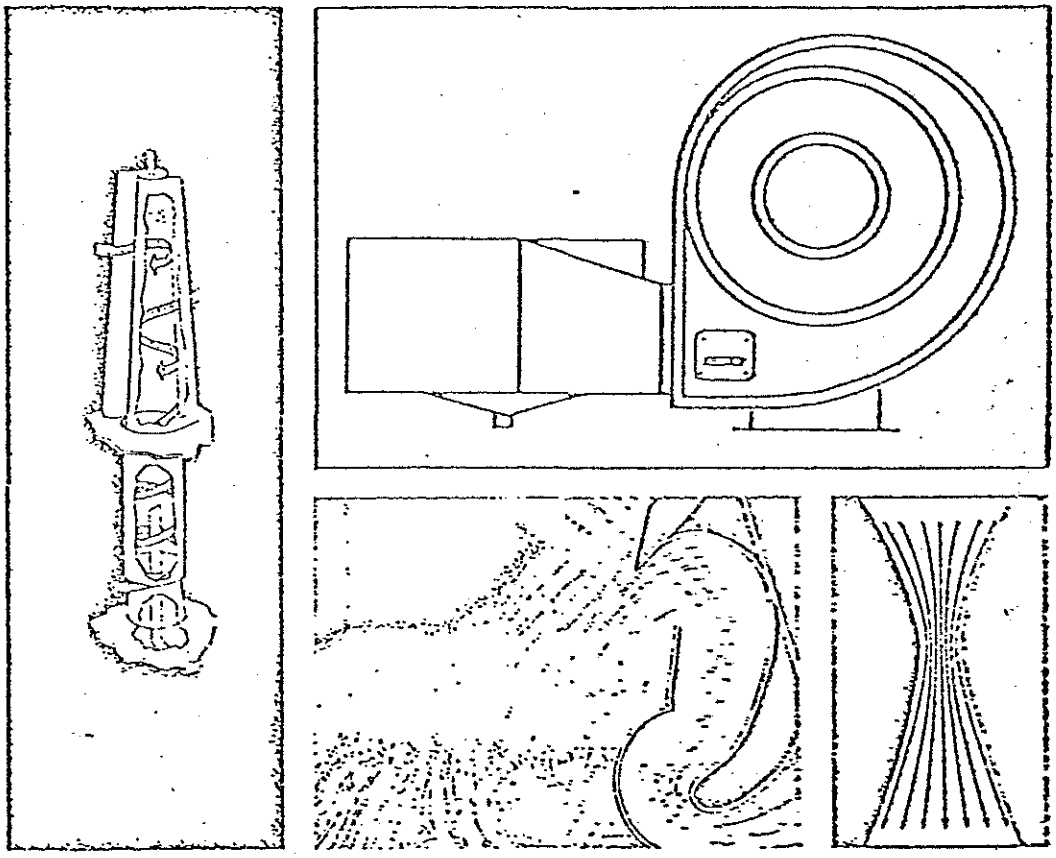
CITY OF CORVALLIS

By _____
Gary F. Pokorny
City Manager

EVANS PRODUCTS COMPANY

By _____
Piotr Zenczak
Vice President

REPRESENTED BY
BENZ AIR ENGR. CO., INC.
3822 S.W. CORBETT ST.
PORTLAND, OREGON 97201
228-7296



ATTACHMENT

the world's most extensive and versatile family of wet dust, vapor, mist, and fume collectors

American Air Filter, a pioneer in the design and development of wet dust collectors, offers the largest and most flexible line of wet dust and fume collection equipment available today. From small nuisance dust problems to large process gas cleaning applications, AAF has the right collector for the job — whether the contaminant is dust, fume, mist, or vapor.

AAF wet collectors have earned a reputation for quality, durability, and dependability. Equally important is the technical "know-how" of AAF engineers. This ability — gained from over 15,000 wet dust collector installations — is not limited to the selection of proper equipment type; it embraces the entire field of dust control — the entrapment of dust at its source, transportation to the collector, removal of contaminant from the air stream, and disposal of collected material.

About wet collectors

Wet dust collectors provide a comparatively simple, low-cost solution to many dust control and air pollution problems. Space requirements are generally less than for other collector types. Because equipment size is small in relation to air cleaning capacity, most collectors can be shipped from the manufacturer completely assembled or in major sub-assemblies, simplifying installation and reducing erection costs.

Wet collectors are capable of cleaning hot, moist gases which are difficult or even impossible to handle with other collector types. Since solids are collected in a wetted form, secondary dust problems during material disposal are avoided. In addition, wet collectors are often able to eliminate or substantially reduce the hazards associated with the collection of explosive or highly flammable materials.

Wet collectors are commercially available in a wide variety of designs, shapes, and sizes. The collection principles employed are centrifugal force, impaction, and impingement, either separately or in combination.

Independent investigators studying wet collector performance have developed the Contact Power Theory, which states that for well-designed equipment, collection efficiency is a function of the energy consumed in the air to water contact process, and is independent of the collector design. On this basis, well-designed collectors operating at or near the same pressure drop can be expected to exhibit comparable performance.

All wet collectors have a fractional efficiency characteristic; that is, their cleaning efficiency varies directly with the size of the particle being collected. In general, collectors operating at a very low pressure loss will remove only medium to coarse-size particles. High efficiency collection of fine particles requires increased energy input, which will be reflected in higher collector pressure loss.

High-efficiency wet collection of sub-micron particulate, fume, and smoke has been made possible largely by the development of the high-energy venturi type collector. Venturi designs are now used on a large number of applications formerly limited to fabric or electrostatic collectors. In accordance with the Contact Power Theory, venturi type collectors require substantial energy input to achieve high collection efficiency on submicron particles.

Collector water requirements represent a continuing operating cost which must be evaluated when selecting specific equipment. When required water rates are high, substantial savings can usually be realized by using a recirculating water system. Such systems usually employ a settling tank or pond to separate the collected material by gravity. Since the water returned to the collector will invariably contain some solids, it is advantageous to choose a collector which does not require spray nozzles or other small water orifices.

Corrosive substances are often present in typical wet collector applications. Modern construction materials are capable of providing satisfactory protection against nearly all corrosive agents, but the chemical compounds present must be correctly anticipated and identified in order to make the proper material selection.

AAF engineers have the experience necessary to insure a satisfactory and successful wet collector installation. AAF can provide technical assistance in equipment selection, choosing proper materials of construction, design of recirculating water systems, or any other aspect of wet collector dust control.

For medium concentrations of fine particles

TYPE W ROTO-CLONE

dynamic precipitator

The Type W Roto-Clone combines the scrubbing effect of water with the basic principle of dynamic precipitation — the result is a highly efficient, low-cost dust collector and air mover in one complete, shop-assembled package.

The Type W is used to collect light to medium concentrations of granular dusts, oil mists, and certain fumes. Because of its compact size and low water requirement, the Type W is often the equipment of choice when space is severely limited or water consumption must be kept to a minimum.

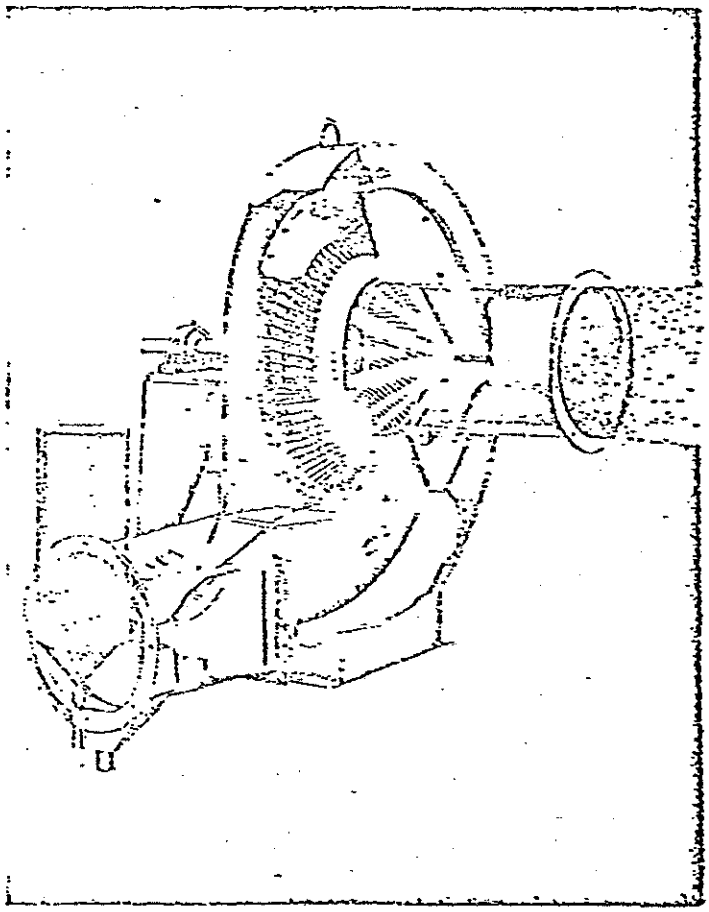
The Roto-Clone is designed to operate continuously at peak efficiency without interruption for reconditioning or servicing of any kind. It is ideally suited for processes requiring continuous ventilation and constant exhaust volume.

The Type W Roto-Clone is manufactured in twelve sizes with capacities ranging from 1,000 to 50,000 CFM. Water consumption is limited to the small amount required to maintain a flowing film on all collecting surfaces — normally ½ to 1 gpm per 1,000 CFM of air cleaned. The collected material is discharged in the form of a slurry. Since the Roto-Clone serves as both collector and air mover, it has no pressure drop as such. The energy input required to effect collection is reflected in a moderately lower blower efficiency.

Type W Roto-Clones can be fabricated of many materials, including stainless steels, monel, and aluminum. Corrosion resistant internal coatings are also available.

ADVANTAGES

- Compact — Basically no larger than a centrifugal exhauster, and as simple to install.
- Low Water Consumption — ½ to 1 gallon per 1,000 CFM of air cleaned on most applications.
- Versatile — Operating flexibility and compact size permit easy relocation to keep pace with changes in process or plant layout.
- Economical — Factory assembly reduces installation costs, low water requirement cuts operating cost.



TYPICAL APPLICATIONS

Banbury mixers
Ceramics
Chemical processing — not sticky
Coal processing
Commercial incinerators (Paper OK; saw dust not OK)
Food products — not sticky
Foundry shakeout
Grain dryers
Kitchen range hood exhaust (recommend centrifugal outlet)
Leather buffing and sanding
Metal mining except lead
Offset spray
Paper dust
Pharmaceuticals
Plastics
Rock products
Rubber grinding and buffing
Sugar granulators
Wood sanding

TYPICAL APPLICATIONS NOT RECOMMENDED

Wood boilers
Sticky dusts
Any contaminant in 700°F plus gas stream (use quencher)

For heavy loadings of all particle size

[illegible]

hydrostatic precipitator

The Type N Roto-Clone is a heavy-duty orifice type collector which has established an enviable reputation for rugged dependability.

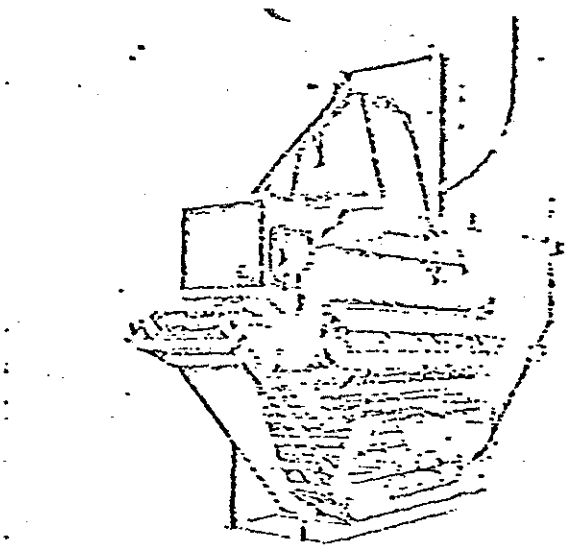
The heart of the Type N is its unique stationary impeller, where air is cleaned by the combined action of centrifugal force and thorough intermixing of air and water. Cleaning action is induced by air flow, which creates a heavy, turbulent sheet of water that traps even very fine particles. Although the required supply water rate is very low, the quantity of water in motion is quite high - approximately 20 gallons per 1,000 CFM, all of which is continuously recirculated. Simplicity of both design and operation enable the Type N to handle the toughest dust control applications.

The Type N Roto-Clone is available in three basic hopper arrangements:

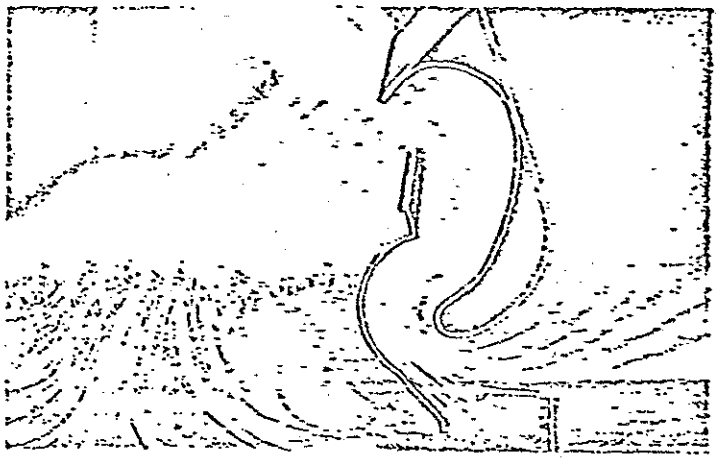
Arrangement B is a flat bottom design for manual removal of collected material. It is often used for the exhaust of buffing, polishing, and metalworking operations; fumes and vapors, and packaging, sorting, and weighing of chemicals and food products. It is frequently used to reclaim small to moderate quantities of valuable materials. Arrangement B is offered in eleven sizes for exhaust volumes of 750 to 32,000 CFM.

Arrangement C incorporates a drag-type sludge ejector for automatic removal of collected material. It is commonly used for abrasive cleaning and tumbling mill dust control, foundry sand systems, and for many dryer, cooler, kiln, and materials handling operations in the chemical, mining, and rock products industries. Arrangement C is available in fifteen sizes with capacity ratings ranging from 750 to 48,000 CFM.

Arrangement D utilizes a pyramidal hopper for continuous sluicing of collected material to a disposal point or back to process. Arrangement D is applied to kilns, dryers, and coolers in the chemical and rock products industries; to materials that can be periodically sluiced to process or to a disposal point; and to crushers, screens, and transfer points in the mining industry. Arrangement D can be furnished in eleven sizes for exhaust volumes of 750 to 32,000 CFM.



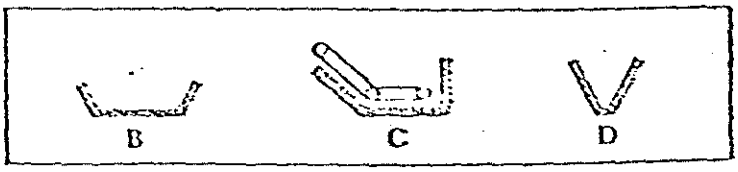
Type N Roto-Clone, Arrangement C



Collector pressure drop is variable between 6" w.g. and 12" w.g. Extra-heavy ¼" plate construction is available in sizes above 8,000 CFM capacity for arrangements C and D. Corrosion resistant interior construction, such as stainless steel or rubber coating, is available for all sizes and arrangements.

ADVANTAGES

- **Engineered Simplicity** — Cleaning action is induced by the air flow, and water is continuously reused. No pumps, nozzles, or internal moving parts are required.
- **High Efficiency** — Cleaning action is so thorough that even very fine particles are removed from the air stream.
- **Low Water Consumption** — Requires water only slightly in excess of evaporative losses or sluicing requirements — Arr. B and C seldom require over 1 gallon per minute, excluding evaporative loss.
- **Compensating Water Level Control** — Exclusive AAF water level control maintains constant collector performance regardless of fluctuations in air volume.
- **Low Maintenance** — Designed for continuous operation with minimum service, fabricated of heavy gauge steel for long life.



For low cost cleaning of large exhaust volumes

TYPE R ROTO-CLONE

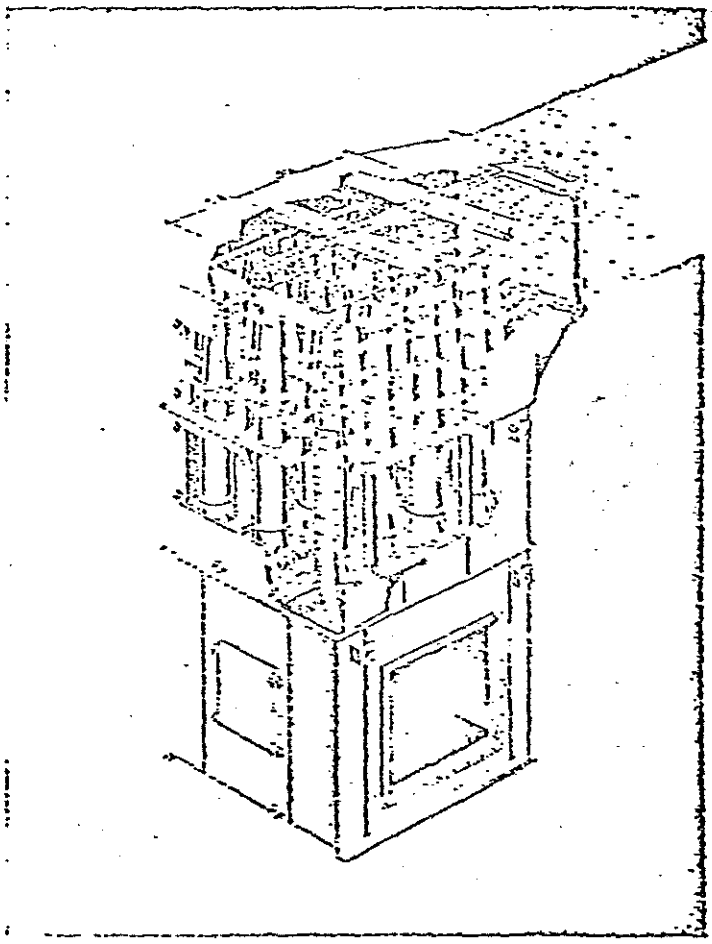
wet centrifugal dust collector

The Type R Roto-Clone utilizes a number of specially designed, double-inlet tubes to separate and trap dust particles by centrifugal force and impingement. Water introduced to each tube is carried to the periphery by high velocity dust-laden air entering the two tangential tube inlets. Centrifugal force causes dust particles to impinge against the wetted peripheral surfaces. Water and collected solids are separated from the air stream by the tube, eliminating the need for entrainment chevrons or baffles.

The Type R is used for light to heavy loadings of all size granular dusts. It is very popular for such applications as metal mining, coal handling, chemical processing, fertilizer manufacture, and foundry sand systems. Standard sizes contain from one to twenty-four tubes, each having a nominal capacity of 4500 CFM. The multiple-tube design permits great operating flexibility — tubes can be added or removed to suit changes in process or exhaust requirements. Such flexibility is extremely advantageous for installations where future expansion is planned.

Pressure loss through the Type R varies with air volume. At the nominal rating of 4500 CFM per tube, pressure drop is 5.8" w.g. Typical water requirement is 3.5 gallons per 1,000 CFM of air cleaned. It is usual practice to recirculate water to the Type R from a settling tank or pond, adding only enough fresh water to compensate for evaporative loss. Since there are no spray nozzles or small orifices to plug, the Type R can use water having high solids content.

Standard Type R Roto-Clones have 10 gauge HRS housings and Type 304 stainless steel tubes. Optional construction materials include ¼" plate, all stainless steel, monel, and internal protective coatings.



ADVANTAGES

- No moving parts
- No entrainment eliminators
- No water in suspension
- No spray nozzles
- Small space requirement
- Light weight
- Flexibility in arrangement
- Wide range of capacities

TYPICAL APPLICATIONS

Acid pickling
Brake shoe grinding
Chemical processing
Coal handling
Fertilizer dryers and coolers
Food products
Foundry sand systems
Lightweight aggregate kilns
Metal mining
Municipal incinerators
Paper dust
Pharmaceuticals
Sandblasting
Sugar granulators

for ultra-high cleaning efficiency

Kinetic scrubber

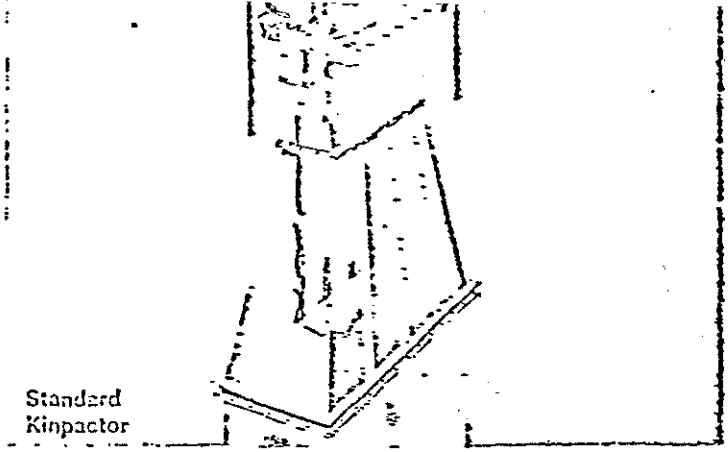
The AAF Kinpactor utilizes kinetic energy to collect very small dust and fume particles by the principle of impaction. The contaminated gas stream is accelerated to high velocity in the venturi shaped throat section — water introduced to the throat is atomized by the high velocity gas, and the contaminant particles collide with and are trapped by millions of small water droplets. The gas stream is decelerated — and maximum static pressure regained — in the long diverging section behind the Kinpactor throat. Entrained water droplets are removed from the gas stream by a cyclonic separator.

Gas-water contact is so thorough that even submicron particles are removed. The degree of cleaning is a direct function of energy input, which is reflected by the pressure drop across the Kinpactor. Throat pressure drop ranges from 8" w.g. to 100" w.g. depending on the contaminant particle size and desired degree of cleaning. Usual water requirement is 8 gallons per 1000 CFM of gas cleaned.

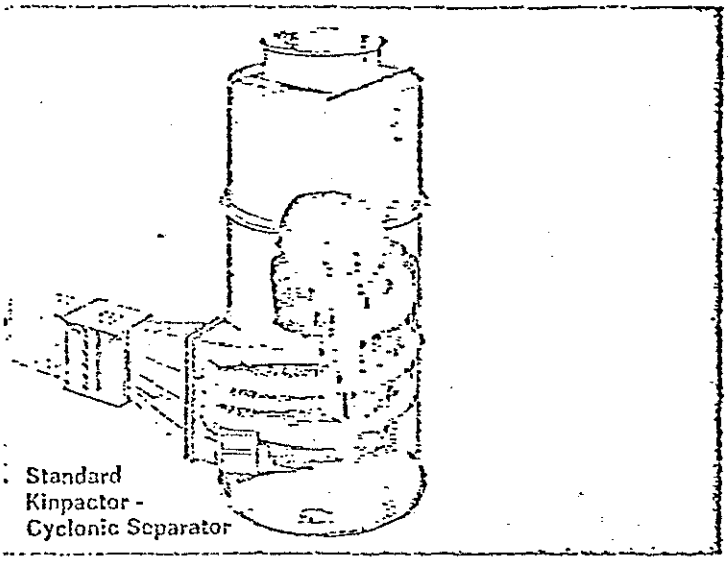
A special type V Kinpactor is used for collection of extremely cementacious dusts such as found on lime kiln applications. The type V utilizes no jets or nozzles which tend to plug on cementacious applications. There are no wet/dry zones in the type V where buildup is likely to occur. A flooded elbow is utilized as a transition piece between the type V Kinpactor and the water eliminator. Usual water requirement is 10 gallons per 1000 CFM of gas cleaned.

Both the standard and type V Kinpactors are equipped with a Cyclonic Separator which has smooth surfaces to eliminate any buildup of collected material.

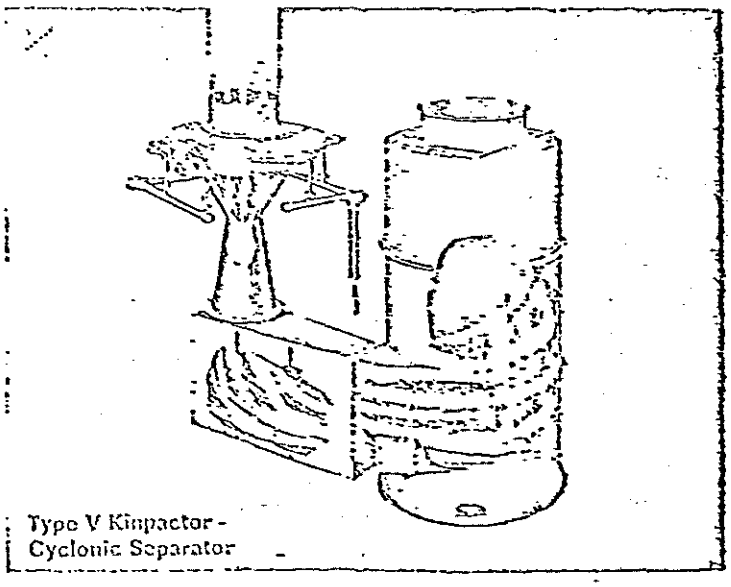
Kinpactors and Cyclonic Separators can be fabricated of mild steel, stainless steel, rubber-lined steel, monel, and fiberglass-reinforced polyester.



Standard Kinpactor



Standard Kinpactor - Cyclonic Separator



Type V Kinpactor - Cyclonic Separator

KINPACTOR APPLICATIONS

For Iron and Steel
- Cupolas
- Blast furnaces
- Basic oxygen furnaces
- Open hearth furnaces
- Electric arc furnaces
- Scarfing machines
- Sintering machines

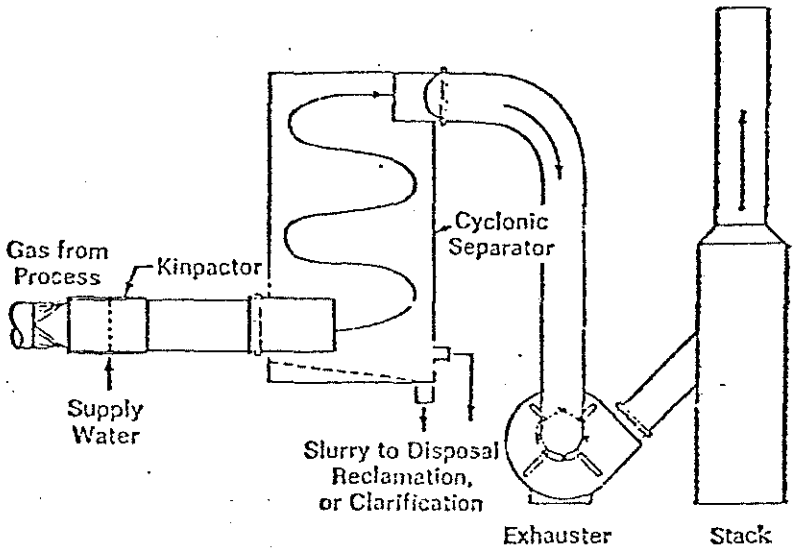
For Chemical Process
- Fertilizer dryers and coolers
- Fertilizer ammoniators
- Acid concentrators
- Spray dryers
- Flash dryers
- Roasting kilns

For Pulp and Paper
- Lime kilns
- Black liquor recovery boilers

For Non-Ferrous Metals
- Aluminum furnaces
- Lead blast furnaces
- Reverbatory furnaces
- Induction furnaces
- Sintering

For Other Processes
- Asphalt plants
- Coal processing
- Salt bath paint stripping
- Incinerators
- Boiler flue gas
- Wire insulation burning
- Galvanizing kettles
- Plastic and resin fumes

Kinpactor-separator arrangements



Typical Arrangement with Cyclonic Separator

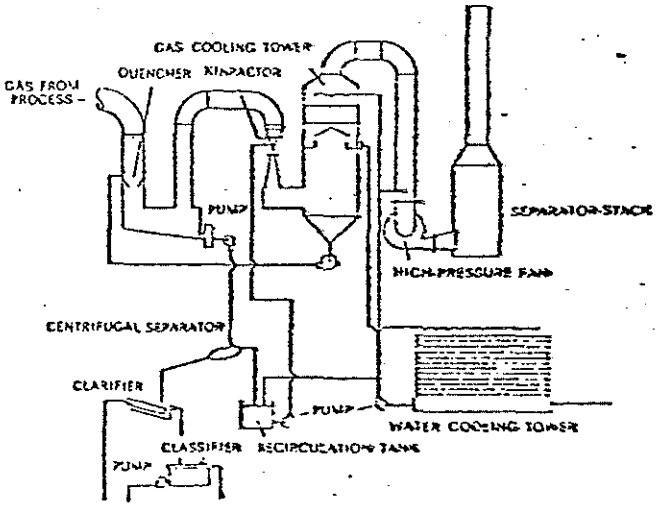
Custom-designed kinetic scrubber systems

AAF designs and manufactures custom-engineered ctic scrubber systems for larger volume process gas applications. Custom systems are normally used to clean hot gas volumes above 50,000 CFM. Kinetic scrubber systems commonly include:

- Quencher to initially cool process gas
- Kinpactor kinetic scrubber
- Gas cooling tower to further cool cleaned gas and recover the water evaporated in the quencher and Kinpactor
- High pressure fan
- Separator to remove any entrained water droplets
- Water cooling tower to remove heat absorbed from the gas stream
- Water recirculation system to remove collected solids from the effluent slurry and return clean water to the scrubber

Systems can be designed to reduce exit dust concentration to 0.05 grains per cubic foot or less. The Kinpactor can be equipped with an automatically controlled variable throat damper which maintains the same high cleaning efficiency regardless of ctuations in process gas volume.

AAF offers complete turnkey design and installation of the entire kinetic scrubber air pollution control system.



Typical custom-designed Kinpactor kinetic scrubber system.

REQUEST FAD BULLETINS 265 AND 266

for chemical fumes, mist, and vapor

COLAG HELAG

fume scrubbers

COLAG

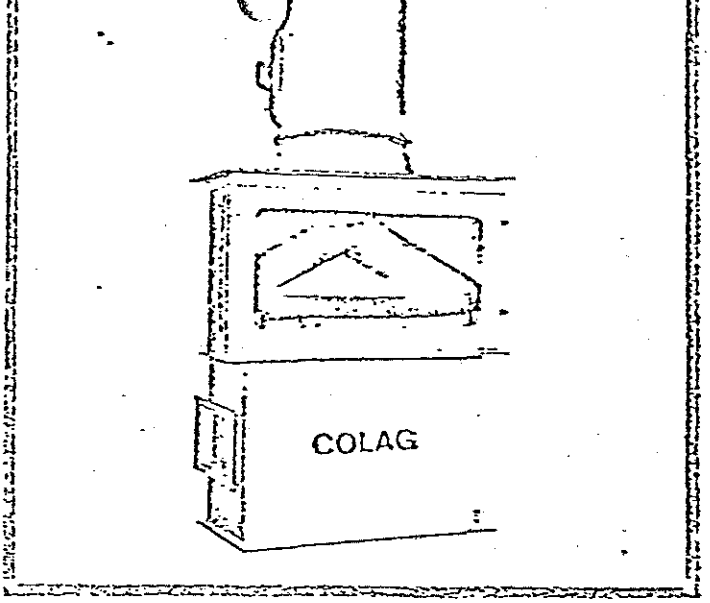
The unique COLAG fume scrubber is the result of AAF's search for a better means to collect chemical fumes, mists, and vapors.

The COLAG uses a specially designed scrubbing pad arrangement to thoroughly clean the contaminated air. Air enters the unit at high velocity and is evenly distributed by a special perforated plate. The reaction pad, located just above the plate, is constantly saturated with water to create millions of flooded, bubbling contact surfaces which scrub and re-scrub the air. Liquid droplets which pass from the reaction pad are trapped by sloped eliminator pads.

The COLAG is ideal for the collection of inorganic and organic acids, alkalies, water-soluble solvents, halogens, and ammonia. Because of its high collection efficiency and low water rate, the COLAG acts as an excellent concentrator and is often utilized as an important part of a process system.

The COLAG is available in seven sizes for air volumes of 1150 to 25,000 CFM. Arrangements utilizing one, two or three collection stages can be furnished. Units can be fabricated of mild steel, stainless steel, monel, solid PVC, and fiberglass-reinforced polyester. Protective coatings are also available.

Operation and maintenance is simplified by a large plexiglass observation window which provides easy access to the pads and plate. Disposable type pads slide out of the observation window for quick, low-cost replacement.



There are no liquid storage tanks, recirculating pumps, or heavy eliminator sections required — as a result the COLAG weighs less and requires less space than conventional collectors.

THREE OUTSTANDING ADVANTAGES OF COLAG

Highest Efficiency — The collection efficiency of the COLAG cannot be exceeded by any other fume scrubber operating at a comparable pressure loss and water rate.

Lowest Water Usage — The unique design of the COLAG allows operation at a lower water rate than any other collector of this type — as low as 0.1 gallons per 1,000 CFM of air cleaned.

Smallest Size — The COLAG operates at a substantially higher air velocity than other packing-type scrubbers.

TYPICAL APPLICATIONS

Aluminum anodizing
Pickling
Electroplating
Coating stripping
Acid dipping
Metal cleaning
Electro-polishing
Metal etching
Metal surface treatment
Printed circuit etching
Lab hood exhaust

TYPICAL APPLICATION NOT RECOMMENDED

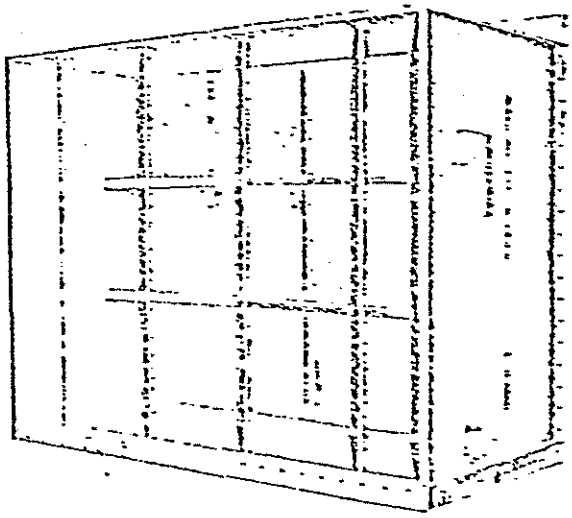
Any operation where solids are included in the fume. This is a fume scrubber only.

HELAG

For applications where there are larger air volumes and efficiency requirements are less than that obtained by a COLAG, a HELAG may be utilized. Of commercially available scrubbers operating at a comparable water usage, only AAF's COLAG offers a higher collection efficiency than a HELAG.

The HELAG is available in six sizes for air volumes of 7,000 to 52,000 cfm. Arrangements utilizing one, two, or three collection stages can be furnished. All units are fabricated of fiberglass reinforced polyester and have PVC piping and nozzles.

A large plexiglass observation window allows visual inspection of the HELAG interior even while the unit is in operation. Disposable reactive and eliminator pads easily accessible for quick, low-cost replacement.



Wet Collector Performance

Collector performance is usually stated in terms of collector efficiency, which may be calculated by the equation:

$$\text{Efficiency } (\%) = \frac{Mi - Mo}{Mi} \times 100$$

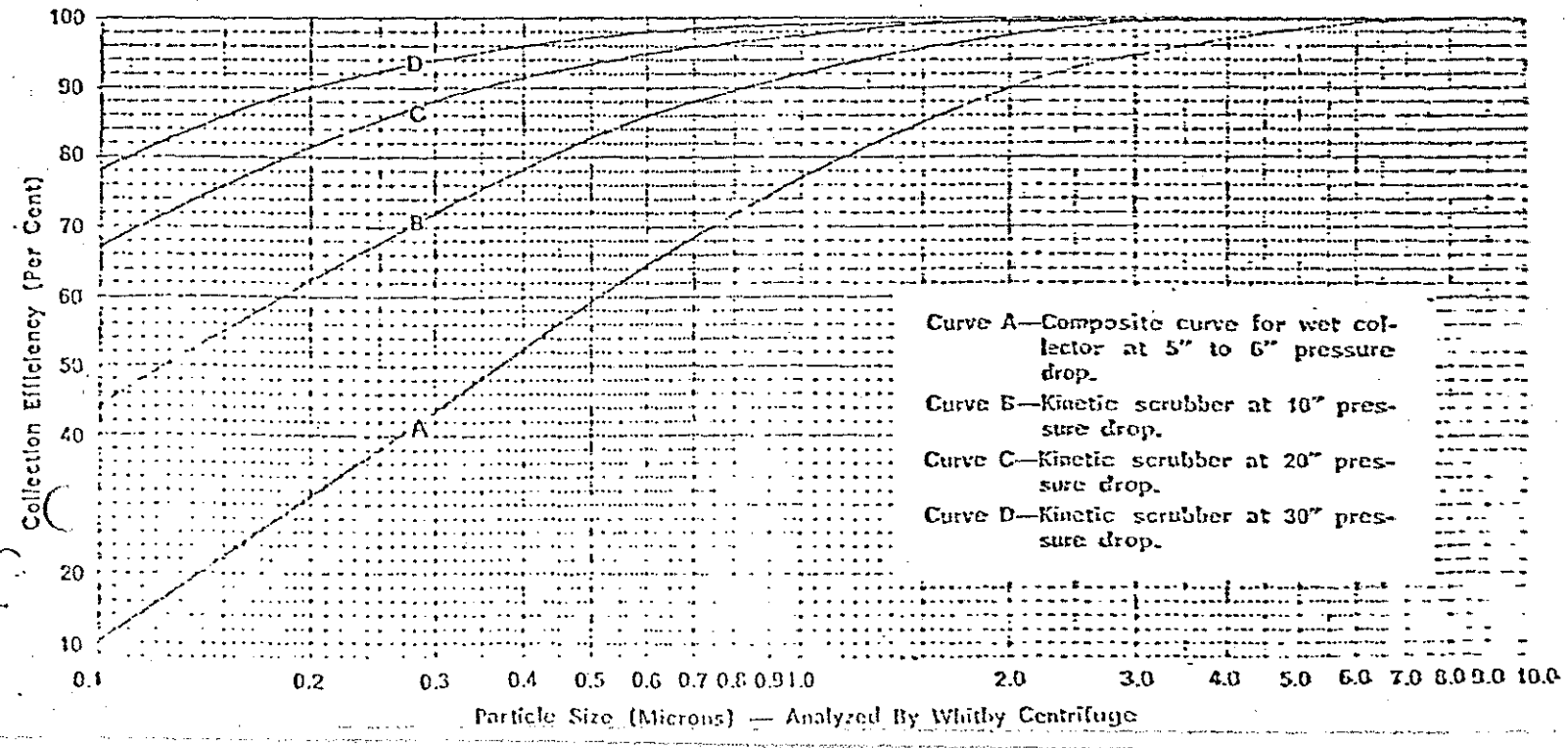
where Mi is the contaminant mass flow rate at the collector inlet and Mo is the contaminant mass flow rate at the collector outlet. Air pollution regulations normally establish the allowable rate of contaminant emission. Where no regulation exists, the user must determine the desired exit level, possibly by referring to regulations in nearby locales. The value of Mi is fixed by the application, and can be determined accurately by isokinetic sampling of the gas stream. If the process is not yet in operation, Mi can be estimated on the basis of test data from similar applications.

Because wet collectors have a fractional efficiency characteristic, the stated efficiency for a given collector is only meaningful when it is based on particle size, usually expressed in microns. There are many ways of determining particle size, and the results vary widely - one method might indicate a particle diameter of 5 microns while a second method could give a value as low as 3 microns. It should be readily apparent that collector efficiency curves can be misleading if the method of particle size analysis is not stated.

In accordance with the Contact Power Theory (see page 2), Curve A represents the typical efficiency of any well-designed wet collector operating at a 5 to 6" w.g. pressure drop, when particle size is determined by the Whitby Centrifuge (liquid-sedimentation) method. Published curves for such collectors may deviate appreciably from the curve shown. When appropriate corrections are made to compensate for the method of particle size analysis, the deviations will almost invariably disappear and the curves found to coincide.

Curves B, C, and D show collection efficiency vs. particle size for a kinetic scrubber operating at pressure drops of 10", 20", and 30" w.g., respectively. Efficiency is substantially higher in the small particle size range due to the additional energy expended to improve air-water contact.

The fractional efficiency characteristic of wet collectors presents an additional problem in evaluating performance. Efficiency is commonly expressed on a weight basis. An efficiency of 93 to 99 per cent by weight does not necessarily ensure that the contaminant discharged to atmosphere will not be visible. Visibility is a function of light reflectance, which in turn is directly proportional to the surface or reflective area of the particles emitted. Since a unit weight of small particles represents considerably more total surface area than an equal weight of large particles, it is entirely possible to collect over 90% of the particles by weight (by capturing the larger sizes) yet remove less than 30% of the total reflective area. It should be kept in mind that collection efficiency and discharge appearance are only remotely related.



OPERATION	Dust Loading	Particle Size	Type W Roto-Clone	Type N Roto Clone	Type R Roto-Clone	Kinpactor	Notes
CERAMICS							
Materials Handling	Light	Fine	USUAL	Frequent	Frequent	Not Req'd	1
Fettling and Grinding	Med-Hvy	Fine-Med	Occasional	Frequent	Frequent	Not Req'd	2
Spraying	Lt-Med	Medium	USUAL	Occasional	Occasional	Not Req'd	
CHEMICALS							
Materials Handling	Lt-Hvy	Varies	Frequent	USUAL	USUAL	Rare	3, 4
Crushing and Grinding	Med-Hvy	Varies	Occasional	USUAL	USUAL	Occasional	4
Weighing and Screening	Lt Med	Fine-Med	USUAL	Frequent	Frequent	Not Req'd	4
Roasters, Kilns, Dryers	Heavy	Medium	Occasional	USUAL	USUAL	Frequent	4, 5, 6
Bin Ventilation	Light	Fine-Med	USUAL	Occasional	Occasional	No	
FERTILIZER							
Screening and Handling	Med-Hvy	Fine-Med	Occasional	No	No	No	
Dryer, Cooler	Heavy	Fine-Med	Occasional	Occasional	Occasional	USUAL	5
Ammoniator	Lt-Med	Fine	Rare	No	Rare	USUAL	5
COAL MINING AND POWER PLANT							
Materials Handling	Moderate	Medium	Frequent	USUAL	USUAL	Not Req'd	
Bunker Ventilation	Light	Fine	Frequent	Rare	Rare	Not Req'd	7
Dedusting and Cleaning	Heavy	Medium	Frequent	USUAL	USUAL	Not Req'd	
Dryers	Heavy	Fine-Medium	No	Frequent	USUAL	USUAL	5
FOUNDRY							
Abrasive Cleaning	Mod-Hvy	Fine-Med	No	Occasional	Rare	Not Req'd	6
Shakeout-Enclosed Hood	Moderate	Fine	Rare	Frequent	USUAL	Rare	
Shakeout-Side Hood	Light	Fine	USUAL	Rare	USUAL	Rare	
Sand Handling	Moderate	Fine-Med	Rare	Frequent	USUAL	Not Req'd	
Tumbling Mills	Heavy	Medium	Rare	USUAL	No	No	6
Cupola	Moderate	Varies	No	No	No	USUAL	5, 6, 8
Non-Ferrous Melting	Varies	Ext-Fine	No	Occasional	No	USUAL	5, 6
PHARMACEUTICALS AND FOOD PRODUCTS							
Mixing, Grinding, Weighing, Blending, Packaging	Light	Medium	USUAL	Frequent	Frequent	Not Req'd	6
Coating Pans	Varies	Fine-Med	USUAL	No	Frequent	No	
Sugar Handling	Light	Fine-Med	Frequent	Occasional	Frequent	Not Req'd	6
Sugar Granulators	Moderate	Fine-Med	USUAL	Frequent	Frequent	Not Req'd	
ROCK PRODUCTS AND METAL MINING							
Materials Handling	Mod-Hvy	Fine-Med	Occasional	USUAL	USUAL	Not Req'd	6
Crushing and Screening	Heavy	Medium	Occasional	USUAL	USUAL	Rare	6
Dryers and Kilns	Mod-Hvy	Fine Med	Rare	USUAL	USUAL	USUAL	5, 6,
Coolers	Moderate	Coarse	Rare	Occasional	Occasional	Not Req'd	

NOTES:

1. Dust released from bin-filling, weighing, mixing, pressing, and forming. Refractory products screening and dry pan operations more severe.
2. Operations found in vitreous enameling, wall and floor tile, and pottery.
3. Includes conveying, elevating, mixing, and packaging.
4. Category covers so many different materials that specific recommendations are difficult to report.
5. Corrosion protection normally required.

OPERATION	Dust Loading	Particle Size	Type W Roto-Clone	Type N Roto-Clone	Type S Roto-Clone	Kinpactor	Notes
RUBBER AND PLASTIC PRODUCTS							
Mixers	Moderate	Fine	Frequent	Occasional	Occasional	Not Req'd	6
Batchout Rolls	Light	Fine	USUAL	Rare	Rare	No	6
Talc Dusting	Moderate	Medium	Frequent	Occasional	Occasional	Not Req'd	6
Grinding and Buffing	Moderate	Coarse	Frequent	Occasional	No	Not Req'd	
Plastics MTI Handling	Moderate	Medium	USUAL	Frequent	Occasional	Not Req'd	
Plastics Finishing	Light	Fine-Med	Occasional	Occasional	Occasional	Not Req'd	
STEEL MILLS							
Basic Oxygen Furnace	Med-Hvy	Ext-Fine	No	No	No	USUAL	5, 6
Electric Arc Furnace	Light	Ext-Fine	No	No	No	Frequent	5, 6, 9
Open Hearth	Med-Hvy	Fine	No	No	No	USUAL	5, 6
Blast Furnace	Heavy	Varies	No	No	No	USUAL	5, 6
Scarfing	Light	Ext-Fine	No	Rare	No	USUAL	
Coal and Coke Handling	Moderate	Medium	Frequent	USUAL	USUAL	Not Req'd	
Sintering Machines:							
Bed Exhaust	Medium	Fine-Med	No	Rare	No	Rare	5
End Dump Screen	Heavy	Fine-Med	No	USUAL	Rare	Frequent	
Hot Strip Mills	Light	Fine	No	USUAL	Rare	Frequent	
Coke Screening	Med-Hvy	Medium	Rare	Occasional	Occasional	Not Req'd	6
Materials Handling	Med-Hvy	Fine-Med	Rare	Rare	Frequent	Occasional	6
MISCELLANEOUS							
Acid Mists	Light	Fine	Frequent	Frequent	Occasional	Not Req'd	5, 10
Acid Pickling	Moderate	Fine	Rare	USUAL	USUAL	Occasional	5
Asphalt Plant Dryers	Heavy	Fine-Med	No	Frequent	Frequent	USUAL	5
Brake Lining Grinding & Sanding	Heavy	Medium	Frequent	Rare	Frequent	Not Req'd	
Lead Battery Plants	Light	Fine-Med		USUAL		Occasional	5
Leather Buffing	Moderate	Medium	USUAL	No	Occasional	Not Req'd	
Leather Sanding	Moderate	Fine-Med	Frequent	No	Frequent	Not Req'd	
Metal Buffing and Polishing	Light	Varies	No	USUAL	No	No	
Newspaper Lead Pots	Light	Fine	USUAL	Rare	No	No	
Offset Spray	Light	Fine	USUAL	Rare	Occasional	Not Req'd	
Paint Stripping (Salt Bath)	Light	Ext-Fine	No	No	No	USUAL	
Paper Cutting	Moderate	Medium	Occasional	No	No	No	
Paper Grinding	Mod-Hvy	Medium	Occasional	Rare	No	No	
Wood Sanding	Moderate	Fine	Frequent	No	No	No	

6. Fabric collectors (AAF AMERtube, AMERpulse, AMERtherm) are frequently used.
7. High efficiency dry centrifugal collectors (AAF Type D Roto-Clone) frequently used.
8. AAF AMERclone high efficiency dry centrifugal can be used where codes permit 0.20 grains per cubic foot in discharge and #2 Ringleman opacity.
9. Many furnaces now use direct shell evacuation instead of old style hood.
10. AAF COLAG or HELAG fume scrubbers frequently used.
11. Type V Kinpactor usually used for cementacious dusts such as lime.

Listings under "Dust Loading" and "Particle Size" are averages and will vary from job to job. The ranges are as follows:

Dust Loading		Particle Size	
Light	½ to 2 Grains/Cu. Ft.	Extremely Fine	50% in ½ to 2 Micron Range
Medium	2 to 3 Grains/Cu. Ft.	Fine	50% in 2 to 7 Micron Range
Moderate	3 to 5 Grains/Cu. Ft.	Medium	50% in 7 to 15 Micron Range
Heavy	Over 5 Grains/Cu. Ft.	Coarse	50% Above 15 Microns

TABLE 1		TABLE 2		TABLE 3		
Area of Circles		Velocity Pressure		Temperature—Density		
Dia.	Sq. Ft.	Vp	FPM	Temp °F	Density Factor	Wt. Per Cu. Ft.
1½	.0123	.10	1226	0	1.152	.0846
2	.0218	.15	1553	70	1.000	.0749
2½	.0341	.20	1791	100	.946	.0709
3	.0491	.25	2003	150	.869	.0651
3½	.0668	.30	2193	200	.803	.0602
4	.0873	.35	2373	250	.747	.0560
4½	.1104	.40	2533	300	.697	.0522
5	.1364	.45	2688	350	.654	.0490
5½	.1650	.50	2832	400	.616	.0462
6	.1964	.55	2973	450	.582	.0436
6½	.2304	.60	3102	500	.552	.0414
7	.2673	.65	3230	550	.525	.0393
7½	.3068	.70	3351	600	.500	.0375
8	.3491	.75	3468	650	.477	.0355
8½	.3942	.80	3582	700	.457	.0342
9	.4418	.85	3692	750	.438	.0328
9½	.4923	.90	3800	800	.421	.0315
10	.5454	.95	3905	850	.404	.0303
11	.6600	1.00	4005	900	.390	.0292
12	.7854	1.10	4203	950	.376	.0282
13	.9218	1.20	4390	1000	.363	.0272
14	1.069	1.30	4566			
15	1.227	1.40	4735			
16	1.396	1.50	4895			
17	1.576	1.60	5065			
18	1.767	1.70	5225			
19	1.969	1.80	5380			
20	2.182	1.90	5522			
21	2.405	2.00	5664			
22	2.640	2.20	5940			
23	2.885	2.40	6210			
24	3.142	2.50	6340			
25	3.409	2.60	6460			
26	3.687	2.80	6700			
27	3.976	3.00	6937			
28	4.276	3.20	7170			
29	4.587	3.40	7395			
30	4.909	3.50	7500			
32	5.585	3.80	7810			
33	5.940	3.50	7810			
34	6.305	4.00	8010			
36	7.069	4.20	8210			
38	7.876	4.40	8400			
40	8.777	4.50	8470			
42	9.621	4.60	8560			
45	11.045	4.80	8770			
48	12.566	5.00	8950			

TABLE 4		
Altitude—Density		
Elev. In Ft.	Density Factor	Wt. Per Cu. Ft.
0	1.000	.0749
500	.981	.0735
1000	.967	.0721
1500	.944	.0707
2000	.926	.0694
2500	.909	.0681
3000	.891	.0668
3500	.874	.0655
4000	.855	.0643
4500	.842	.0631
5000	.826	.0619
5500	.810	.0607
6000	.795	.0596
6500	.780	.0585
7000	.766	.0574
7500	.751	.0563
8000	.737	.0552
8500	.723	.0542
9000	.710	.0532
9500	.697	.0522
10000	.685	.0514

TABLE 5—AIR VOLUME IN CFM HANDLED THROUGH BRANCH PIPES

Diameter of Pipe	Velocity in Pipe in FPM									
	2000	2500	3000	3500	4000	4500	5000	5500	6000
3"	65	123	147	172	196	221	245	270	295
3½"	134	167	200	234	267	300	334	367	400
4"	175	218	262	305	327	350	393	437	480
4½"	221	276	331	387	415	442	497	552	608
5"	273	341	409	479	512	546	614	682	750
5½"	330	413	495	578	618	660	742	825	908
6"	393	491	589	688	736	786	884	982	1080
7"	534	668	802	936	1002	1070	1204	1338	1472
8"	699	874	1049	1220	1309	1395	1571	1745	1920
9"	887	1105	1325	1545	1657	1769	1988	2210	2429
10"	1092	1364	1637	1910	2046	2182	2455	2729	3002
11"	1320	1653	1983	2310	2473	2640	2970	3300	3630
12"	1570	1965	2355	2750	2945	3140	3535	3925	4320
13"	1849	2305	2765	3225	3457	3685	4150	4610	5071

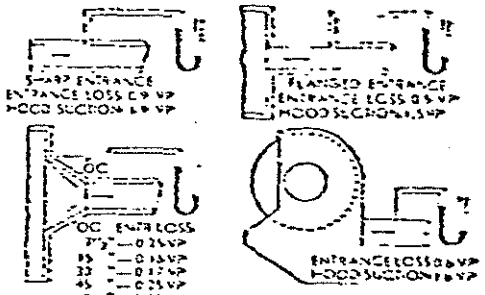
TABLE 6—SUCTION IN INCH W.G. FOR VARIOUS ENTRANCE LOSSES
(Suction Equals 1 VP + Entrance Loss)

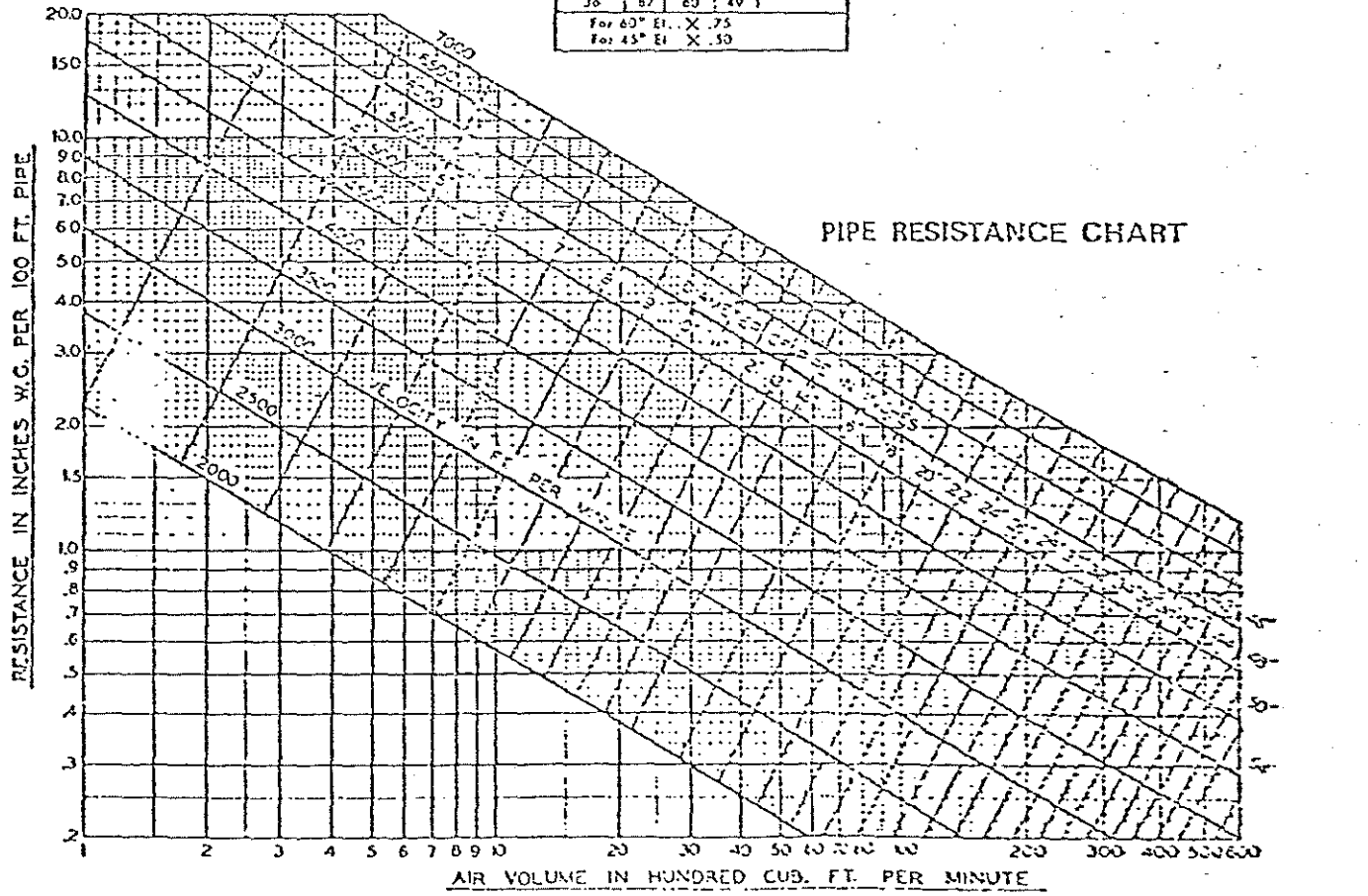
Entr. Loss In VP	2000	2500	3000	3500	4000	4500	5000	5500	6000
0.2	0.33	0.47	0.67	0.92	1.06	1.20	1.52	1.82	2.27	2.70
0.4	0.35	0.55	0.79	1.05	1.23	1.40	1.77	2.13	2.64	3.15
0.6	0.43	0.67	0.93	1.22	1.41	1.60	2.02	2.50	3.07	3.60
0.8	0.45	0.70	1.01	1.39	1.53	1.80	2.23	2.51	3.40	4.05
1.0	0.50	0.75	1.12	1.54	1.76	2.00	2.53	3.12	3.74	4.50
2.0	0.75	1.12	1.63	2.21	2.64	3.00	3.60	4.63	5.67	6.75

TABLE 7—Equivalent Resistance of Elbows and Branch Entries (In Feet of Straight Pipe)

Dia. of Pipe	90° Elbow Inside Radius 1 D	1½ D	2 D	Angle of Entry 30°	45°
3"	5	4	3	2	3
4"	7	5	4	3	5
5"	9	6	5	4	6
6"	11	7	6	5	7
7"	13	9	7	6	9
8"	14	10	8	7	11
10"	20	13	11	9	14
12"	25	17	14	11	17
14"	30	21	17	13	21
16"	36	24	20	16	25
18"	41	28	23	18	28
20"	46	32	26	20	32
24"	57	38	32		
30"	75	51	42		
36"	87	60	49		

For 60° El. . . X .75
For 45° El X .50





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City of Corvallis

CORVALLIS CITY HALL
501 S.W. MADISON AVENUE
CORVALLIS, OREGON 97330

MAYOR'S OFFICE (503) 757-6985

December 7, 1979

Mr. John E. Borden
Manager
Willamette Valley Region
Department of Environmental Quality
1095 25th Street S.E.
Salem, OR 97310

Dear Mr. Borden:

On November 28, 1979, the Department of Environmental Quality held a hearing in Corvallis at the request of Evans Products Company pursuant to your permit number 02-2203, application number 1616, dated August 20, 1979. The hearing was held in regard to a permit application for an air contaminant discharge permit for the Evans Products Submicroporous Battery Separator Plant. Both the staff report discussing the contaminant, prepared October 22, 1979, and the testimony developed by concerned parties in the area raised some questions about the amounts of fugitive trichlorethylene (TCE) being released into the atmosphere.

Based upon the testimony given at the public hearing, the City Council at their regular meeting December 3, 1979, voted 5-4 to request the DEQ not to issue the final permit until the questions raised about the amounts of fugitive emission in relationship to the amounts captured in their pollution control devices are answered. It was the Council's position that additional testing and evaluation should clearly demonstrate that the public's health is not endangered. This request should not be construed as requesting a shutdown of the operation, only a delay until adequate assurances are given to the affected population group.

Thank you for your consideration in this matter. If you require additional information, please contact Mike Randolph at 757-6903.

Sincerely,

Alan Berg

Alan Berg
Mayor

AB:MMR:msm

cc: Mr. B.E. Mikulka
City Manager Pokorny
Public Works Director Randolph
Members of the City Council

benton county

board of commissioners

December 13, 1979

William H. Young, Director
Department of Environmental Quality
522 SW 5th Avenue
P.O. Box 1760
Portland, OR 97207

RE: Air Contaminant Discharge Permit;
Evans Products Battery Separator Plant

Dear Mr. Young:

While Benton County does not have direct responsibility for regulation of air quality issues, we are concerned about any potential health hazard to Benton County residents. We would urge that you, as Director of the Department of Environmental Quality, give full consideration to the protection of South Corvallis and Benton County citizens in issuing any permits to Evans Products.

We understand that the draft of the permit includes special provisions designed to control fugitive emissions from the plant and that DEQ staff are meeting with Evans Products representatives to gain agreement on this provision. We trust that the permit that is ultimately issued will provide a high level of protection to the citizens both now and in the future.

Sandra Gazley is Benton County's zoning administrator. If you have any questions about our concerns, feel free to contact her by calling 757-6821, Benton County Public Works.

Sincerely,

Barbara Ross
Chairman

BR:sr
cc: Art Boyle

Friends of Benton County

7610 NE Pettibone Road
Corvallis, OR 97330

The Honorable Victor Atiyeh
Governor, State of Oregon
Oregon State Capitol
Salem, OR 97310

December 7, 1979

Sir:

On November 28, 1979 the Department of Environmental Quality held a public hearing on a proposed Air Contaminant Discharge Permit for the Evans Products Submicroporous Battery Separator Plant in Corvallis. At this hearing DEQ disclosed that the plant emits 100,000 lbs. per month of trichloroethylene (TCE), a toxic substance, into the predominantly residential neighborhood. As one shocked resident exclaimed, "Good Lord, that's two and a half tons each working day!"

The Friends of Benton County initiated a petition requesting delay in issuance of the permit until additional testing and evaluation prove that the public's health is not endangered. Acopy of the petition is enclosed. We are presently circulating the petition: the response is excellent.

We have addressed the petition to you, as well as to local officials, because the ultimate responsibility for the health and safety of the people of Oregon is yours. The Friends of Benton County ask your help in obtaining a delay in issuance of the permit until the health of those affected by the TCE emitted by Evans Products, both employees and residents, can be reasonably assured. We ask for the delay for the following reasons:

1) A very large amount of TCE is being emitted.
2) TCE is toxic, a mutagen, and a potential cause of cancer in man.
3) The plant adjoins a residential area upwind of city center.
4) The permit addresses only 5% of TCE emissions, the rest are labeled "fugitive emissions" and are unaccounted for.
5) The permit establishes a precedent allowing a company to start a process, without a permit, in violation of state statutes, without penalty.
6) A second stack, discovered by DEQ just three weeks prior to the hearing, is estimated by DEQ to emit several times as much TCE as the stack addressed in the permit.
7) DEQ estimates of public exposure were based on a mathematical model which ignored fugitive emissions, although they constitute 95% of the total.
8) The token ambient air test, only 12 samples on one day, was inadequate.
9) Although established tests can determine levels of human exposure by examination of breath, blood, or urine, DEQ conducted no tests of this kind on exposed persons, not even on those complaining of symptoms resembling those resulting from TCE exposure.

We urgently request your prompt attention to this matter.

Sincerely,

William C. Denison
President, Friends of Benton County

THE CARCINOGEN ASSESSMENT GROUP'S PRELIMINARY RISK ASSESSMENT ON TRICHLOROETHYLENE

Type One

Roy E. Albert, M.D.
Chairman

Particpating Members
Elizabeth L. Anderson, Ph.D.
Warren Hercules, B.S.E.E.
Kristine Hess, B.S.
Charlingayya Hiremath, Ph.D.
Robert McGaughy, Ph.D.
Steven Miller, M.S.
Ruth Pertel, Ph.D.
Wade T. Richardson, J.D.
Dharm Singh, D.V.M., Ph.D.
Todd W. Thorslund, Sc.D.
Adrienne Zahner, Ph.D.

I. Summary

Trichloroethylene (TCE) administered by oral gavage has induced hepatocellular carcinoma with metastases in male and female B6C3F1 mice with an incidence significantly higher in treated than in control groups. Although four negative inhalation studies have been reported, the short time of observation in three cases and the unavailability of the time of observation in one, make these results inconclusive for evaluation of carcinogenic potential. Chronic oral administration at dose levels of 1,097 mg/kg and less did not induce hepatocellular carcinoma in Osborne-Mendel rats. Reports on its mutagenic activity have shown that with metabolic activation, TCE is positive in the Ames test system using Salmonella typhimurium, in E. coli K-12, and in Saccharomyces cevevisiae, in addition to other system tests.

The positive carcinogenic response to TCE in mice, along with its ability to induce genetic changes constitute sufficient evidence that TCE is a possible human carcinogen.

A quantatative risk analysis based on the animal studies assuming a lifetime continuous exposure to 1 ug/m^3 showed an individual lifetime risk of 4.19×10^{-6}. Similarly, the risk from a continuous lifetime exposure to 1 ppb is 2.25×10^{-5}.

There was a good deal of arithmetic and assumption in this document which has been deleted here. I have the complete document. VP

page

1 (introduction) In 1972, OSHA, adopted, as a workplace standard, for workplace exposure to TCE of 100 ppm as an 8-hour time-weighted average, 200 ppm as an acceptable ceiling limit, and 300 ppm as a peak exposure limit during not more than 5 minutes in any 2 hour period.

2 While a few countries other than the United States have set 100 ppm as an environmental limit, many others have set much lower limits,

3 In view of well-established toxic effects found among occupationally exposed medical and dental personnel, including maternal and fetal effects and possible carcinogenicity, NIOSH recommended that exposure to halogenated anesthetic gases, including TCE be controlled so as not to exceed 2 ppm, sampled over a period not to exceed 1 hour.

In respons to the NCI announcement, and the controversial nature of the results, a number of studies were initiated or planned to further explore the carcinogenic potential of TCE.
At the time of this writing, an appropriate worker population exposed to TCE has not been identified for study.

NIOSH believes that sufficient experimental evidence has now accrued to demonstrate a possible carcinogenic potential of TCE in occupational environment.

4 (Chemical and Physical Properties) At room temperature, TCE is a clear, colorless, noncorrosive, heavy liquid with a sweet odor characterized as ethereal or chloroform-like and a reported odor threashold ranging from 21 to 400 ppm.

TCE is volatile, but neither flammable nor explosive at room temperature.

TCE is practically insoluble in water.

5 TCE decomposes under a number of environmental conditions and may degrade to more hazardous compounds. Among these are phosgene, carbon monoxide, dichloroacetylene , TCE ozonides, hydrochloric acid and TCE eposide.

High temperature, especially above 125 C, further promote the degradation process, with the production of phosgene and hydrogen chloride.

6 It should thus be obvious that the hazard from TCE must be judged not only on the basis of its own toxicity but also on those of the products that may be produced by reaction with other chemicals present during the processes in which TCE is used.

11 Biological effects
A. toxicity Toxic effects on the central nervous and cardiovascular systems, skin liver and kidney have been attributed to exposure to TCE.

Effects on the CNS, principally depression, have been well documented. Among the symptoms most often described are: headache, nausea, vomiting, dizziness, vertig fatigue, mental dullness, sleepiness, feeling of light-headedness, insomnia, and burning eyes. Trigeminal palsies have been reported as have several cases of visual deterioration.

High, acute doses have also resulted in cardivascular and respiratory effects with a number of death attributed to respiratory arrest, cardiac arrhythmias, including ventricular fibrillation, and primary cardiac standstill. Respiratory distress has been observed often, especially following intermittent inhalation exposure, with such symptoms as chest tightness and labored breathing.

TRICHLOROETHYLENE (TCE)-From NIOSH publication on TCE dated Jan. 1978
-Special Occupational Haxard Review

page

iv TCE's acute toxicity is well known and is related mainly to contral nervous system depression, cardiac arrhythmias, and dermal effects. In contrast, chronic effects are not as well documented under usual occupational exposure conditions. There is evidence, however, for leatent effects, including those of liver, kidneys, and nervous system.

v No evidence is known which associates TCE with an increased risk of cancer in humans. However epidemiology studies to test for such an association have only recently been initiated.

Based upon this special review of all these data, NIOSH concludes that TCE has a carcinogenic potential in the workplace: however, it is not considered to be a potent carcinogen.

1

page

11 Dermal effects have long been noted, principally as a localized reddening or flushing of the skin, although generalized dermatitis has also often occured as a result of exposure to TCE

12. Small quantities of ethanol have been shown to increase the concentration of TCE in the body, of practical importance in assessing the hazard of TCE.

The effects of chronic exposure of humans to TCE have not been extensively studied and thus are not well characterized. Studies with laboratory animals and a few clinical studies, demonstrated latent effects of the liver, kidney and nervous system.

Thus, it is unlikely that the potential magnitude of any liver or kidney abnormalities in humans exposed for long periods to TCE are fully known.

13. In assessing possible toxic effects associated with working with TCE, one must be concerned not only with the toxicity of TCE and its metabolites, but also with that of other chemicals formed by its environmental degradation or of products of reaction between TCE and components of normal biological systems.

TCE vapor around open flames or even drawn through lighted cigarettes may degrade to phosgene and CO. Acute exposures to phosgene at 10-15 ppm may be fatal, with severe distress occuring at even lower concentrations.

56 (Results of NIOSH Health Hazard Evaluations) Low levels of trichloroacetic acid and trichloroethanol were found in the urines of workers although the exposures were on the average much less than one-half the standard, ranging from 10-95 ppm.

57. Urine levels of trichloroethanol correlated well with exposures below 50% of the federal limit. The exposures were intermittent and only for a portion of the working period. Even so, toxic effects were reported.

From these heatlth hazard evaluations there seems ample reason to challenge the current Federal standard based upon acute effects alone. Effects have been documented at levels of one fourth to one-half the OSHA limit.

58. (Summarization of Biological and Exposure Data) The evidence, as present in this report, requires that TCE be considered as a potential carcinogen humans: however, the animal and in vitro results do not warrent considering TCE as a potnet carcinogen

OAQPS-78-12
75/3 II-A-028

HEALTH EFFECT SUMMARY DOCUMENTS

on

TRICHLOROETHYLENE

METHYLENE CHLORIDE

METHYL CHLOROFORM

TRICHLOROTRIFLUOROETHANE

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Mr. Art Boyle
7610 NE Pettibone Road
Corvallis, Oregon 97330

HEALTH EFFECTS OF TRICHLOROETHYLENE

Review of the available data suggests that trichloroethylene has a low potential for serious adverse effects in humans exposed to ambient concentrations found or expected in the environment. The global average background concentration of trichloroethylene is about 8 parts per trillion (ppt) (Singh et al., 1978). However, trichloroethylene is a toxic chemical with established carcinogenic and mutagenic properties, and the consequences of chronic exposure to low levels of the compound are unknown. Evidence for the carcinogenicity of trichloroethylene include: (1) statistically significant excess of cancer in laboratory animals, (2) mutagenicity of the chemical and its biometabolites in several test systems, (3) structural and metabolic similarities of trichloroethylene to vinyl chloride and other important carcinogens and mutagens. Epidemiology studies in Finland and Sweden did not find any association of trichloroethylene and cancer. However, the investigators cautioned against ruling out carcinogenicity, as the sensitivity of the studies is low and, the observation period is short. Considering the currently available laboratory evidence of its carcinogenic potential minimizing all human exposure to trichloroethylene is considered important.

CARCINOGENICITY

Trichloroethylene was one of several halogenated hydrocarbon compounds selected for bioassay by the National Cancer Institute because of chemical structure and lack of adequate toxicity data as well as large production and extensive use. In a study conducted for the National Cancer Institute the chemical was appraised separately in male and female Osborne-Mendel rats and male and female $B_6C_3F_1$ mice. Commercial trichloroethylene was administered to

the test animals in a corn oil vehicle by gastric intubation (stomach tube) 5 days a week for 78 weeks. The results of this carcinogen bioassay of trichloroethylene indicate the induction of a highly significant number of hepatocellular carcinomas in both male and female mice, but no carcinogenic effects in rats. The National Cancer Institute concluded that, under the conditions of the bioassay, trichloroethylene is a carcinogen in mice. The results do not provide evidence that trichloroethylene causes cancer in rats. These findings have been described in great detail (National Cancer Institute, 1976).[1]

SCIENTIFIC ISSUES CONCERNING THE RELEVANCE OF THE NCI BIOASSAY TO NORMAL HUMAN EXPOSURE

Species Differences

A significant association between increased dosage and accelerated mortality was observed in rats treated with trichloroethylene. Early mortality may have obscured a carcinogenic effect in these animals. However, a carcinogenic potential in the mouse has been demonstrated for trichloroethylene under the test conditions and similar results were obtained from the inhalation study administered by the Manufacturing Chemists Association (MCA).[2] Difference in species response to chemical carcinogens might be attributed to differing metabolic pathways and to an inability of some species to convert effectively the test chemical, in this case, trichloroethylene, to an active carcinogen. Bannerjee and Van Duuren (1978)[4] have demonstrated differences in the metabolism of trichloroethylene by the $B_6C_3F_1$ mouse and the Osborne-Mendel rat used in the NCI study. Their in vitro findings of a higher degree of binding of trichloroethylene to microsomes in mice than in rats agree well with the test results of NCI bioassay for trichloroethylene--hepatocellular carcinoma in the mice, no significant tumors in the rat.

ROUTE OF EXPOSURE

In the NCI study, trichloroethylene was administered by gastric intubation. Ambient air exposures are predominantly by inhalation. The MCA study, which appears to be in agreement with the results of the NCI study, was an inhalation exposure.

DOSE LEVELS

High dose levels were used in the NCI bioassay to increase the probability of a tumorigenic response by the test system.

EXPOSURE TO OTHER CHEMICALS

The animals in the NCI bioassay may have been exposed to low levels of known carcinogens by way of contaminants in the trichloroethylene, the air, water, or feed. These contaminants may have exerted possible additive or modifying effects.

Additional Studies

Similar results from an inhalation carcinogenicity study administered by the Manufacturing Chemists Association (MCA) support the conclusions of the National Cancer Institute Bioassay. This study also indicates no evidence of cancer in rats but an apparent induction of liver cancer in mice.[2] Pathology was completed on only the livers of the animals in the MCA study.[2]

Waters et al. (1977)[3] listed four other toxicity studies, none of which revealed evidence for carcinogenicity.[4] All of these studies had major design weaknesses such as inadequate period of exposure or observation, too few animals, and in three studies, no deaths or data recorded on any of the animals, and thus the studies do not qualify as adequate tests for cancer-causing activities.[4]

The biotransformation of trichloroethylene has been proposed to include the formation of intermediate products which might be mutagenic or carcinogenic, or both. Results of a mouse skin bioassay conducted by Van Duuren and co-workers at the New York University Institute of Environmental Medicine indicate that trichloroethylene epoxide, a probable metabolite of trichloroethylene, is carcinogenic.( ) Strong presumptive evidence exists that the highly reactive trichloroethylene epoxide is produced during the biotransformation of trichloroethylene and that this metabolite is likely responsible for the carcinogenic and mutagenic activity of trichloroethylene.( )

Several positive mutagenic tests and malignant transformation of cultured cells have also been reported. With addition of metabolic activation, trichloroethylene has been shown to be mutagenic in bacteria (Salmonella typhimurium and E. Coli) in yeast, and in Tradescantia.( )

A study by Price et al. (1978)( ) demonstrated in vitro carcinogenesis by trichloroethylene. Malignant transformation of mammalian cells was observed.

TERATOGENICITY

The teratogenicity of trichloroethylene has not been established. Trichloroethylene readily crosses the placenta, and has been demonstrated to accumulate in fetuses of sheep and goats.( ) Further research is needed to assess the teratogenic potential of trichloroethylene, especially since suggested evidence from animal and human studies indicates that trichloroethylene may contribute to abnormal fetal development as well as adverse reproductive effects.( )

EPIDEMIOLOGY

Epidemiology studies in Finland and Sweden did not find any association of trichloroethylene in cancer. However, the investigators cautioned against ruling out carcinogenicity as the sensitivity of the studies is low and the observation period is short.( )

In a recent special occupational hazard review of trichloroethylene, the National Institute of Occupational Safety and Health (NIOSH) concluded that trichloroethylene has a carcinogenic potential in the workplace, but it is not considered to be a "potent carcinogen". NIOSH made several control recommendations and considered the substitution of other organochlorine solvents for trichloroethylene unwise as these also exhibit health and environmental hazards.( )

EFFECTS ON ANIMALS AND HUMANS

While the issue of carcinogenicity is the most critical concern, other toxicological effects should also be mentioned. The acute toxicity of trichloroethylene is well known and is mainly related to central nervous system (CNS) depression, cardiac arrhythmias, and dermal effects. Chronic effects, however, are not as well documented, although there is evidence for the occurrence of latent adverse effects including damage to the liver, kidneys, and nervous system. Toxic effects have been reported in laboratory animal studies as well as in workers chronically exposed to levels of trichloroethylene around 100 ppm.( )

The literature on the toxicity of trichloroethylene has been reviewed earlier by various investigators.( ) A number of recent reviews have been presented which assess the toxic effects of trichloroethylene.( ) Much of the information on the toxicology and pharmacology of trichloroethylene has been derived from observations made in humans who are exposed occupationally, accidentally, and voluntarily--the latter to induce anesthesia or as a form of abusive inhalation. Symptoms most often described which can be readily explained by the anesthetic action of trichloroethylene include: headache, nausea, vomiting, dizziness, vertigo, fatigue, mental dullness, sleepiness, feeling of light-headedness, insomnia, and burning eyes. There are other neurologic

manifestations of humans exposed to trichloroethylene that include mental disorders,( ) cranial neuropathy,( ) peripheral neuropathy,( ) atrophic lesions of the brain,( ) and spinal cord.( )

For instance, trigeminal palsies have been reported, as have several cases of visual deterioration. These lesions have not been reproduced in animals inhaling trichloroethylene. However, considerable evidence has accumulated that indicates that dichloroacetylene is the likely neuropathy-causing agent in trichloroethylene exposures.( ) Reichert et al. 1975, by exposing mice to dichloroacetylene, demonstrated degenerative lesions in the brain considered parallel to those responsible for neurotoxic symptoms observed in man. The changes in the electroencephalogram in patients undergoing general anesthesia with trichloroethylene are indications of its depressant action.( ) The EEG and cortical potentials in animals show a depression of activity due to an effect on the synapses by trichloroethylene, similar to that elicited by other general anesthetic (References 211-217). Depressed nerve cell activity has been shown by reduction in high energy phosphate (218) and inhibition of a brain protease (219) in brains of mice exposed to trichloroethylene.

Alcohol intolerance is a well known and well characterized phenomenon among workers exposed to trichloroethylene. In addition to sensitivity to alcohol, a condition known as "degreasers flush" occurs.( ) Vasodilation of the superficial blood vessels of the skin resulting in skin blotches causes this condition. Stewart et al. (1974) studied the sensitivity to alcohol and "degreasers" flush in human volunteers and determined that these effects are sometimes present for several weeks after cessation of exposure to trichloroethylene. The blood vessels may show dilation as well as constriction, depending upon the organ, when there is an elevation of trichloroethylene in the body.( )

Skin effects have long been noted, principally as a localized reddening or flushing of the skin although exposure to trichloroethylene has been reported to cause generalized dermatitis, both of the exposed and non-exposed areas of the skin.( ) Some of this may be due to a hypersensitivity reaction.

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

PLEASE READ THE FOLLOWING QUESTIONAIRE THOROUGHLY AND CAREFULLY.

WRITE OR PRINT COMMENTS LEGIBLY, IN YOUR OWN WORDS, AND TO THE BEST OF YOUR KNOWLEDGE.

****
****

PLEASE NOTE ANY CHANGES IN NORMAL BODY FUNCTIONS (Listed under headings I-VII

DURING THE LAST YEAR, FOR ALL FAMILY MEMBERS LIVING IN YOUR HOUSEHOLD.

DO NOT INCLUDE BODY CHANGES EXPERIENCED DURING ANY OF THE FOLLOWING:

1)Stress, 2)Fatigue, 3)prescription drug use, 4)non-prescription drug use, Or 5) Currently existing medical condition or ailment.

I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines
I have experienced headaches, light-headedness, and a slight inebriation effect on those days when in my backyard the odor of TCE was noticed.

II EYES (Irritation,Vision Changes)
Slight blurred vision on days noted increased odor.

III NOSE (Irritation, Strange Odors)
Once or twice a week the odor of Trichloroethylene in my back yard is stronger and more noticeable than any chemicals or solvents I have worked with and around in my 6 years in College laboratories. (I am a former graduate clinical pharmacy student and currently a canidate for a graduate degree in Science Education)

IV HEART (Increase,Decrease,Irregular,Heartbeat)
None noticed.

V LUNGS (Increase,Decrease,Irregular,Breathing)
Sometimes experienced difficult breathing, air seemed to be "thick", with TCE almost strong enough to make one gag and choke.

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)
Slight nausea experienced if remaining outdoors for any length of time on days TCE odor was noticed.

VII SKIN (Irritation, Itching)

None noticed.

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache

Bayer Aspirin

Eye Preparations

None

Cold & Allergy

Robitussin-DM, Bayer Aspirin

Antacid

Digel

Laxative

None

Antidiarrheal

None

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes ___	no X
Cigarettes	yes ___	no X
Coffee	yes ___	no X

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12-12-79 Signature Robert Shepard

Name Robert Shepard

Address 435 S.E. Atwood

Corvallis, Oregon 97330

(I have lived at the above address, approximately 6 blocks from Evans Products, for the last year and 7 months.)

"THANK YOU FOR YOUR TIME"

I have for the past 6 years studied drugs and chemicals, their effects upon each other and especially upon biological units and systems. I have also extensively studied normal and abnormal (including drug and chemical induced) human physiology, and I emphatically state that I have experienced exposure to TCE (trichloroethylene) a formerly used General Inhalation Anesthetic, now being used as an Industrial Solvent.

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1)Stress, 2)Fatigue, 3)prescription drug use, 4)non-prescription drug use, Or 5) Currently existing medical condition or ailment.

I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

Headache

II EYES (Irritation,Vision Changes)

Irritation

III NOSE (Irritation, Strange Odors)

Bad odors

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache ✓

Eye Preparations ✓

Cold & Allergy ✓

Antacid ✓

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER: Alcohol yes ✓ no ____

Cigarettes yes ✓ no ____

Coffee yes ✓ no ____

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12/13/79 Signature R A McFarland

Name 565 Vera ave SE

Address Corvallis, Oregon

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

PLEASE READ THE FOLLOWING QUESTIONAIRE THOROUGHLY AND CAREFULLY.

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1)Stress, 2)Fatigue, 3)prescription drug use, 4)non-prescription drug use, Or 5) Currently existing medical condition or ailment.

I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

sinus headache at times

II EYES (Irritation,Vision Changes)

III NOSE (Irritation, Strange Odors)

strange odors

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache
aspirin

Eye Preparations

Cold & Allergy

Antacid

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER: Alcohol yes -- no ____
Cigarettes yes X no ____
Coffee yes X no ____

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12/12/74 Signature Winnifred McFarland

Name Winnifred McFarland
Address 565 SE View
Corvallis - OR 97330

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

PLEASE READ THE FOLLOWING QUESTIONAIRE THOROUGHLY AND CAREFULLY.

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

II EYES (Irritation,Vision Changes)

III NOSE (Irritation, Strange Odors)

I have lived at this address for six months. During this time I have frequently noticed strange odors.

IV HEART (Increase,Decrease,Irregular,Heartbeat)

I have also noticed occasional flutter, or irregularity of my heartbeat.

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

I have noticed increased gas.

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache None

Eye Preparations None

Cold & Allergy None

Antacid None

Laxative None

Antidiarrheal None

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes --	no ✓
Cigarettes	yes ___	no ✓
Coffee	yes ✓	no ___

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12/12/79 Signature Dawn T Zuschlag

Name Dawn Zuschlag

Address 625 S.E. Vera
Corvallis, Oregon 97330

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

PLEASE READ THE FOLLOWING QUESTIONAIRE THOROUGHLY AND CAREFULLY.

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

In the six months that I have lived at this address I have noticed an increase in feelings of drowsiness.

II EYES (Irritation,Vision Changes)

III NOSE (Irritation, Strange Odors)

I have noticed strange odors, particularly at night.

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache occasional asprin

Eye Preparations None

Cold & Allergy None

Antacid None

Laxative None

Antidiarrheal None

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes --	no ✓
Cigarettes	yes ___	no ✓
Coffee	yes ✓	no ___

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12/12/74 Signature Raymond Zuschlag

Name Ray ZuschNag

Address 625 SE Vera
Corvallis, Ore. 97330

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

PLEASE READ THE FOLLOWING QUESTIONAIRE THOROUGHLY AND CAREFULLY.

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

HEADACHE - ESPECIALLY AFTER HAVING AS LITTLE 1 DRINK OF ALCOHAL. I HAVE NEVER HAD THAT PROBLEM BEFORE LIVING HERE.

FATIGUE - ALWAYS TIRED - SAW DR. IN EARLY 79

II EYES (Irritation,Vision Changes)

III NOSE (Irritation, Strange Odors)

SINCE LIVING HERE I HAVE HAD A BUILD-UP OF MUCUS IN MY SINUS THAT I HAVE NEVER HAD BEFORE IN MY LIFE

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

ACID

VII SKIN (Irritation, Itching)

FROM TIME TO TIME I DEVELOPE VERY DRY SKIN ON THE BACK OF MY HANDS TO THE POINT OF @ CALOUSES.

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache

ASPIRIN

Eye Preparations

Cold & Allergy

CONTACT

Antacid

SODIUM-BICARBONATE

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER:			
Alcohol	yes --	no VERY LITTLE
Cigarettes	yes ____	no ✓
Coffee	yes ✓	no ____

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date DEC 13-79 Signature Marvin J. Marcotte

Name MARVIN MARCOTTE

Address 685 S.E. VERA

CORVALLIS, OREGON

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

PLEASE READ THE FOLLOWING QUESTIONAIRE THOROUGHLY AND CAREFULLY.

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

HEADACHE - 4 TO 5 DAY AT A TIME, DIZZINESS U

II EYES (Irritation,Vision Changes)

IRRITATION, EYES SWELLEN-UP AND HURT

III NOSE (Irritation, Strange Odors)

STRANGE ODORS
SYMPTON LIKE HEY FEAVER

IV HEART (Increase,Decrease,Irregular,Heartbeat)

I SAW A DR IN AUG 78 FOR IRREGULAR HEARTBEAT

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

VII SKIN (Irritation, Itching)

VERY VERY DRY SKIN, TO THE POINT OF BEING AWFUL
LOTION DOES NOT HELP

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache
ASPIRIN

Eye Preparations

Cold & Allergy

Antacid

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes --	no ✓
Cigarettes	yes ___	no ✓
Coffee	yes ___	no ✓

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date DEC 13 79 Signature Pam J. Marcotte
FOR BONNI MARCOTTE
PER PHONE CONVERSATION
BONNI IS NOW IN IDAHO

Name BONNI MARCOTTE

Address 685 S.E. VERA
CORVALLIS OREGON

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

II EYES (Irritation,Vision Changes)
Frequent eye irritation

III NOSE (Irritation, Strange Odors)
Frequently nose irritation

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache

Eye Preparations

Cold & Allergy

Antacid

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes --	no X
Cigarettes	yes ___	no X
Coffee	yes ___	no X

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12/12/79 Signature Ruth Anne Kohlmeyer

Name Ruth Anne Kohlmeyer

Address 560 SE Vera

Corvallis, OR 97330

"THANK YOU FOR YOUR TIME"

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

II EYES (Irritation,Vision Changes)

YES

III NOSE (Irritation, Strange Odors)

YES

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

YES

VII SKIN (Irritation, Itching)

YES

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache

Eye Preparations

Cold & Allergy

Antacid Maalox once a day

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes ___	no ✓
Cigarettes	yes ___	no ✓
Coffee	yes ___	no ✓

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12/17/79 Signature Aileen Devitt

Name Aileen Devitt

Address 690 S.E. Chester Ave.
Corvallis, Ore. 97330

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

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1)Stress, 2)Fatigue, 3)prescription drug use, 4)non-prescription drug use, Or 5) Currently existing medical condition or ailment.

I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines
yes

II EYES (Irritation,Vision Changes)

III NOSE (Irritation, Strange Odors) yes

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting) yes

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache Aspirin

Eye Preparations Eye wash

Cold & Allergy

Antacid yes

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes --	no ✓
Cigarettes	yes ✓	no ___
Coffee	yes ✓	no ___

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12th Signature Wm O. Ireland

Name Wm O. Ireland

Address 1350 S.E. Vica way
Roseburg Oregon

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

PLEASE READ THE FOLLOWING QUESTIONAIRE THOROUGHLY AND CAREFULLY.

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

II EYES (Irritation,Vision Changes)

III NOSE (Irritation, Strange Odors)

I have had some allergies in the past, but since moving to this Neighborhood my allergies & sinus problems have increased to the point where I have had to seek medical advice & treatment. (I have lived here for two years)

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

I experience occasional lung congestion that I hadn't had problems with before moving to this neighborhood

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache

Eye Preparations

Cold & Allergy - Nose drops

Antacid

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes X	no ____
Cigarettes	yes ____	no X
Coffee	yes X	no ____

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12-12-94 Signature Raymond W Brassfield

Name Raymond W Brassfield

Address 1425 SE Vico Way

Corvallis, Oregon

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

PLEASE READ THE FOLLOWING QUESTIONAIRE THOROUGHLY AND CAREFULLY.

WRITE OR PRINT COMMENTS LEGIBLY, IN YOUR OWN WORDS, AND TO THE BEST OF YOUR KNOWLEDGE.

****
****

PLEASE NOTE ANY CHANGES IN NORMAL BODY FUNCTIONS (Listed under headings I-VII

DURING THE LAST YEAR, FOR ALL FAMILY MEMBERS LIVING IN YOUR HOUSEHOLD.

DO NOT INCLUDE BODY CHANGES EXPERIENCED DURING ANY OF THE FOLLOWING:

1)Stress, 2)Fatigue, 3)prescription drug use, 4)non-prescription drug use, Or 5) Currently existing medical condition or ailment.

I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

II EYES (Irritation,Vision Changes) yes

III NOSE (Irritation, Strange Odors) yes

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing) yes

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache yes

Eye Preparations yes

Cold & Allergy

Antacid yes

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes ___	no 1
Cigarettes	yes ___	no 1
Coffee	yes ___	no 1

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12-12-79 Signature [signature]

Name _____

Address 520 S [illegible]

"THANK YOU FOR YOUR TIME"

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

II EYES (Irritation,Vision Changes)

III NOSE (Irritation, Strange Odors)

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache

Eye Preparations

Cold & Allergy

Antacid

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER: Alcohol yes -1- no V

Cigarettes yes ___ no V

Coffee yes ___ no Decaf.

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date Dec 12 '74 Signature R A Price

Name _____

Address 594 S.E. Viola Ave
Corvallis, Oregon 97330

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

Headache & Light Headedness

II EYES (Irritation,Vision Changes)

III NOSE (Irritation, Strange Odors) Irritation of nose

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache ✓

Eye Preparations

Cold & Allergy

Antacid

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER: Alcohol yes ___ no ✓

Cigarettes yes ___ no ✓

Coffee yes ___ no Decaf

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date Dec 17-74 Signature _____

Mrs
Name O.R. Lee

Address 590 S E Chester Ave
Corvallis Oregon 97330

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

exceptional amount of headaches by all members of family including children

II EYES (Irritation,Vision Changes)

eye irritation, no vision changes noted

III NOSE (Irritation, Strange Odors)

some nose irritation, strong odor, such as burning plastic, particularly during the summer months when doors & windows are open

IV HEART (Increase,Decrease,Irregular,Heartbeat)

no

V LUNGS (Increase,Decrease,Irregular,Breathing)

not noted

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

yes

VII SKIN (Irritation, Itching)

yes

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache

Eye Preparations

Cold & Allergy

Antacid

Laxative

Antidiarrheal

none frequently or commonly used

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes --	no X
Cigarettes	yes X	no ___
Coffee	yes ___	no X

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12/12/79 Signature Judy Evans

Name Judy Evans

Address 550 S.E. Chester Ave
Corvallis, Ore 97330

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

yes

II EYES (Irritation,Vision Changes)

III NOSE (Irritation, Strange Odors)

yes

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

yes

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

yes

VII SKIN (Irritation, Itching)

no

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache Tylen

Eye Preparations none

Cold & Allergy none

Antacid maalox

Laxative none

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER: Alcohol yes -- no ✓

Cigarettes yes ✓ no ___

Coffee yes ✓ no ___

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12/12/79 Signature Don R Evans

Name Don R Evans

Address 550 SE Chester

Corvallis Ore 97330

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

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I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines

Headaches and light-headedness

II EYES (Irritation,Vision Changes)

Eye irritation constantly from fumes

III NOSE (Irritation, Strange Odors)

Nasty odors

IV HEART (Increase,Decrease,Irregular,Heartbeat)

unknown

V LUNGS (Increase,Decrease,Irregular,Breathing)

no

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting)

Slight nausea for husband

VII SKIN (Irritation, Itching)

Itching on occasion

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache

Eye Preparations

Cold & Allergy

Antacid

Laxative

Antidiarrheal

NOTE USE BY ANY HOUSEHOLD MEMBER: Alcohol yes -- no ____

Cigarettes yes ____ no ____

Coffee yes X no ____

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date _____ Signature Allyn Hunsaker

Name Allyn Hunsaker

Address 545 S.E Vera
Corvallis, ORE

"THANK YOU FOR YOUR TIME"

ATTENTION : YOUR FAMILIES HEALTH MAY BE IN DANGER.

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1)Stress, 2)Fatigue, 3)prescription drug use, 4)non-prescription drug use, Or 5) Currently existing medical condition or ailment.

I HEAD (Headache,Light-Headedness,Dull Thinking,Lack-of-Coordination,Clumsines
yes

II EYES (Irritation,Vision Changes)

III NOSE (Irritation, Strange Odors)

IV HEART (Increase,Decrease,Irregular,Heartbeat)

V LUNGS (Increase,Decrease,Irregular,Breathing)

VI STOMACH (Acid,Gas,Upset,Nausea,Vomiting) yes

VII SKIN (Irritation, Itching)

PLEASE LIST FREQUENTLY OR COMMONLY USED NON-PRESCRIPTION PRODUCTS:

Pain & Headache yes

Eye Preparations

Cold & Allergy

Antacid

Laxative

Antidiarrheal yes

NOTE USE BY ANY HOUSEHOLD MEMBER:

Alcohol	yes ___	no ✓
Cigarettes	yes ___	no ✓
Coffee	yes ✓	no ___

FATIGUE

I do hereby signify with my signature, that the above information is true and correct to the best of my knowledge,

Date 12/2/11 Signature Noreen Worsley

Name Noreen Worsley

Address 585 SE Vera Ave

Corvallis, OR 97330

"THANK YOU FOR YOUR TIME"

535 SE Atwood
Corvallis, OR 97330
13 December 1979

Friends of Benton County
City Council of Corvallis

Dear sirs:

Recent reports of T.C.E. emissions from the Evan's ~~products~~ plant near my home are ~~are~~ of great concern to me. I have lived in the immediate area of the Evan's plant since moving here over one year ago with my 2 year old son. I teach science at the high school level in Junction City.

During the last spring, summer, and fall I have made a habit of jogging several times a week, either at the O.S.U. track or around my neighborhood (Atwood → Bridgeway → Vera → Crystal Lake → Alexander → Bethel → Atwood = 2 miles). I have noticed a marked difference between

the air quality of the two areas. Many times I have noticed a sickly, sweet smell in our neighborhood, often enough to force us quickly into the house. After jogging when this smell was evident, my lungs and nose burned. I have had a noted increase in headaches and fatigue. I am very worried about the possible long term effects to myself and my child.

Evans is currently exceeding allowable emissions of T.C.E., against the public interest. I strongly encourage a denial of a permit to Evans to emit T.C.E. above allowable, recommended limits, at least until more is known of the health risks and carcinogenic properties of this chemical.

As a large industry in our community, Evans must

be conscientious about their public responsibility not only to the local economy but also the public health and environmental quality. Such a company should <u>voluntarily</u> comply with laws made for the public good as responsible members of our community.

Having a "dirty" industry in our neighborhood not only threatens our health and environment but also our property values.

I would like to encourage enforcement of existing air quality standards and <u>increased</u> monitoring of Evan's emissions based on their poor history of cooperation (operating in violation of T.C.E. emissions).

Sincerely,

Paula Minear

470 SE Atwood
Corvallis, OR. 97330
December 12, 1979

Friends of Benton County:

I would like to express my concern over the emissions of T.C.E. by the Evans plant on SE Crystal Lake Drive. I have noticed the unpleasant smell for some time, but did not become too concerned until this fall when it seemed to become more noticeable and I began to experience physical discomfort. One week, around the last of September, was particularly bad and prompted me finally to call the DEQ to complain about the air quality in our neighborhood. During that week a neighbor & I jogged in the vicinity of our homes & the

plant (Atwood, Bridgeway, Crystal Lake Drive, Bethel). We ran through pockets of air where the conditions were intolerable. After one such "run" I experienced watery & itchy eyes; a burning sensation in my nose & throat; and a tightness, nearly nauseous, in my chest and abdomen for about two hours.

My purpose in writing this letter is to express my strong concern over the possible health dangers involved with these emissions; not only the immediate symptoms as described above, but the long term effects. I strongly urge a delay in granting a permit for these emissions until further study can be done.

Sincerely,
Kristine Spikes

14 December 1979

TO: Environmental Quality Commission

FROM: Friends of Benton County, 7610 NE Pettibone, Corvallis, Or. 97330

SUBJECT: Air Contaminant Discharge Permit for Evans Products Company

I am Charles A. Boyle speaking on behalf of the Friends of Benton County. You received a copy of our petition and request for a delay in issuing the Air Contaminent Discharge Permit to Evans Products for their Battery Separator Plant in Corvallis.

Our concern is for the public's health and the risks involved by the release of large amounts of toxic trichloroethylene (TCE) from a plant located near a residentual area. We agree with DEQ and Evans Products that it is the levels of TCE in the outside air that is important. DEQ's judgment that the health of nearby citizens would be protected was based upon 12 air samples taken on 2 November 1979 from 6 sites in south Corvallis. We feel that there was insufficient data to support their conclusion.

BACKGROUND

During the past several years, Evans Products developed a new process for making plastic battery separators. The process involved using TCE as an industrial solvent. In late 1978, Evans began full scale production in direct violation of state statutes. On 13 February 1979, DEQ received an anonymous note stating that 300 to 500 gallons of TCE a day was being lost by Evans Products. No investigation or action was taken by DEQ. In April 1979, DEQ accidently discovered the illegal process while investigating another violation by Evans Products. In May, Evans Products was issued a Notice of Violation. Evans notified DEQ in writing using a "Notice of Construction" form and was granted a temporary permit. No civil penalty was levied against Evans Products.

RAW MATERIALS

The following is a list of raw materials and the approximate smount used annually;

1.	Amorphous silica	2,000,000 pounds
2.	Polyethylene powder-pellets	925,000 pounds
3.	Oil, rubber extender type	150,000 gallons
4.	TCE, industrial solvent	95,000 gallons

PROCESS

A plastic sheet is made from the silica and polyethylene which is impregnated with oil. The thin sheet of plastic passes through a tank containing liquid TCE to remove the oil which makes the plastic porous. The plastic sheet passes into a drying oven to remove the TCE. The plastic is then cut into small pieces and boxed for shipment.

POLLUTION CONTROL "HIGHEST AND BEST PRACTICABLE"

The waste air from the tank containing the liquid TCE and the surrounding work area passes over a chilled condensor system and on to a activated carbon bed to remove the TCE vapor before venting to the outside air. DEQ required 2 expensive source tests of this equipment. During the first test, it was discovered that the carbon beds were loading up with TCE and releasing large amounts of TCE. The cycle time for cleaning the beds with steam was shortened and a second test was conducted. It showed that 10 pounds an hour, 240 pounds a day, of TCE was being released. This is a 95% efficiency from that source.

This one source provides the basis for issuing the permit. A computer model of this source showed a 24 hour average of 15 parts per billion of TCE at a distance of 120 meters from the plant decaying to 2 parts per billion at a distance of 480 meters. It was also found that the concentration of TCE in the plume downwash from the present stack could reach as high as 18 ppm for short durations of 3 to 10 minutes.

Three weeks before the public hearing in Corvallis on 28 November 1979, DEQ discovered a second source of emission from the drying oven which was not connected to the pollution control equipment. DEQ estimated that 80 gallons or almost 1000 pounds of TCE a day were being lost from this exhaust. It will be connected to pollution control equipment, however the draft of the proposed permit presented on 28 November 1979 makes no mention of this source of emission.

At the public hearing, DEQ stated the 100,000 pounds of TCE ~~was~~ were being lost a month and that Evans Products was operating on a 5 day work week. DEQ's estimate of the loss was 600 tons a year. However; in the 10 December 1979 issue of the Corvallis Gazette-Times, An official of Evans Products said the measured consumption of TCE was 720 tons a year.

DAILY LOSS

The following is a summary of the daily loss of TCE based upon DEQ's figure of 100,000 pounds per month and Evan's measured consumption of 720 tons a year;

	DEQ-Loss of 5000 pounds a day	Evans-Loss of 6000 pounds a day
1. From carbon beds:	240 pounds (5%)	240 pounds (4%)
2. Lost through water:	22 pounds	22 pounds
3. Estimated from drying oven:	976 pounds	976 pounds
4. Other fugitive emissions	3762 pounds	4762 pounds
5. Total daily loss	5000 pounds	6000 pounds

The present daily loss during each work day is 2½ to 3 tons of TCE. When the loss from the drying oven is connected to pollution control equipment, the daily loss will still be 2 to 2½ tons a day.

TRICHLOROETHYLENE (TCE)

TCE is a clear, colorless, volatile liquid that is heavier than water and will not dissolve in water. As a vapor, TCE is almost 4 times heavier than air. It is a toxic, hazardous substance, a mutagen, and a potential cause of cancer in humans.

Current U.S. standard for workers exposure is 100 ppm.. Most other countries, having assessed the toxicity of TCE, have established much lower limits to as low as 2 ppm. There is no standard for public exposure. However; in a Health Effect Summary Document received from EPA, the following comment is made, "Considering the currently available laboratory evidence of its carcinogenic potential minimizing all human exposure to trichloroethylene is considered important."

REASONS FOR A DELAY IN ISSUING PERMIT

1. The large amounts of TCE, 2½ to 3 tons, being emitted each working day.
2. TCE is toxic, a mutagen, and a potential cause of cancer in man.
3. The plant's location near a residential area.
4. The permit addresses on 4 to 5% of the total TCE emissions.
5. The permit establishes a precedent allowing a company to start a process without a permit, in violation of state statutes, without penalty.
6. The second stack from the drying ovens was discovered just 3 weeks prior to the public hearing.

7. DEQ estimates of public exposure were based upon 4 to 5% of total daily emissions. Informal inquiry and rough calculations by several meteorologists and air pollution experts indicate that 2 to 9 ppm of TCE or higher could be in the air downwind of the plant for as far as ½ mile under worst case conditions.

8. No tests have been conducted of nearby residents for possible exposure to TCE. Many have complained of symptoms similiar to those caused by TCE exposure.

9. A thorough materials balance has not been completed which would account for loss of the fugitive emissions.

10. The token ambient air test consisting of 12 samples taken on 2 November was inadequate. Evans Products was notified prior to the testing and no consideration was given to prior weather conditions. The six sampling sites were generally upwind of the plant. The levels of TCE found in the air were less than those based upon the computor model which addressed less than 5% of the toal emissions. The air mass required to contain one days emission of TCE to a level of 2 ppb would cover 100 square miles to a depth of 2978 feet. DEQ's measurements more closely approximate the background levels of TCE rather than the amounts which can reasonably be expected downwind of the plant under stable weather conditions.

Under extremely stable weather conditions TCE could flow down, like water, toward the Willamette river. It could be trapped in the narrow confines of the river and build up to fairly high concentrations in the air.

A slight, .5 to 1 mph, wind moving across the plant could pick up fairly high concentraions of TCE and carry it downwind into the residentual area.

11. DEQ did not account for the use of 150,000 gallons of oil a year. Could it be contaminated with TCE and how is it being disposed of?

AIR, WATER, AND NOISE POLLUTION BY EVANS PRODUCTS

The Department of Environmental Quality is responsible for the enforcement of laws relating to air, water and noise pollution. The Department is aware of the following violations by Evans Products in Corvallis;

1. Exceeding the limitations of their NPDES waste water discharge permit. During the period from September 1977 through September 1979, they exceeded the limits of their permit 18 of 25 months or 72% of the time.
2. Unauthorized water discharge into public waters. In addition; the permit states, "The diversion or bypass of any discharge from facilities utilized by the permittee to maintain compliance with the terms and conditions of this permit is prohibited."
3. Exceeding noise source standards. This has occured since May 1979.
4. Permitting wood dust and fiberglass to be deposited on the real property of another person. Their permit states "Particulate matter which is larger than 250 microns and which may be deposited upon the real property of another person shall not be emitted." This has been occuring for several years.
5. Emitting Air pollutants from a new process without an air contaminant discharge permit. This was the process involving TCE.

The total civil penalty which DEQ has levied against Evans Products for these violations has been 150 dollars.

The Friends of Benton County feel that the credibility of the whole pollution control program has been lowered. We are very skeptical of DEQ and their ability to enforce the permit involving TCE.

DEQ's handling and investigation of the process involving TCE is hard to comprehend. The only way it makes sense is if it is viewed from the point of view of Evans Products. DEQ was more interested in the health of Evans Products than in the Public's Health.

The Corvallis City council as well as hundreds of citizens ask that you delay issuing the permit until such time that sufficient data has been gathered and a thorough evaluation show that the public health will not be endangered by the release of large amounts of TCE.

Charles A. Boyle
Board Member
Friends of Benton County

FOR YOUR INFORMATION—

YOU SHOULD CHECK D.E.Q. PERMITS
FOR EVANS PRODUCTS
SUBMICRO PLANT
WATER AND TCE (TRICHLOROETHYLENE)
WATER IS BEING DISCHARGED INTO
DRAIN BETWEEN PLANTS
TCE INTO AIR - LARGE AMOUNTS
300 - 500 GALS./DAY
SOME EMPLOYEES HAVE PASSED OUT
FROM FUMES

received 2-13-79

2/22/79

Grace - This was given to Inga on the sly. Salem will look into it & I'll respond to Inga

Fritz

(OVER)

Evans battery operation polluting without permit, says DEQ official

By Kevin Miller
Of The Gazette-Times

26 April 79

The regional director of the state Department of Environmental Quality says Evans Products Co. has been emitting air pollutants from a new process at its battery separator plant in south Corvallis without an air contaminant discharge permit.

John Borden, a department official with jurisdiction in Corvallis, said the pollutant discharge was discovered recently during a routine invesigation of the Evans plant.

He has referred the charges to the department's investigation and compliance division.

Piotr Zenczak, president of Evans' Corvallis division, said this morning that Evans did not seek a pollution permit for the process because "we didn't think we needed a permit."

"It is our position that there are no emissions," said Zenczak. "Now they say we need a permit, so we'll get a permit."

Borden said Ted Groszkiewicz, an environmental department official, was conducting a routine investigation of a report of possible water pollution from the Evans plant when he saw what appeared to be a new building on the property. The building was actually an older building on the south side of Crystal Lake Drive which had been connected to Evans' new warehouse, built in late 1978.

Zenzcak acknowledged this morning that Evans is using a new process to make battery separators in the old building. Groszkiewicz and Borden said the department had not been notified, as required by department rules, of Evans' plans to expand or make major modifications to the battery separator plant. Such notification is required to give the department a chance to ensure that any new process will comply with pollution regulations.

"It looks like the emissions are primarily air pollutants," Borden said this morning. "They apparently come from a solvent used in the new battery-making process."

There's no way to tell the exact nature and amount of the emissions until the department makes a more extensive investigation, according to both Borden and Groszkiewicz.

Zenczak said a solvent recovery unit in the building recovers the fumes from the new process. Groszkiewicz acknowledged that Evans has "very sophisticated" anti-pollution equipment on the plant.

Borden said the apparent sophistication of the anti-pollution system is part of the reason he hasn't ordered Evans to halt operation of the battery-separator process until the company gets a permit.

He said Evans will be required to apply for a permit, and there is a possibility of civil penalties or fines. Whether there will be civil penalties or fines, he said, will partly depend on how much pollution the un-permitted process has emitted so far.

It will be "a matter of weeks, but not a month," before the investigation is done and the department decides what to ask of Evans, Borden said.

There has been some confusion over whether Evans has violated the building permit for the new warehouse by using it as a manufacturing area. Ralph Overbay, city building inspector, said this morning that he visited the plant Tuesday and is confident that Evans is using the new building only as a warehouse, and not as a manufacturing area.

Benton group petitions t

or delay in Evans' permit

By Ronald J. Schleyer
Of The Gazette-Times

10 Dec. '79

Pointing out that Evans Products Co. is emitting toxic trichloroethylene (TCE) from its southeast Corvallis plant in much greater amounts than previously thought, a land-use watchdog group has launched a petition campaign urging caution in authorizing the emissions.

Friends of Benton County is circulating the petition requesting delay of a pending state permit for Evans' TCE emissions in southeast Corvallis from its battery separator plant at 1115 S.E. Crystal Lake Drive.

The Corvallis group plans to submit the petition, with signatures now being collected, at Friday's state Environmental Quality Commission hearing in Portland. The commission controls the Department of Environmental Quality.

The Corvallis City Council already has agreed — at the request of the citizens group — to support a call for further study of TCE and public health. The Evans plant lies within the city.

Friends of Benton County asked the County Commission for similar support of its request last week. The commission has invited Evans Products to respond before it takes action, Chairman Barbara Ross said today.

In addition, the citizens group on Friday wrote a letter to the office of Gov. Vic Atiyeh — who is away on vacation — asking him to direct more rigorous examination of the permit request by the department, which has been analyzing the matter since last spring.

Neither the governor's office nor the environmental department had an official response this morning to the demands of Friends of Benton County, led by William C. Denison of Corvallis.

The environmental department on Nov. 28 conducted a hearing on whether to continue allowing emission of 43 tons a year of the widely used industrial chemical that has been shown to cause liver cancer in mice.

The tonnage of emitted TCE is important because it is the basis for calculating the resulting concentration in the air surrounding the plant during various kinds of weather.

Testimony at the Corvallis hearing established that the actual emission from Evans' plant is 600 tons a year — 14 times more than the estimate announced by the environmental department before the hearing.

And in an interview today, an Evans official said the measured consumption of TCE in the plant processes — which provides one of the best estimates of actual emission — is 720 tons a year.

The official, Bohuslav "Mike" Mikulka, a vice president of Evans, said he agrees with environmental department explanations at the hearing that the important thing is not total emission but TCE concentration in the air.

And Mikulka said the company has faith in the accuracy of environmental department measurements, also announced at the hearing, that TCE concentration does not exceed about 10 parts TCE per billion parts air.

Based on the 43-ton emission figure, the department had calculated that the battery separator plant would cause an average concentration of TCE in the surrounding air of about 2 or 3 parts per million.

Thus the actual TCE concentration, as measured by the environmental department on Nov. 2 at six locations surrounding the plant, was about 200 times less than the estimate provided by a computer simulation.

Although there is no legal limit on TCE allowable in the outside air, comparison has been made to the 100 parts per million allowed for continuous exposure inside factories.

If the state's measurements are correct, the outside air concentration of TCE in southeast Corvallis from Evans is 10,000 times less than the legally allowable exposure in the air workers breathe.

Nevertheless, Friends of Benton County, according to a member, Charles "Art" Boyle, is concerned that the verdict on public health danger from the plant is not in.

"This is not an anti-Evans petition," Boyle said this morning. "This is a pro-public-health petition. We want to make sure the air these people are breathing (surrounding the plant) is safe."

According to Boyle, the Nov. 2 measurements by the environmental department were insufficient to establish the actual concentration of TCE in the air.

In its letter to Atiyeh, the citizens group pointed out that the department's computer estimates of TCE concentration were based on the 43-ton-a-year emission rate, although Evans now admits 720 tons would be emitted.

In addition to a new, more rigorous analysis of the problem by the environmental deparment, the citizens group wants a medical study of people in the Evans neighborhood who have complained of feeling poorly since the TCE emissions began in 1978.

50 Tons/mo released
?% are released as fugitive
22 lbs/day to waters 600 lbs/mo - [illegible] water system

Permit Number: 02-2203
Expiration Date: 11/1/84

AIR CONTAMINANT DISCHARGE PERMIT

DRAFT

Department of Environmental Quality
522 Southwest Fifth, Portland, OR 97204
Mailing Address: Box 1760, Portland, OR 97207
Telephone: (503) 229-5696

Issued in accordance with the provisions of ORS 468.310

ISSUED TO:

Evans Products Company
Box "E"
Corvallis, OR 97330

INFORMATION RELIED UPON:

Application No. 1616

Date Received: June 8, 1979

PLANT SITE:

1115 Southeast Crystal Lake Drive
Corvallis, OR 97330

ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY

WILLIAM H. YOUNG, Director

Dated

Source(s) Permitted to Discharge Air Contaminants:

Name of Air Contaminant Source	Standard Industry Code as Listed
Battery Separator Manufacturing (Submicro Process)	2599

Permitted Activities

Until such time as this permit expires or is modified or revoked, the permittee is herewith allowed to discharge exhaust gases containing air contaminants including emissions from those processes and activities directly related or associated thereto in accordance with the requirements, limitations and conditions of this permit from the air contaminant source(s) listed above.

The specific listing of requirements, limitations and conditions contained herein does not relieve the permittee from complying with all other rules and standards of the Department.

Performance Standards and Emission Limits

1. The permittee shall at all times maintain and operate all air contaminant generating processes and all contaminant control equipment at full efficiency and effectiveness, such that the emissions of air contaminants are kept at the lowest practicable levels.

2. Particulate emissions from any single air contaminant source shall not exceed any of the following:

   a. 0.1 grains per standard cubic foot.
   b. An opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour.
   c. Particulate matter which is larger than 250 microns and which may be deposited upon the real property of another person shall not be emitted.

3. Trichloroethylene emissions from the carbon bed adsorption units shall not exceed a total of 10 pounds per hour, based on a minimum acceptable removal efficiency of 95 percent.

4. The permittee shall not allow the emission of odorous matter as measured off the permittee's property in excess of:

   a. A scentometer no. 0 odor strength or equivalent dilution in residential and commercial areas.

   b. A scentometer no. 2 odor strength or equivalent dilution in all other land use areas.

   A violation of Condition a or b shall have occurred when two measurements made by the Department within a period of one hour, separated by at least 15 minutes exceed the limits.

Compliance Demonstration Schedule

5. In the event the Permittee is unable to comply with the emission limits established in Condition 3, an alternative emission control strategy and time schedule shall be submitted to the Department within 30 days of the determiniation of noncompliance.

Monitoring and Reporting

6. The permittee shall effectively inspect and monitor the operation and maintenance of the plant and associated air contaminant control facilities. A record of all such data shall be maintained for a period of three years and be available at the plant site at all times for inspection by the authorized representatives of the Department. At least the following shall be monitored and recorded at the indicated interval. The data for Conditions a, b, and c shall be submitted to the Department of no later than the 15th day of the month following the month of record.

	Parameter	Minimum Monitoring Frequency
a.	The amount of trichloroethylene used.	Monthly

b.	A description of any maintenance to the air contaminant control systems.	As performed
c.	The results of source tests required by Condition 7.	As performed
d.	Inspection of all trichloroethylene process, conveying, refining, control and storage systems for physical integrity and any incident, malfunction, leakage or operator error resulting in a potential, uncontrolled release of trichloroethylene. (Note: Unset reporting is required by Condition G5.)	Daily

7. The permittee shall conduct a minimum of three source tests per year, separated by 4 month intervals, to demonstrate compliance with Condition 3 and to verify the collection efficiency of the adsorption units. A source test shall also be conducted following any repairs or modifications to the units that could affect trichloroethylene emissions.

8. The permittee shall report to the Department by January 15 of each year this permit is in effect the following information for the preceding calendar year.

   a. Plant production on a monthly basis.

Fee Schedule

9. The Annual Compliance Determination Fee for this permit is due on October 1 of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

General Conditions and Disclaimers

G1. The permittee shall allow Department of Environmental Quality representatives access to the plant site and pertinent records at all reasonable times for the purposes of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emission discharge records and otherwise conducting all necessary functions related to this permit.

G2. The permittee is prohibited from conducting open burning except as may be allowed by OAR Chapter 340, Sections 23-025 through 23-050.

G3. The permittee shall:

   a. Notify the Department in writing using a Departmental "Notice of Construction" form, and

   b. Obtain written approval.

   before:

a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment, or

b. Modifying or altering an existing source that may significantly affect the emission of air contaminants.

G4. The permittee shall notify the Department at least 24 hours in advance of any planned shutdown of air pollution control equipment for scheduled maintenance that may cause a violation of applicable standards.

G5. The permittee shall notify the Department by telephone or in person within one (1) hour of any malfunction of air pollution control equipment or other upset condition that may cause a violation of the applicable standards. Such notice shall include the nature and quantity of the increased emissions that have occurred and the expected duration of the breakdown.

G6. The permittee shall at all times conduct dust suppression measures to meet the requirements set forth in "Fugitive Emissions" and "Nuisance Conditions" in OAR Chapter 340, Sections 21-050 through 21-060.

G7. Application for a modification of this permit must be submitted not less than 60 days prior to the source modification. A Filing Fee and an Application Processing Fee must be submitted with an application for the permit modification.

G8. Application for renewal of this permit must be submitted not less than 60 days prior to the permit expiration date. A Filing Fee and an Annual Compliance Determination Fee must be submitted with the application for the permit renewal.

G9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

G10. This permit is subject to revocation for cause as provided by law.

G11. Notice provision: Section 113(d)(1)(E) of the Federal Clean Air Act, as amended in 1977, requires that a major stationary source, as defined in that act, be notified herein that "it will be required to pay a noncompliance penalty under Section 120 (of that act) or by such later date as is set forth in the order (i.e., in this permit) in accordance with Section 120 in the event that such source fails to achieve final compliance by July 1, 1979."

Department of Environmental Quality

522 SOUTHWEST 5TH AVE. PORTLAND, OREGON

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

Willamette Valley Region
1095 25th S.E.
Salem, OR 97310

Victor Atiyeh
Governor

Prepared: October 22, 1979
Hearing: November 28, 1979

NOTICE OF PUBLIC HEARING

A CHANCE TO BE HEARD ABOUT

The Provisions of a Proposed Air Contaminant Discharge Permit for the Evans Products Submicroporous Battery Separator Plant.

The Department of Environmental Quality is proposing to issue an Air Contaminant Discharge Permit to Evans Products Company for their Submicroporous Battery Separator Plant located at 1115 S.E. Crystal Lake Drive in Corvallis, Oregon. The proposed permit would be effective for five years. A hearing for this matter will be held at the 1st Presbyterian Church, 114 S.W. 8th, Corvallis, at 7:00 p.m. on November 28, 1979.

WHAT IS DEQ PROPOSING?

Interested parties should request a copy of the staff report package. The major aspects of the proposed permit are:

1. An efficiency requirement of 95% on the activated carbon adsorption beds;

2. Three times per year source testing of activated carbon bed emissions for trichloroethylene; and

3. Limitations on particulate emissions from the plant.

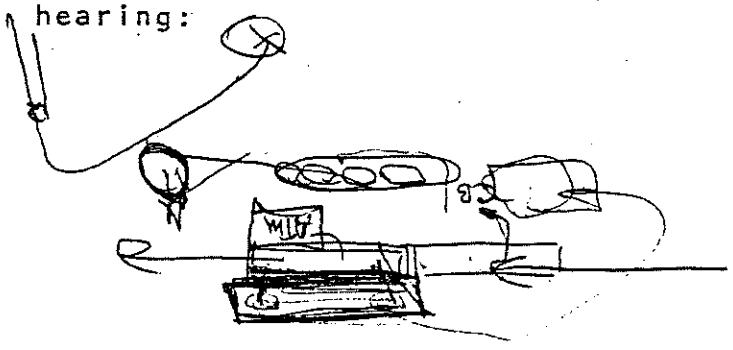
WHO IS AFFECTED BY THE PROPOSED PERMIT?

Persons living in the Corvallis area.

HOW TO PROVIDE YOUR INFORMATION

Written comments should be sent to the Department of Environmental Quality, Willamette Valley Region, 1095 25th St. S.E., Salem, Oregon 97310, and should be received by November 30, 1979.

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



Hearing plan

City	Time	Date	Location
Corvallis	7:00 p.m.	November 28, 1979	1st Presbyterian Church 114 S.W. 8th

WHERE TO OBTAIN ADDITIONAL INFORMATION

Copies of the staff report package may be obtained from:

Department of Environmental Quality
Willamette Valley Region
1095 25th St. S.E.
Salem, Oregon 97310

LEGAL REFERENCE FOR THIS PROPOSAL

This permit is proposed under the authority of ORS 468.310.

FURTHER PROCEEDINGS

After the public hearing, testimony will be evaluated and necessary changes to the proposed permit will be made. The Director will then issue an Air Contaminant Discharge Permit.

using 90,000#/month 45 Tons/month x12 = 540 Tons/yr. 1,080,000#/yr
7377 gal/month 88,524 gal/yr.

Permit 43 Tons/

10#/hr 240#/day 7200#/month 86,400# yr /43.2T/yr 8%
.82gal 19.7gal 590 gal 708 gal.

unaccounted for:
540 Tons used - 43.2 Tons = 496.8 Tons 92%
993,600#

9.3 gal/hr 113#/hr 81,443 gal
223 gal/day 2722#/day
6690 gal/month 82,800/month
81,443 gal/yr. 993,600# yr.

Department of Environmental Quality
522 S.W. 5th AVENUE, P.O. BOX 1760, PORTLAND, OREGON 97207

Willamette Valley Region
1095 25th St. S.E.
Salem, OR 97310

Victor Atiyeh
Governor

TO: Director

FROM: John E. Borden

SUBJECT: Evans Products Company, Submicroporous Battery Separator Plant, Proposed Air Contaminant Discharge Permit, Staff Report.

BACKGROUND

The Department proposes to issue the attached Air Contaminant Discharge Permit to the Evans Products Company for a Submicroporous Battery Separator Plant located at 1115 S.E. Crystal Lake Drive in Corvallis. The existence of the Submicroporous Battery Separator Plant was discovered by the Department in April of 1979. It had been constructed without receiving prior construction approval and without the Company first obtaining an Air Contaminant Discharge Permit. For violations of state statutes and administrative rules, Evans Products Company was issued a Notice of Violation and Intent to Assess Civil Penalty by the Department on May 23, 1979.

Subsequent to the Department's enforcement action, Evans Products Company submitted a Notice of Construction and an application for an Air Contaminant Discharge Permit. A review of the Company's engineering plans for the plant showed two sources of potential air contaminant emissions:

1. Polyethylene and silica powder handling practices.

2. Trichloroethylene vapor from the submicroporous battery separator process lines.

An evaluation of the pollution control equipment in place for dust control at the submicroporous battery separator plant showed adequate control devices to be in place (baghouses). The Department had had no prior exposure to industrial scale control of

trichloroethylene (TCE) vapor emissions. A review of current literature on the compound was conducted. The following section is a brief and non-technical explanation of the results of that review. (Most of the Biological Effects review is from a 1978 NIOSH paper by Norbert Page and Jack Arthur.)

Trichloroethylene (TCE) is, in pure form, a colorless liquid which evaporates readily at room temperature. Vapors of TCE have a sweet odor like similar compounds such as chloroform, carbon tetrachloride, methylene chloride and perchloroethylene. TCE belongs to a class of chemical compounds known as volatile (evaporates at room temperature) organic compounds. TCE is very important to the industrialized world.

Since World War II, trichloroethylene has been produced in vast quantities by major chemical manufacturers worldwide. TCE's major uses are in the metal degreasing and drycleaning industries. A few other uses are in extraction processes, as chemical feedstock, as solvent in paint products, and as an anaesthetic. Many more uses exist incidentally, such as in the production of freeze dried coffee. As in the case of many volatile organic compounds, TCE is toxic and can affect the health of animals (and plants) exposed to it. Since the 1940's, many scientific papers dealing with the biological effects of TCE exposure have been published. Biological effects on workers exposed to TCE have been the motivation for most of the papers.

Researchers have used many animal experiments to investigate the biological effects of TCE exposure. Human experiments have been performed too. Some research has revolved around acute (short term high level--e.g., 10 min. 1000+ ppm) exposure to TCE vapor. Such research has established the acute toxic properties of TCE: visual disturbances, confusion, fatigue, narcosis, anaesthesia (leading to death at extremely high concentrations). Other researchers have concentrated their efforts on the effects of chronic exposure to high and low levels of TCE vapors. Such research led (in 1975) to the establishment of the current OSHA standards for worker exposure (as enforced by the Oregon Accident Prevention Division) of a 100 parts per million average TCE concentration and 300 ppm maximum concentration.

In the 1970's, concern over the carcinogenic potential of commonly used chemicals stimulated new research.

With the discovery of the carcinogenic nature of vinyl chloride (VC), researchers turned their attention to other short chain organochlorine compounds. In March, 1975, the National Cancer Institute (NCI) reported preliminary results of a study which found no carcinogenic effects in rats, but which found the induction of a significant number of liver cell cancers in both male and female mice ($B6C3F_1$ strain). In 1976, the NCI confirmed those results and described them in great detail. The study was conducted over a 2-year period and involved administering TCE to the mice by gavage (pouring liquid down a tube inserted into the stomach) at dose rates varying between 869 and 2339 mg/Kg body weight/day [in humans that would equate to a 150 lb. person drinking roughly 1-2 shot glasses of pure TCE per day]. NCI additionally found similar and more pronounced tumor formation with carbon tetrachloride, chloroform, and tetrachloroethylene.

NCI's TCE study conforms, according to the U.S. Public Health Service National Institute for Occupational Safety and Health (NIOSH), with the National Cancer Advisory Board 1977 criteria for carcinogenicity. In NIOSH's opinion, the high dose rates, gavage route of exposure and low level contamination of air, food and water with other chemicals did not negate the validity of the test results.

The Manufacturing Chemists Association (MCA) is currently conducting a long term inhalation study on the $B6C3F_1$ strain of mouse. According to a 1978 NIOSH report, similar results to the NCI study have been preliminarily found.

ASSESSMENT OF CARCINOGENIC POTENTIAL OF TCE TO HUMANS

NIOSH researchers Norbert Page and Jack Arthur stated that as of January 1978 no evidence had been found to associate TCE with carcinogenicity in humans. They feel it would be difficult to detect a relationship in the American working population because of worker mobility and poor medical recordkeeeping. Their paper did cite a 1977 study from Sweden (where a stable work force and better medical records exist) of 518 men exposed to TCE since before 1970. The Swedish authors (Axelson, et al) state that their study could not be used to rule out the risk

of cancer induction by TCE. However, they state that the lack of an observed effect makes it probable that TCE is not a very serious cancer hazard at low levels. The Swedish Occupational Exposure Standard level is 30 ppm.

Page and Arthur did recommend lowering the OSHA limit for TCE from 100 ppm to 25 parts per million. That recommendation has not been acted upon yet.

The Department's charge to Evans was to provide "highest and best practicable" removal of TCE vapors. The Company's process lines control TCE vapor emissions by two methods. First is a chilled condensor system to remove the majority of the TCE from the waste air stream. The condensor system is followed by adsorption on activated carbon as the last pollution control step.

The Evans Products Company's plans stated that the carbon adsorption beds were designed to provide 95% TCE removal efficiency (95% of what enters the beds). The Department required 3 source tests to be done on the carbon adsorption system with efficiency boosting changes between the tests. The final average efficiency of the carbon adsorption beds was found to be 95+%.

The Department's best engineering judgment is that the 95% removal level through carbon adsorption "highest and best practicable" treatment. To find out what levels of TCE might be found in the area surrounding the Evans plant, a computer model of emissions from the carbon adsorption beds was made. The model showed a 24-hour average of 15 parts per billion of TCE at a distance of 120 meters from the plant decaying to 2 parts per billion at a distance of 480 meters.

The exhaust stacks of the carbon adsorption beds are only about 3 meters tall, while surrounding buildings are taller. Meteorological conditions could develop such that a TCE level as high as 18 parts per million (1000+ time the average) could exist for short durations (3-10 minutes). Such a condition is called plume downwash and could be alleviated by the Company providing a taller exhaust stack. A taller stack would have the added benefit of reducing the 24-hour average levels as well. The Company has been requested to provide the taller stack to eliminate the possibility of plume downwash.

It is the Department's judgment that the health of the citizens living near the Submicro plant will be protected by the proposed permit.

Evaluation

The proposed Air Contaminant Discharge Permit contains the following important provisions:

Condition

1. All pollution control equipment and air contaminant generating processes should be maintained at full efficiency.

2. Particulate emissions are limited to: 0.1 grain/standard cubic foot; less than 20% opacity; no particle with a diameter larger than 250 microns shall be deposited on the real property of another person.

3. TCE emissions from the carbon beds are limited to 10 lbs/hour with a minimum carbon bed efficiency of 95% TCE removal (whichever is more restrictive).

4. Odor from the Submicroporous battery separator manufacturing process is limited to a scentometer Number 0 strength in residential and commercial areas.

5. Monitoring of the process through TCE consumption, pollution control device maintenance, source test results and daily inspections will be performed and results submitted to the Department monthly.

6. Three source tests per year will be performed on the carbon beds. Additional source tests will be conducted following any repairs or modifications to the beds.

Attachment: Proposed Air Contaminant Discharge Permit for Evans Products Company Submicroporous Battery Separator Plant.

Ted Groszkiewicz:wr
378-8240
October 15, 1979

450 40
250,000
500
12,500,000 00
462
100,000,000

100,000 # month / 8200 gall

5000 #
240 #
4760 #

400 gal

5 days

400 gallon
300 gallon / to meet osh standards - 100ppm. 1ppm

3.78 liter/gal

density of TCE
1.46 gm/cc

300 x 3.78 = 1134 litter of TCE

1.46 g/cc X 1134 x 1000 cc/l = 1,660,000 gm
2,7[illegible],520 gm /131

1.66 x 10^6 gm.

molecular WT
131.39/22.4 litt

22.4 / 131.39 x 1.66 x 10^6 = 2.83 x 10^5 litter
3.77 x 10^5 [illegible]

3.77x10^5 /28.3 = 1334 cuft ft
2.83 x 10^5 l x .0353 cuft/litter = ~~9.99~~ 10^4 cu ft.
1334 cu ft

10^4 cu ft TCE full day - 300 gallon

10^4 / 1,000,000

10^4/24 x 1h/60 = 6.94 cuft/min TCE 100%

6.94 cuft/min x 10^4 6,9400 cu ft./min

12,200 building 40 x 60 x 30 = 45,000 cuft.

Days clean: 69,400 cu ft/min x 60 x 24 = 99,936,000 cuft = Cube 9993'

1.89 mile

1ppm cube 31,620' 5.98 mile

page

1 (introduction) In 1972, OSHA, adopted, as a workplace standard, for workplace exposure to TCE of 100 ppm as an 8-hour time-weighted average, 200 ppm as an acceptable ceiling limit, and 300 ppm as a peak exposure limit during not more than 5 minutes in any 2 hour period.

2 While a few countries other than the United States have set 100 ppm as an environmental limit, many others have set much lower limits,

3 In view of well-established toxic effects found among occupationally exposed medical and dental personnel, including maternal and fetal effects and possible carcinogenicity, NIOSH recommended that exposure to halogenated anesthetic gases, including TCE be controlled so as not to exceed 2 ppm, sampled over a period not to exceed 1 hour.

In respons to the NCI announcement, and the controversial nature of the results, a number of studies were initiated or planned to further explore the carcinogenic potential of TCE.
At the time of this writing, an appropriate worker population exposed to TCE has not been identified for study.

NIOSH believes that sufficient experimental evidence has now accrued to demonstrate a possible carcinogenic potential of TCE in occupational environment.

4 (Chemical and Physical Properties) At room temperature, TCE is a clear, colorless, noncorrosive, heavy liquid with a sweet odor characterized as ethereal or chloroform-like and a reported odor threashold ranging from 21 to 400 ppm.

TCE is volatile, but neither flammable nor explosive at room temperature.

TCE is practically insoluble in water.

5 TCE decomposes under a number of environmental conditions and may degrade to more hazardous compounds. Among these are phosgene, carbon monoxide, dichloroacetylene , TCE ozonides, hydrochloric acid and TCE eposide.

High temperature, especially above 125 C, further promote the degradation process, with the production of phosgene and hydrogen chloride.

6 It should thus be obvious that the hazard from TCE must be judged not only on the basis of its own toxicity but also on those of the products that may be produced by reaction with other chemicals present during the processes in which TCE is used.

11 Biological effects
A. toxicity Toxic effects on the central nervous and cardiovascular systems, skin liver and kidney have been attributed to exposure to TCE.

Effects on the CNS, principally depression, have been well documented. Among the symptoms most often described are: headache, nausea, vomiting, dizziness, vertig fatigue, mental dullness, sleepiness, feeling of light-headedness, insomnia, and burning eyes. Trigeminal palsies have been reported as have several cases of visual deterioration.

High, acute doses have also resulted in cardivascular and respiratory effects with a number of death attributed to respiratory arrest, cardiac arrhythmias, including ventricular fibrillation, and primary cardiac standstill. Respiratory distress has been observed often, especially following intermittent inhalation exposure, with such symptoms as chest tightness and labored breathing.

page

iv TCE's acute toxicity is well known and is related mainly to central nervous system depression, cardiac arrhythmias, and dermal effects. In contrast, chronic effects are not as well documented under usual occupational exposure conditions. There is evidence, however, for leatent effects, including those of liver, kidneys, and nervous system.

v No evidence is known which associates TCE with an increased risk of cancer in humans. However epidemiology studies to test for such an association have only recently been initiated.

Based upon this special review of all these data, NIOSH concludes that TCE has a carcinogenic potential in the workplace: however, it is not considered to be a potent carcinogen.

page

11 Dermal effects have long been noted, principally as a localized reddening or flushing of the skin, although generalized dermatitis has also often occured as a result of exposure to TCE

12. Small quantities of ethanol have been shown to increase the concentration of TCE in the body, of practical importance in assessing the hazard of TCE.

The effects of chronic exposure of humans to TCE have not been extensively studied and thus are not well characterized. Studies with laboratory animals and a few clinical studies, demonstrated latent effects of the liver, kidney and nervous system.

Thus, it is unlikely that the potential magnitude of any liver or kidney abnormalities in humans exposed for long periods to TCE are fully known.

13. In assessing possible toxic effects associated with working with TCE, one must be concerned not only with the toxicity of TCE and its metabolites, but also with that of other chemicals formed by its environmental degradation or of products of reaction between TCE and components of normal biological systems.

TCE vapor around open flames or even drawn through lighted cigarettes may degrade to phosgene and CO. Acute exposures to phosgene at 10-15 ppm may be fatal, with severe distress occuring at even lower concentrations.

56 (Results of NIOSH Health Hazard Evaluations) Low levels of trichloroacetic acid and trichloroethanol were found in the urines of workers although the exposures were on the average much less than one-half the standard, ranging from 10-95 ppm.

57. Urine levels of trichloroethanol correlated well with exposures below 50% of the federal limit. The exposures were intermittent and only for a portion of the working period. Even so, toxic effects were reported.

From these heatlth hazard evaluations there seems ample reason to challenge the current Federal standard based upon acute effects alone. Effects have been documented at levels of one fourth to one-half the OSHA limit.

58. (Summarization of Biological and Exposure Data) The evidence, as present in this report, requires that TCE be considered as a potential carcinogen humans: however, the animal and in vitro results do not warrent considering TCE as a potnet carcinoge

OAQPS-78-12
75/3 II-A-028

HEALTH EFFECT SUMMARY DOCUMENTS

on

TRICHLOROETHYLENE

METHYLENE CHLORIDE

METHYL CHLOROFORM

TRICHLOROTRIFLUOROETHANE

ESED, CPB, CMS (MD-13)
ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27711

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

Rcvd. 4/Dec 79.

Mr. Art Boyle
7610 NE Pettibone Road
Corvallis, Oregon 97330

HEALTH EFFECTS OF TRICHLOROETHYLENE

Review of the available data suggests that trichloroethylene has a low potential for serious adverse effects in humans exposed to ambient concentrations found or expected in the environment. The global average background concentration of trichloroethylene is about 8 parts per trillion (ppt) (Singh et al., 1978). However, trichloroethylene is a toxic chemical with established carcinogenic and mutagenic properties, and the consequences of chronic exposure to low levels of the compound are unknown. Evidence for the carcinogenicity of trichloroethylene include: (1) statistically significant excess of cancer in laboratory animals, (2) mutagenicity of the chemical and its biometabolites in several test systems, (3) structural and metabolic similarities of trichloroethylene to vinyl chloride and other important carcinogens and mutagens. Epidemiology studies in Finland and Sweden did not find any association of trichloroethylene and cancer. However, the investigators cautioned against ruling out carcinogenicity, as the sensitivity of the studies is low and, the observation period is short. Considering the currently available laboratory evidence of its carcinogenic potential minimizing all human exposure to trichloroethylene is considered important.

CARCINOGENICITY

Trichloroethylene was one of several halogenated hydrocarbon compounds selected for bioassay by the National Cancer Institute because of chemical structure and lack of adequate toxicity data as well as large production and extensive use. In a study conducted for the National Cancer Institute the chemical was appraised separately in male and female Osborne-Mendel rats and male and female $B_6C_3F_1$ mice. Commercial trichloroethylene was administered to

the test animals in a corn oil vehicle by gastric intubation (stomach tube) 5 days a week for 78 weeks. The results of this carcinogen bioassay of trichloroethylene indicate the induction of a highly significant number of hepatocellular carcinomas in both male and female mice, but no carcinogenic effects in rats. The National Cancer Institute concluded that, under the conditions of the bioassay, trichloroethylene is a carcinogen in mice. The results do not provide evidence that trichloroethylene causes cancer in rats. These findings have been described in great detail (National Cancer Institute, 1976).[1]

SCIENTIFIC ISSUES CONCERNING THE RELEVANCE OF THE NCI BIOASSAY TO NORMAL HUMAN EXPOSURE

Species Differences

A significant association between increased dosage and accelerated mortality was observed in rats treated with trichloroethylene. Early mortality may have obscured a carcinogenic effect in these animals. However, a carcinogenic potential in the mouse has been demonstrated for trichloroethylene under the test conditions and similar results were obtained from the inhalation study administered by the Manufacturing Chemists Association (MCA).[2] Difference in species response to chemical carcinogens might be attributed to differing metabolic pathways and to an inability of some species to convert effectively the test chemical, in this case, trichloroethylene, to an active carcinogen. Bannerjee and Van Duuren (1978)[4] have demonstrated differences in the metabolism of trichloroethylene by the $B_6C_3F_1$ mouse and the Osborne-Mendel rat used in the NCI study. Their *in vitro* findings of a higher degree of binding of trichloroethylene to microsomes in mice than in rats agree well with the test results of NCI bioassay for trichloroethylene--hepatocellular carcinoma in the mice, no significant tumors in the rat.

ROUTE OF EXPOSURE

In the NCI study, trichloroethylene was administered by gastric intubation. Ambient air exposures are predominantly by inhalation. The MCA study, which appears to be in agreement with the results of the NCI study, was an inhalation exposure.

DOSE LEVELS

High dose levels were used in the NCI bioassay to increase the probability of a tumorigenic response by the test system.

EXPOSURE TO OTHER CHEMICALS

The animals in the NCI bioassay may have been exposed to low levels of known carcinogens by way of contaminants in the trichloroethylene, the air, water, or feed. These contaminants may have exerted possible additive or modifying effects.

Additional Studies

Similar results from an inhalation carcinogenicity study administered by the Manufacturing Chemists Association (MCA) support the conclusions of the National Cancer Institute Bioassay. This study also indicates no evidence of cancer in rats but an apparent induction of liver cancer in mice.[2] Pathology was completed on only the livers of the animals in the MCA study.[2]

Waters et al. (1977)[3] listed four other toxicity studies, none of which revealed evidence for carcinogenicity.[4] All of these studies had major design weaknesses such as inadequate period of exposure or observation, too few animals, and in three studies, no deaths or data recorded on any of the animals, and thus the studies do not qualify as adequate tests for cancer-causing activities.[4]

The biotransformation of trichloroethylene has been proposed to include the formation of intermediate products which might be mutagenic or carcinogenic, or both. Results of a mouse skin bioassay conducted by Van Duuren and co-workers at the New York University Institute of Environmental Medicine indicate that trichloroethylene epoxide, a probable metabolite of trichloroethylene, is carcinogenic.( ) Strong presumptive evidence exists that the highly reactive trichloroethylene epoxide is produced during the biotransformation of trichloroethylene and that this metabolite is likely responsible for the carcinogenic and mutagenic activity of trichloroethylene.( )

Several positive mutagenic tests and malignant transformation of cultured cells have also been reported. With addition of metabolic activation, trichloroethylene has been shown to be mutagenic in bacteria (Salmonella typhimurium and E. Coli) in yeast, and in Tradescantia.( )

A study by Price et al. (1978)( ) demonstrated in vitro carcinogenesis by trichloroethylene. Malignant transformation of mammalian cells was observed.

TERATOGENICITY

The teratogenicity of trichloroethylene has not been established. Trichloroethylene readily crosses the placenta, and has been demonstrated to accumulate in fetuses of sheep and goats.( ) Further research is needed to assess the teratogenic potential of trichloroethylene, especially since suggested evidence from animal and human studies indicates that trichloroethylene may contribute to abnormal fetal development as well as adverse reproductive effects.( )

EPIDEMIOLOGY

Epidemiology studies in Finland and Sweden did not find any association of trichloroethylene in cancer. However, the investigators cautioned against ruling out carcinogenicity as the sensitivity of the studies is low and the observation period is short.( )

In a recent special occupational hazard review of trichloroethylene, the National Institute of Occupational Safety and Health (NIOSH) concluded that trichloroethylene has a carcinogenic potential in the workplace, but it is not considered to be a "potent carcinogen". NIOSH made several control recommendations and considered the substitution of other organochlorine solvents for trichloroethylene unwise as these also exhibit health and environmental hazards.( )

EFFECTS ON ANIMALS AND HUMANS

While the issue of carcinogenicity is the most critical concern, other toxicological effects should also be mentioned. The acute toxicity of trichloroethylene is well known and is mainly related to central nervous system (CNS) depression, cardiac arrhythmias, and dermal effects. Chronic effects, however, are not as well documented, although there is evidence for the occurrence of latent adverse effects including damage to the liver, kidneys, and nervous system. Toxic effects have been reported in laboratory animal studies as well as in workers chronically exposed to levels of trichloroethylene around 100 ppm.( )

The literature on the toxicity of trichloroethylene has been reviewed earlier by various investigators.( ) A number of recent reviews have been presented which assess the toxic effects of trichloroethylene.( ) Much of the information on the toxicology and pharmacology of trichloroethylene has been derived from observations made in humans who are exposed occupationally, accidentally, and voluntarily--the latter to induce anesthesia or as a form of abusive inhalation. Symptoms most often described which can be readily explained by the anesthetic action of trichloroethylene include: headache, nausea, vomiting, dizziness, vertigo, fatigue, mental dullness, sleepiness, feeling of light-headedness, insomnia, and burning eyes. There are other neurologic

manifestations of humans exposed to trichloroethylene that include mental disorders,( ) cranial neuropathy,( ) peripheral neuropathy,( ) atrophic lesions of the brain,( ) and spinal cord.( )

For instance, trigeminal palsies have been reported, as have several cases of visual deterioration. These lesions have not been reproduced in animals inhaling trichloroethylene. However, considerable evidence has accumulated that indicates that dichloroacetylene is the likely neuropathy-causing agent in trichloroethylene exposures.( ) Reichert et al. 1975, by exposing mice to dichloroacetylene, demonstrated degenerative lesions in the brain considered parallel to those responsible for neurotoxic symptoms observed in man. The changes in the electroencephalogram in patients undergoing general anesthesia with trichloroethylene are indications of its depressant action.( ) The EEG and cortical potentials in animals show a depression of activity due to an effect on the synapses by trichloroethylene, similar to that elicited by other general anesthetic (References 211-217). Depressed nerve cell activity has been shown by reduction in high energy phosphate (218) and inhibition of a brain protease (219) in brains of mice exposed to trichloroethylene.

Alcohol intolerance is a well known and well characterized phenomenon among workers exposed to trichloroethylene. In addition to sensitivity to alcohol, a condition known as "degreasers flush" occurs.( ) Vasodilation of the superficial blood vessels of the skin resulting in skin blotches causes this condition. Stewart et al. (1974) studied the sensitivity to alcohol and "degreasers" flush in human volunteers and determined that these effects are sometimes present for several weeks after cessation of exposure to trichloroethylene. The blood vessels may show dilation as well as constriction, depending upon the organ, when there is an elevation of trichloroethylene in the body.( )

Skin effects have long been noted, principally as a localized reddening or flushing of the skin although exposure to trichloroethylene has been reported to cause generalized dermatitis, both of the exposed and non-exposed areas of the skin.( ) Some of this may be due to a hypersensitivity reaction.

THE CARCINOGEN ASSESSMENT GROUP'S

PRELIMINARY RISK ASSESSMENT ON

TRICHLOROETHYLENE

Type One

Roy E. Albert, M.D.
Chairman

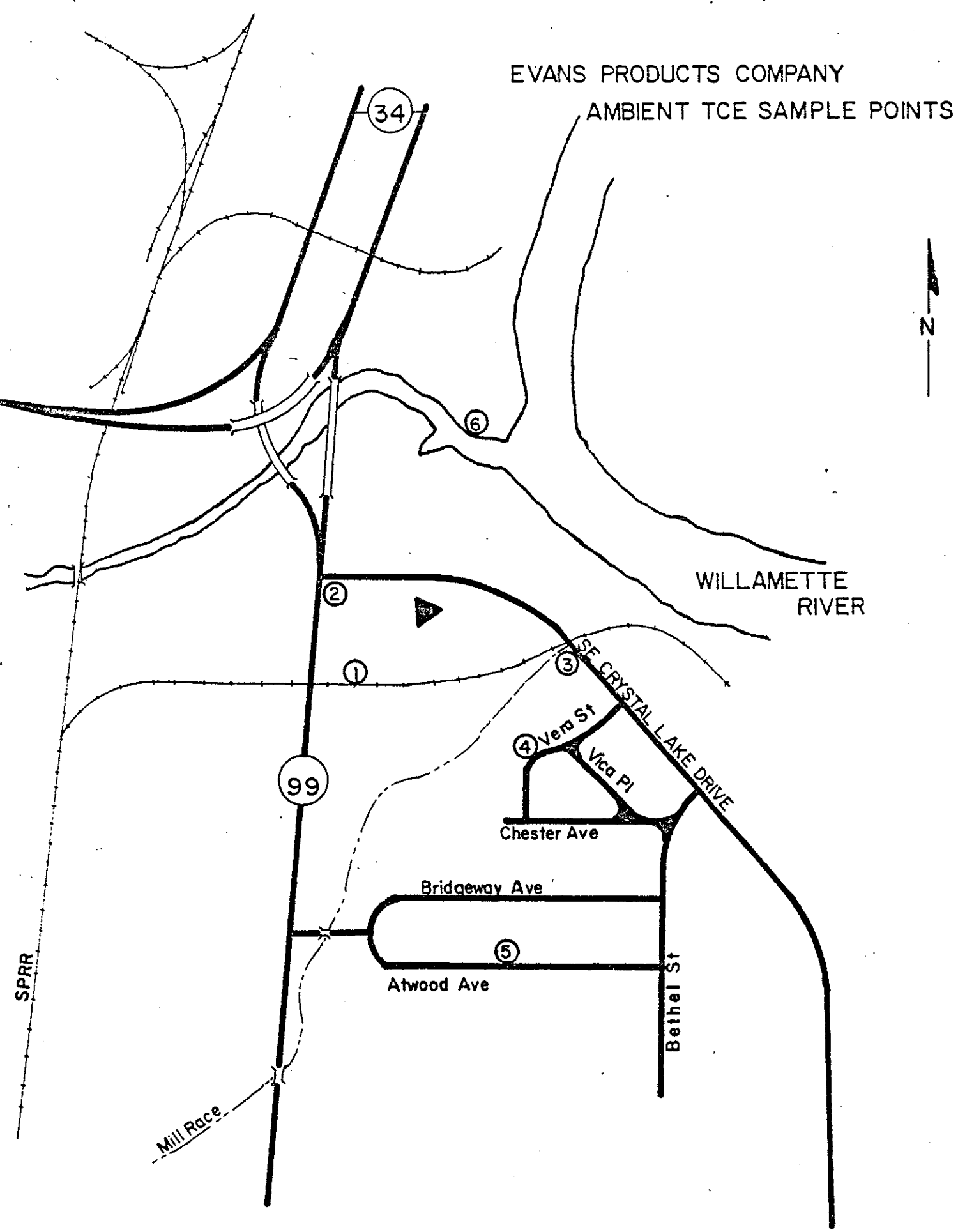
Particpating Members
Elizabeth L. Anderson, Ph.D.
Warren Hercules, B.S.E.E.
Kristine Hess, B.S.
Charlingayya Hiremath, Ph.D.
Robert McGaughy, Ph.D.
Steven Miller, M.S.
Ruth Pertel, Ph.D.
Wade T. Richardson, J.D.
Dharm Singh, D.V.M., Ph.D.
Todd W. Thorslund, Sc.D.
Adrienne Zahner, Ph.D.

I. Summary

Trichloroethylene (TCE) administered by oral gavage has induced hepatocellular carcinoma with metastases in male and female B6C3F1 mice with an incidence significantly higher in treated than in control groups. Although four negative inhalation studies have been reported, the short time of observation in three cases and the unavailability of the time of observation in one, make these results inconclusive for evaluation of carcinogenic potential. Chronic oral administration at dose levels of 1,097 mg/kg and less did not induce hepatocellular carcinoma in Osborne-Mendel rats. Reports on its mutagenic activity have shown that with metabolic activation, TCE is positive in the Ames test system using Salmonella typhimurium, in E. coli K-12, and in Saccharomyces cevevisiae, in addition to other system tests.

The positive carcinogenic response to TCE in mice, along with its ability to induce genetic changes constitute sufficient evidence that TCE is a possible human carcinogen.

A quantatative risk analysis based on the animal studies assuming a lifetime continuous exposure to 1 ug/m^3 showed an individual lifetime risk of 4.19×10^{-6}. Similarly, the risk from a continuous lifetime exposure to 1 ppb is 2.25×10^{-5}.


EVANS PRODUCTS COMPANY
AMBIENT TCE SAMPLE POINTS
34
N
6
WILLAMETTE
RIVER
2
1
3
SE CRYSTAL LAKE DRIVE
4
Vera St
Vica Pl
99
Chester Ave
Bridgeway Ave
5
Atwood Ave
Bethel St
SPRR
Mill Race

SEMRTS FIELD SITE
BOTANY & PLANT PATHOLOGY FARM, OSU

MET DATA (10m)
2 NOV 79

(AVERAGE VALUES)

TIME (PST)	WIND SPEED (m/s)	WIND DIR (deg)
00:00 - 01:00	.4	319
01:00 - 02:00	.2	223
02:00 - 03:00	.3	210
03:00 - 04:00	.6	275
04:00 - 05:00	.3	250
05:00 - 06:00	.6	4.1
06:00 - 07:00	.6	3.9
07:00 - 08:00	.7	341
08:00 - 09:00	.3	255
09:00 - 10:00	1.0	164
10:00 - 11:00	1.0	181
11:00 - 12:00	1.4	193
12:00 - 13:00	2.1	181
13:00 - 14:00	1.3	210
14:00 - 15:00	1.0	203
15:00 - 16:00	.8	209
16:00 - 17:00	2.7	194
17:00 - 18:00	1.5	223
18:00 - 19:00	1.3	235
19:00 - 20:00	.7	190
20:00 - 21:00	1.5	220
21:00 - 22:00	1.0	208
22:00 - 23:00	(DATA NOT AVAILABLE)	

BOTANY & PLANT PATHOLOGY FARM, OSU — 1 Nov 79

(AVERAGE VALUES)

TIME (PST)	WIND SPEED (m/s)	WIND DIR (deg)
00:00 - 01:00	.5	34
01:00 - 02:00	.1	273
02:00 - 03:00	.3	60
03:00 - 04:00	.7	245
04:00 - 05:00	.3	201
05:00 - 06:00	.5	279
06:00 - 07:00	.6	271
07:00 - 08:00	.8	231
08:00 - 09:00	.8	214
09:00 - 10:00	.5	323
10:00 - 11:00	.6	248
11:00 - 12:00	1.0	208
12:00 - 13:00	.8	280
13:00 - 14:00	.9	35
14:00 - 15:00	.8	344
15:00 - 16:00	.4	204
16:00 - 17:00	.6	100
17:00 - 18:00	.5	126
18:00 - 19:00	.7	207
19:00 - 20:00	.4	162
20:00 - 21:00	.2	241
21:00 - 22:00	.2	289
22:00 - 23:00	.1	280

BOTANY & PLANT PATHOLOGY FARM, OSU

31 Oct 79

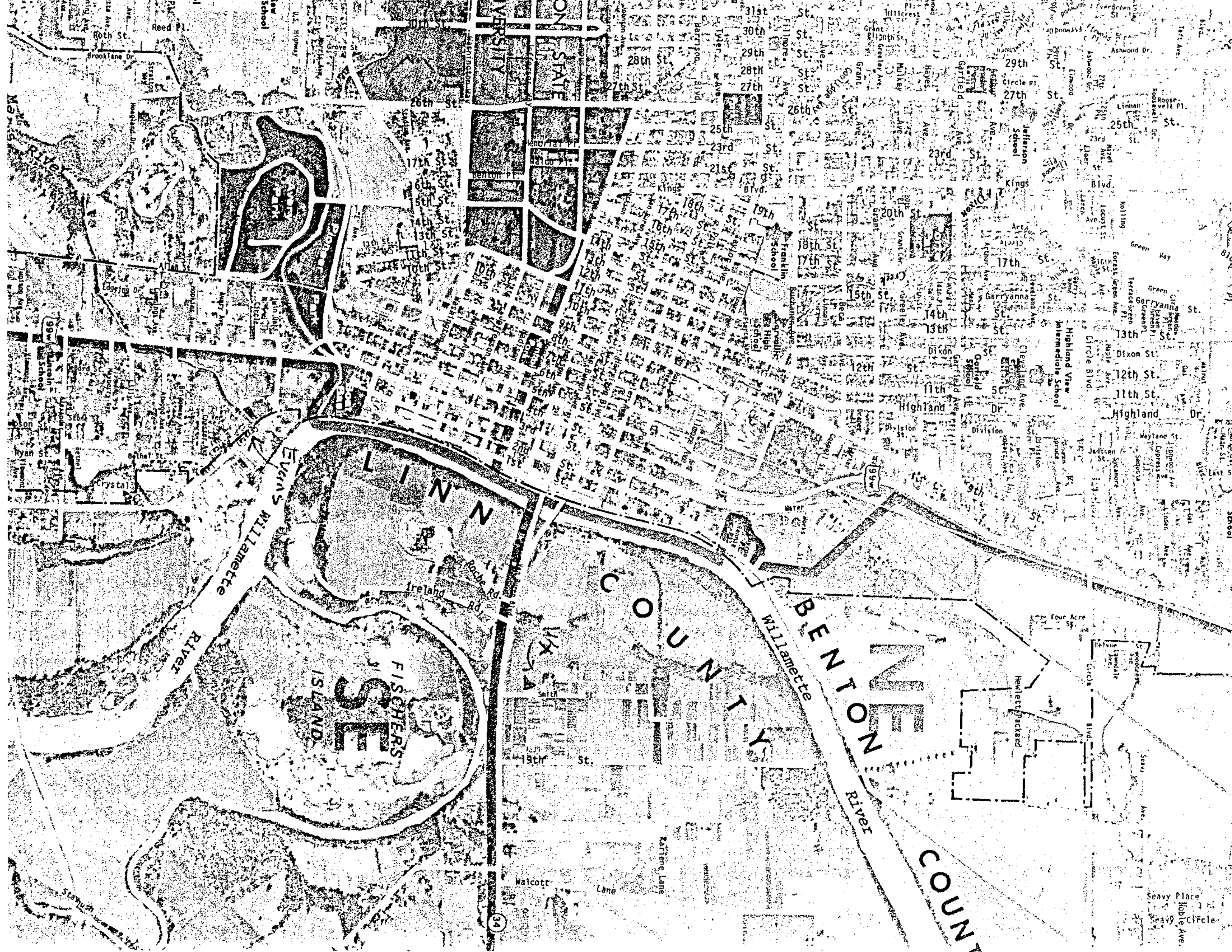
(AVERAGE VALUES)

TIME (PST)	WIND SPEED (m/s)	WIND DIR (deg)
00:00 - 01:00	4.3	13
01:00 - 02:00	3.7	14
02:00 - 03:00	3.6	6
03:00 - 04:00	2.5	15
04:00 - 05:00	2.2	29
05:00 - 06:00	2.2	19
06:00 - 07:00	2.4	23
07:00 - 08:00	2.1	353
08:00 - 09:00	1.8	348
09:00 - 10:00	3.5	30
10:00 - 11:00	3.9	28
11:00 - 12:00	3.5	25
12:00 - 13:00	3.5	34
13:00 - 14:00	3.0	39
14:00 - 15:00	2.7	40
15:00 - 16:00	2.2	23
16:00 - 17:00	(DATA NOT	AVAILABLE)
17:00 - 18:00	"	
18:00 - 19:00	"	
19:00 - 20:00	"	
20:00 - 21:00	"	
21:00 - 22:00	"	
22:00 - 23:00	.3	255

SEMRTS FIELD SITE
BOTANY & PLANT PATHOLOGY FARM, OSU

MET DATA (10m)
30 Oct 79

TIME (PST)	(AVERAGE VALUES) WIND SPEED (m/s)	WIND DIR (deg)
00:00 - 01:00	.7	175
01:00 - 02:00	.8	175
02:00 - 03:00	1.8	150
03:00 - 04:00	1.4	173
04:00 - 05:00	1.5	190
05:00 - 06:00	2.7	187
06:00 - 07:00	2.9	169
07:00 - 08:00	3.6	181
08:00 - 09:00	3.0	183
09:00 - 10:00	3.9	175
10:00 - 11:00	5.0	177
11:00 - 12:00	5.1	178
12:00 - 13:00	4.6	177
13:00 - 14:00	4.4	169
14:00 - 15:00	4.4	169
15:00 - 16:00	4.0	178
16:00 - 17:00	3.8	167
17:00 - 18:00	2.9	159
18:00 - 19:00	2.9	160
19:00 - 20:00	2.4	156
20:00 - 21:00	(DATA NOT	AVAILABLE)
21:00 - 22:00	1.3	113
22:00 - 23:00	3.7	290


LINN COUNTY
BENTON COUNTY
Willamette River
FISCHER'S ISLAND
Kings Blvd.
Highland Dr.
Circle Blvd.
Garryanna St.
Highland View Intermediate School
Jefferson School
Franklin School
Corvallis High School
Garfield School
Hewlett Packard
Ireland Rd.
Roche Rd.
Walcott Lane
Smith St.
Seavy Place
Seavy Circle
Evans
29th St.
27th St.
26th St.
25th St.
23rd St.
21st St.
20th St.
18th St.
17th St.
15th St.
14th St.
13th St.
12th St.
11th St.
Dixon St.
Division St.

City of Corvallis
INCORPORATED JANUARY 1857

CORVALLIS CITY HALL
501 S.W. MADISON AVENUE
CORVALLIS, OREGON 97330

MAYOR'S OFFICE (503) 757-6985

December 7, 1979

Mr. John E. Borden
Manager
Willamette Valley Region
Department of Environmental Quality
1095 25th Street S.E.
Salem, OR 97310

Dear Mr. Borden:

On November 28, 1979, the Department of Environmental Quality held a hearing in Corvallis at the request of Evans Products Company pursuant to your permit number 02-2203, application number 1616, dated August 20, 1979. The hearing was held in regard to a permit application for an air contaminant discharge permit for the Evans Products Submicroporous Battery Separator Plant. Both the staff report discussing the contaminant, prepared October 22, 1979, and the testimony developed by concerned parties in the area raised some questions about the amounts of fugitive trichlorethylene (TCE) being released into the atmosphere.

Based upon the testimony given at the public hearing, the City Council at their regular meeting December 3, 1979, voted 5-4 to request the DEQ not to issue the final permit until the questions raised about the amounts of fugitive emission in relationship to the amounts captured in their pollution control devices are answered. It was the Council's position that additional testing and evaluation should clearly demonstrate that the public's health is not endangered. This request should not be construed as requesting a shutdown of the operation, only a delay until adequate assurances are given to the affected population group.

Thank you for your consideration in this matter. If you require additional information, please contact Mike Randolph at 757-6903.

Sincerely,

Alan Berg

Alan Berg
Mayor

AB:MMR:msm

cc: Mr. B.E. Mikulka
City Manager Pokorny
Public Works Director Randolph
Members of the City Council

benton county

board of commissioners

December 13, 1979

William H. Young, Director
Department of Environmental Quality
522 SW 5th Avenue
P.O. Box 1760
Portland, OR 97207

RE: Air Contaminant Discharge Permit;
Evans Products Battery Separator Plant

Dear Mr. Young:

While Benton County does not have direct responsibility for regulation of air quality issues, we are concerned about any potential health hazard to Benton County residents. We would urge that you, as Director of the Department of Environmental Quality, give full consideration to the protection of South Corvallis and Benton County citizens in issuing any permits to Evans Products.

We understand that the draft of the permit includes special provisions designed to control fugitive emissions from the plant and that DEQ staff are meeting with Evans Products representatives to gain agreement on this provision. We trust that the permit that is ultimately issued will provide a high level of protection to the citizens both now and in the future.

Sandra Gazley is Benton County's zoning administrator. If you have any questions about our concerns, feel free to contact her by calling 757-6821, Benton County Public Works.

Sincerely,

Barbara Ross
Chairman

BR:sr
cc: Art Boyle

Friends of Benton County

7610 NE Pettibone Road
Corvallis, OR 97330

December 7, 1979

The Honorable Victor Atiyeh
Governor, State of Oregon
Oregon State Capitol
Salem, OR 97310

Sir:

On November 28, 1979 the Department of Environmental Quality held a public hearing on a proposed Air Contaminant Discharge Permit for the Evans Products Submicroporous Battery Separator Plant in Corvallis. At this hearing DEQ disclosed that the plant emits 100,000 lbs. per month of trichloroethylene (TCE), a toxic substance, into the predominantly residential neighborhood. As one shocked resident exclaimed, "Good Lord, that's two and a half tons each working day!"

The Friends of Benton County initiated a petition requesting delay in issuance of the permit until additional testing and evaluation prove that the public's health is not endangered. Acopy of the petition is enclosed. We are presently circulating the petition: the response is excellent.

We have addressed the petition to you, as well as to local officials, because the ultimate responsibility for the health and safety of the people of Oregon is yours. The Friends of Benton County ask your help in obtaining a delay in issuance of the permit until the health of those affected by the TCE emitted by Evans Products, both employees and residents, can be reasonably assured. We ask for the delay for the following reasons:

1) A very large amount of TCE is being emitted.
2) TCE is toxic, a mutagen, and a potential cause of cancer in man.
3) The plant adjoins a residential area upwind of city center.
4) The permit addresses only 5% of TCE emissions, the rest are labeled "fugitive emissions" and are unaccounted for.
5) The permit establishes a precedent allowing a company to start a process, without a permit, in violation of state statutes, without penalty.
6) A second stack, discovered by DEQ just three weeks prior to the hearing, is estimated by DEQ to emit several times as much TCE as the stack addressed in the permit.
7) DEQ estimates of public exposure were based on a mathematical model which ignored fugitive emissions, although they constitute 95% of the total.
8) The token ambient air test, only 12 samples on one day, was inadequate.
9) Although established tests can determine levels of human exposure by examination of breath, blood, or urine, DEQ conducted no tests of this kind on exposed persons, not even on those complaining of symptoms resembling those resulting from TCE exposure.

We urgently request your prompt attention to this matter.

danger at 1 to 2 parts per million

Sincerely,

William C. Denison
President, Friends of Benton County

found 1-8 parts per billion 1000 times below level.

Rec'd 12/14/79

Ron Davis
30519 Overholser Rd.
Cottage Grove, OR
97424
11-15-79

Murl Teske
Illinois Department of Public Health
535 Jefferson Street
Springfield, Illinois
62761

Dear Murl,

As you may remember I was involved in lobbying for acceptance of the recirculating sand filter in the last Oregon legislature. After passage of that bill the Oregon Department Of Environmental Quality was dictated to adopt rules permitting such systems. In the DEQ's proposed rules they have written specific rules for intermittent sand filters, but omitted recirculating sand filters. Mr. Mark Ronayne, of DEQ, has indicated that he contacted you some four months ago. He said that on the basis of this conversatinn with you and the several failures the Department has experienced, they did not feel secure in allowing the recirculating sand filter as a standard alternative. I know that they were using much smaller sand than you had recommended and the clogging of their systems was predicted. However, I was wondering if you recall your conversation with Mr. Ronayne? Specifically have recirculating sand filters in Illinois developed previously unforseen problems?

I would appreciate any light you might cast upon this issue. Thanks in advanced.

Yours truly,

Ron Davis

STATE OF ILLINOIS

DEPARTMENT OF PUBLIC HEALTH

2209 West Main Street
Marion, Illinois 62959

November 26, 1979

Mr. Ron Davis
30519 Overholser Road
Cottage Grove, Oregon 97425

Dear Mr. Davis:

I was very pleased to see that the State of Oregon legislature saw fit to include the recirculating sand filter as a viable alternative for individual or community waste treatment.

I do not recall any conversation that I have had with Mr. Ronayne of the Department of Environmental Quality regarding success or failure of recirculating sand filters. Any failures that we have had have been due to not following design considerations such as sand particle size or surface loading or recirculation control.

The recirculating sand filters that are built with sand size from 0.6 mm to 2.0 mm diameter, no greater than 5 to 1 recirculation, and no more than 3 gallons per square foot per day dose rate, have worked exceptionally well and have given no problems, foreseen or unforeseen.

If Mr. Ronoyne would care to call me to discuss recirculating sand filters, I would be happy to spend whatever time necessary to help clear up this matter. I can be reached at AC 618 997-4371.

Very truly yours,

Murl G. Teske
Regional Engineer

MGT:mm

In 1969, the Oregon State Sanitary Authority, predessor to the EQC, adopted rules that required all waste disposal wells to be eliminated by January 1, 1980. Substantial progress has been made towards total elimination of waste disposal wells, but many will be in use after this deadline. The proposed rules before the Commission today are amendments to the existing rules to accomodate these remaining waste disposal wells.

In drafting the proposed rules, the Department wanted to assure eventual elimination of waste disposal wells, but in a way that would not require substantial Department resources, would not place unrealistic demands upon property owners, and, in urban areas, would utilize existing regional sewerage facilities. We believe these rules will accomplish these concerns

Contact: Darrell Learn
378-3671
Jim Sexson
378-2982

State of Oregon WATER RESOURCES DEPARTMENT 555 13th ST SALEM OREGON 97310

December 4, 1979

FOR IMMEDIATE RELEASE

At its meeting on November 30 in Gold Beach, the Water Policy Review Board acted on several issues that may have far-reaching affects on Oregon's water resources.

The Water Policy Review Board adopted a resolution to the Corps of Engineers requesting that a portion of the water stored in the multiple-dam Willamette system be allocated specifically for water quality programs. The Board's action recognizes that the sewage treatment programs adopted by most valley communities and industries are predicated on the assumption that a sufficient streamflow will be maintained in the Willamette to dilute treated effluent to an acceptable standard. Water is now stored in the Willamette system for flood control, power generation, navigation, and irrigation uses. The Board is fearful that, if water is not specifically reserved for water quality releases, it may not be available at some future time, thus upsetting existing programs. If sufficient water is not released to satisfactorily dilute already treated releases, various water-using industries could be affected and communities in the valley may be forced to spend millions of dollars for additional water treatment facilities. The public had some warning of the potential problem during the drought of 1977.

The Board's resolution called on the Corps to "initiate necessary studies to accomplish the allocation of sufficient upstream storage to assure flows in the Willamette River of 6,000 cubic feet per second measured at Salem." Copies of the resolution will also be forwarded to Oregon's congressional delegation.

VICTOR ATIYEH
GOVERNOR

Water Resources Department

MILL CREEK OFFICE PARK
555 13th STREET N.E., SALEM, OREGON 97310 PHONE 378-3671

December 6, 1979

Colonel Terence J. Connell
District Engineer
U.S. Army Engineer District, Portland
Corps of Engineers
P.O. Box 2946
Portland, OR 97208

Dear Colonel Connell:

House Document 544, 75th Congress, and subsequent legislation, set forth a general plan for flood control and water storage in the Willamette Basin. Although specific uses vary from project to project, the system of reservoirs was authorized to generally serve flood control, navigation, irrigation, and power.

Besides the authorized purposes, the operation of the Willamette Basin Project has provided important incidental benefits for water quality enhancement, water-based recreation and other uses. While water quality enhancement is mentioned in the authorizing documents, this use is not a specific authorized function of any of the existing Corps of Engineers' reservoirs in the Willamette Basin.

The Board, by formal action, has adopted water resource programs for the Willamette Basin which include a minimum flow of 6,000 cubic feet per second at Salem. This flow is composed of 1,300 cfs of natural flow, with the balance provided by storage releases. Oregon has also adopted water quality standards for the Willamette approved by federal agencies in compliance with federal regulations. In developing programs to meet water quality standards, cities, communities and industries have constructed sewage treatment facilities predicated on the assumption that sufficient flows will be maintained in the river for dilution and conveyance of treated waste discharges.

The Water Policy Review Board recognizes that the Corps of Engineers has been able to achieve the desired flows in most years.

As far as we can determine, however, navigation is the only authorized purpose encompassing the release of stored water for downstream flow augmentation. In view of decisions to discontinue annual dredging for navigation along most of the river, the Board is concerned

that reliance on these flows or incidental project purposes does not provide satisfactory assurance for water quality management. Willamette Valley communities and industries face the prospect of constructing expensive, new sewage treatment facilities if sufficient flow augmentation is not available in the future.

For these reasons, the Water Policy Review Board believes that necessary studies should be initiated to secure the allocation of sufficient stored water for water quality purposes in the Willamette Basin Project. You may be assured that the Water Policy Review Board is prepared to support the actions necessary to achieve this objective.

The enclosed resolution on the Willamette Basin Project was adopted by the Water Policy Review Board on November 30, 1979.

Sincerely,

Donel J. Lane, Chairman
Water Policy Review Board

cc: Governor Atiyeh
Members of the Oregon Congressional Delegation
Members of the Water Policy Review Board

DJL:vt
Enclosure

RESOLUTION

WILLAMETTE BASIN PROJECT

ADOPTED BY THE WATER POLICY REVIEW BOARD

ON NOVEMBER 30, 1979

WHEREAS a general plan for flood control and water storage was authorized as the Willamette Basin Project in H.D. 75-544 and subsequent legislation.

WHEREAS certain elements of the Willamette Basin Project have been constructed and are operated by the Corps of Engineers.

WHEREAS the Willamette Basin Project is authorized for flood control, navigation, irrigation, and power.

WHEREAS water quality is not an authorized purpose of the Willamette Basin Project.

WHEREAS waste water treatment facilities have been constructed and are operated by public and private entities in the Willamette Basin based on the premise that certain releases will remain in the river for dilution.

WHEREAS under ORS 542.110 (2), the Water Policy Review Board is authorized to act for the State in all matters necessary or advisable in the promotion, construction, and maintenance of the Willamette Basin Project.

NOW THEREFORE be it resolved that the Water Policy Review Board requests that the Corps of Engineers initiate necessary studies to accomplish the allocation of sufficient upstream storage to assure flows in the Willamette River of 6,000 cubic feet per second measured at Salem, Oregon, for the purpose of water quality control.

-included- in tax credit motion

Application No. T-1119

Date: December 14, 1979

STATE OF OREGON - DEPARTMENT OF ENVIRONMENTAL QUALITY

Tax Relief Application Review Report

---

1. Applicant

Champion International Corporation
Champion Building Products
Box 10228
Eugene, Oregon 97440

The applicant owns and operates a plywood mill at Roseburg, Oregon.

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

2. Description of Claimed Facility

The facility described in this application is an upgrading of the wood waste processing system at the mill. New equipment includes a disk screen, hammer hog, rechipper and rotary chip screen.

Request for Preliminary Certification for Tax Credit was made September 14, 1977 and approved October 5, 1977.

Construction was initiated on the claimed facility October 15, 1977, facility was completed and placed into operation on July 1, 1978.

Facility Cost: $296,875.00 (Accountant's certification was provided).

3. Evaluation of Application

Prior to installation of the claimed facility, about 8,500 cubic yards a year of plant wood waste was landfilled and company landfill space was rapidly being depleted. The existing Diamond hog was inadequate to properly handle the large volume of wood waste received, particularly cedar bark. As a result, yarn-like balls were formed which caused plug-ups in the boiler feeders. This material was then discharged to the ground and taken to the landfill.

The new system allows for the total utilization of wood residues. All material from the sawmill and debarking area can now be fed to the boiler. The previously landfilled wastes are now being used as fuel for the generation of steam and electricity.

The company also requested certification for a re-chipping system. This system diverted materials previously used as hog fuel into chip production (providing a higher market value). The Department has determined that this re-chipping system does not reduce "solid waste" and therefore is not eligible for tax credit under the provisions of ORS Chapter 459.

The cost of the total project for which application was made is $296,875.00. This included the re-chipping system costs of $132,000.00. The cost of the disk screen, hammer hog and associated equipment is $164,875.00.

4. Summation

A. The facility was constructed in accordance with the requirements of ORS 468.175, regarding preliminary certification.

B. The facility was under construction on or after January 1, 1973, as required by ORS 468.165(1)(c).

C. The facility, except for the rechipping system, is designed for and is being operated to a substantial extent for the purpose of preventing, controlling, or reducing solid waste.

D. The facility, except for the rechipping system, is necessary to satisfy the intents and purposes of ORS Chapter 459, and the rules adopted under that chapter.

E. The portion of the facility cost that is properly allocable to pollution control is 100%.

5. Director's Recommendation

Based upon the findings in the Summation, it is recommended that the rechipping portion be denied. It is recommended that a Pollution Control Facility Certificate bearing the cost of $164,875.00, with 100% allocated to pollution control, be issued for the remaining portion of the facility claimed in Tax Credit Application Number T-1119.

William H. Dana:dro
229-6266
December 14, 1979

Environmental Quality Commission

POST OFFICE BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

VICTOR ATIYEH
Governor

TO: Environmental Quality Commission

FROM: William H. Young, Director

SUBJECT: Evans Products Company Submicroporous Battery Separator Plant Proposed Air Contaminant Discharge Permit.

You have the draft Evans Products Company Air Contaminant Discharge Permit.

Subsequent to a public hearing held on the proposed permit on November 28, 1979, my staff learned that the City Council of Corvallis has passed a resolution and a group known as the Friends of Benton County is circulating a petition requesting that permit issuance be delayed until further testing is performed to assure that public health is not endangered by the plant's emissions (OSHA limits TCE in the worker's environment to 100 ppm average and 300 ppm maximum).

Preliminary ambient air tests performed during stagnant air conditions prior to the public hearing showed no threat to public health. TCE was present at low (1 to 8 ppb) concentrations (1 ppm = 1000 ppb). Had ambient testing shown TCE levels of 2.5 ppm or greater, the Department would have sought plant closure on the basis of a potential threat to public health.

The Department's position on the matter of delayed permit issuance is that such a delay would be counterproductive. Requirements for additional ambient air testing and a program to reduce TCE fugitive emissions (which are 95% of the 600 tons per year total TCE emission rate) are contained in the proposed permit.

The permit requires an epidemiological study in the neighborhood if ambient testing indicates a threat to public health due to Evans Products TCE emissions. During the testing, Evans will monitor TCE in the neighborhood and will cease plant operations if the concentration reaches 25 ppm (which is near the reliable limit of detection of Evans' OSHA monitoring equipment). Issuance of the permit would establish a base for enforcement action. Should additional permit requirements be found necessary as a result of the testing, they could be added by addendum.

The source is currently operating and has been deemed to have a temporary permit because the Department could not complete processing within 45 days after the completed application was received (OAR 340-14-020). The Department needs a more specific tool (the permit) to enforce negotiated emission limitations, monitoring requirements, and emission reduction programs.

The Department proposes to issue the permit prior to the completion of additional studies.

WILLIAM H. YOUNG

Ted Groszkiewicz: wjr
378-8240
December 7, 1979

LANE REGIONAL

AIR POLLUTION AUTHORITY

(503) 686-7618
16 Oakway Mall, Eugene, Oregon 97401

Donald Arkell,
~~Xxxxx Xxxxxxx~~ Program Director

To: Environmental Quality Commission

From: Eugene-Springfield Air Quality Maintenance Area
Citizen's Advisory Committee for Total Suspended Particulate

Subject: Agenda Item F, December 14, 1979, EQC Meeting
Public Hearing to Consider Adoption of Proposed Open Field Burning Regulations, OAR Chapter 340, Section 26-005 Through 26-030 and Amendment to the Oregon State Implementation Plan

This written testimony is submitted for the record on behalf of the Eugene-Springfield Air Quality Maintenance Area Citizen's Advisory Committee for Total Suspended Particulate. The Committee Chairman is Jack Delay. Chief staff members are Joe Lassiter, Lane Regional Air Pollution Authority, and Bob Gay, Department of Environmental Quality. This committee is charged with the responsibility of selecting and recommending control strategies designed to bring the Eugene-Springfield AQMA back within the federal secondary standard for total suspended particulate.

This committee supports and recommends Environmental Quality Commission adoption of the open field burning regulations as proposed by the staff of the Department of Environmental Quality.

The committee recognizes smoke from open field burning to be a contributor to the suspended particulate levels in the Eugene-Springfield Airshed. The committee expects this source, and all suspended particulate sources impacting this airshed to be held accountable when control strategies are selected and recommended. The committee also recognizes the lengthy confrontation and discussion that has ensued between the City of Eugene and representatives of the Willamette Valley grass seed industry on the question of impact from this source on Eugene-Springfield air quality, and how best to minimize that impact.

-more-

Being a local citizen's advisory group, the committee agrees with the City of Eugene and the grass seed industry that the proposed open field burning regulations represent the best chance, to date, to minimize the smoke impact on our airshed. These proposed regulations, particularly with respect to the "performance standard" and the daily monitoring/weather forecasting program that would be conducted, further represent fairly workable, although not fully tested mechanisms that are designed to minimize and hopefully eliminate this impact.

Specifically, the committee views the automatic particle monitoring (APM) portion of the proposed regulations to be the key ingredient in determining the success of the overall smoke management program from an attainment and maintenance standpoint. In fact, the committee feels that the APM program should satisfy any requirements for preventing field burning from having an effect on Eugene-Springfield attainment of the federal suspended particulate standard.

Further, the committee feels that the remaining proposed regulations, including the restriction of south valley burning in order to ensure that federal 24-hour Prevention of Significant Deterioration increments are not exceeded, make it reasonable to expect that in the event of a field burning smoke intrusion into Eugene-Springfield, that intrusion will be as minimal as possible.

In a related matter, the committee wishes to emphasize that the key issue, from our standpoint, is not necessarily the maximum number of acres allowed for burning, but rather our attainment of the federal secondary suspended particulate standard and the prevention of deterioration of our air quality. With this belief in mind, the committee feels that it can support the total proposed regulation package, including that portion dealing with the legislature-directed upper limit on the number of acres that can be burned.

In summary, the Eugene-Springfield Air Quality Maintenance Area Citizen's Advisory Committee for Total Suspended Particulate supports the proposed regulations governing open field burning in the Willamette Valley. While recognizing that the methods proposed have not been fully tested and that there

is the possibility that the Eugene-Springfield area may be impacted, on occasion, by future field burning smoke episodes, the committee feels that these proposed changes offer a real hope that the future impact of field burning on the Eugene-Springfield Airshed will be minimal to the extent of having no effect on our attaining or maintaining federal air quality standards for suspended particulate.

md

STATE OF OREGON

ROUTE SLIP

Date 12-12-79

TO: Bill Young

FROM: Jack Osborne

CHECK

____ Approval	____ Investigate
____ Necessary Action	____ Confer
____ Prepare Reply	____ Per Telephone Conversation
____ For My Signature	____ For Your Information
____ Your Signature	X As Requested
____ Comment	____ Note and File
____ Initial and Return	____ Return With More Details

COMMENTS:

This will be passed out at the Bargaining meeting on Friday.

IJO

81-125-1569

COMPARISON
OF
SITE CRITERIA STANDARDS
FOR
CONVENTIONAL SUBSURFACE VS SAND FILTERS SYSTEMS

Site Criteria	Septic Tank & Drainfield	Sand Filter System
Depth to Impervious layer	36"	No standard
Depth to Restrictive layer	30"	No standard
Depth to Permanent water table	48" separation - between trench bottom & water table Min. 5-1/2' soil	12" to 24" separation between trench bottom & water table - depending on soil type
Depth to Temporary water	24"	12" for equal distribution system 18" for serial distribution system
Maximum slope	25%	30%
Depth to coarse Grained material	36"	None
Depth to fractured Diggable rock	No standard	12"

Sand Filter Fees

Consistent with ORS 454.755(3), site evaluations will be honored for a 90-day period after denial for a standard system.

Where a sand filter application is made within 90 days of standard system denial, the fee will be $40 maximum (permit fee only).

Where a sand filter application is made more than 90 days after standard system denial, the site evaluation fee (maximum $120) shall be charged as well as the permit fee (maximum $40).

With the rules becoming effective January 1, 1980, the 90-day period will include those site evaluations back to October 1, 1979.

T. Jack Osborne:ak
December 12, 1979

Rec'd 12/14/79

December 13, 1979

902 ABERNETHY ROAD
OREGON CITY, OREGON 97045
(503) 655-8521

JOHN C. McINTYRE
Director

WINSTON W. KURTH
Assistant Director
DON D. BROADSWORD
Operations Director
DAVID J. ABRAHAM
Utilities Director
DAVID R. SEIGNEUR
Planning Director
RICHARD L. DOPP
Development
Services
Administrator

Environmental Quality Commission
c/o William Young
P.O. Box 1760
Portland, Oregon 97207

SUBJ: Final Draft of the Sandfilter Rules as Submitted to the Environmental Quality Commission

This office has thoroughly reviewed the latest draft of the proposed rules for sandfilters as an alternative subsurface sewage disposal system. While we do find there are some weaknesses with the rules, we find them to be basically sound and consistent with what experimental data is available. We would urge you to urge the Environmental Quality Commission to pass these rules as written. It is our opinion that any significant effort to lessen the standards in these regulations or to otherwise significantly modify these regulations would fly in the face of the intent of the law and probably could not be supported by data gathered under the experimental systems program or any other available research.

We look forward to working with the Department of Environmental Quality in administering these regulations.

Richard L. Polson

RICHARD L. POLSON, Chief Soil Scientist
Development Services Division

/kj

City of Corvallis
INCORPORATED JANUARY 1857

CORVALLIS CITY HALL
501 S.W. MADISON AVENUE
CORVALLIS, OREGON 97330

MAYOR'S OFFICE *(503) 757-6985*

December 7, 1979

Mr. John E. Borden
Manager
Willamette Valley Region
Department of Environmental Quality
1095 25th Street S.E.
Salem, OR 97310

Dear Mr. Borden:

On November 28, 1979, the Department of Environmental Quality held a hearing in Corvallis at the request of Evans Products Company pursuant to your permit number 02-2203, application number 1616, dated August 20, 1979. The hearing was held in regard to a permit application for an air contaminant discharge permit for the Evans Products Submicroporous Battery Separator Plant. Both the staff report discussing the contaminant, prepared October 22, 1979, and the testimony developed by concerned parties in the area raised some questions about the amounts of fugitive trichlorethylene (TCE) being released into the atmosphere.

Based upon the testimony given at the public hearing, the City Council at their regular meeting December 3, 1979, voted 5-4 to request the DEQ not to issue the final permit until the questions raised about the amounts of fugitive emission in relationship to the amounts captured in their pollution control devices are answered. It was the Council's position that additional testing and evaluation should clearly demonstrate that the public's health is not endangered. This request should not be construed as requesting a shutdown of the operation, only a delay until adequate assurances are given to the affected population group.

Thank you for your consideration in this matter. If you require additional information, please contact Mike Randolph at 757-6903.

Sincerely,

Alan Berg

Alan Berg
Mayor

AB:MMR:msm

cc: Mr. B.E. Mikulka
City Manager Pokorny
Public Works Director Randolph
Members of the City Council

BILL YOUNG

STATE OF OREGON

INTEROFFICE MEMO

DRAFT

DEPT

TELEPHONE

TO: William H. Young, Director

DATE: December 7, 1979

FROM Linda Zucker, Hearing Officer

SUBJECT: Public Hearing
Evans Products Company, Submicroporous Battery Separator Plant
Proposed Air Contaminant Discharge Permit

A public hearing of the Department of Environmental Quality's proposed Air Contaminant Discharge Permit for the Evans Products Submicroporous Battery Separator Plant was held on November 28, 1979. The hearing was begun at 7:15 p.m. at the First Presbyterian Church in Corvallis and was conducted according to the Oregon Public Meetings Law. Over two hundred people attended the meeting (many attended as part of course requirements at OSU).

Ted Groszkiewicz presented the Department's staff report on the proposed permit. The following verbal additions to the attached written staff report were made by Mr. Groszkiewicz:

1. A material balance had been performed by Evans Products Company showing that 95+% of the process trichloroethylene is recovered and recycled. The 100,000 lbs. of TCE lost per month is five percent of the process throughput. Ninety-five percent of that (five percent) loss is in the form of fugitive emissions. Five percent of that (five percent) loss is from pollution control equipment.

2. Ambient sampling conducted under poor mixing (stagnant air) conditions showed 1 to 8 parts per billion TCE in the air in the vicinity of the plant and 1 to 5 parts per billion in the residential areas south of the plant. Mr. Groszkiewicz stated that DEQ would have had published their concerns had emissions reached the parts per million level.

3. Four additional ambient air samplings would be made in the plant vicinity and neighborhood during the next year.

DRAFT

4. A drying oven whose emissions are now uncontrolled would be connected to air pollution control equipment. A 20-25% decrease in overall emissions has been projected.

5. A fugitive emission reduction plan would be added to the permit.

Evans Products Company testified that the Company would accept the terms of the permit.

Sixteen local citizens testified; two of them testified twice. A list of names and addresses of people testifying is attached. Written testimony was received from several people who also gave verbal testimony; from a member of the Corvallis City Council who did not give verbal testimony; and from one additional member of the public.

A summary of the contents of the public testimony follows:

Number of Persons Voicing Concern	Major Points of Citizen Concern
1	Having to breathe pollution is a violation of human rights
2	Critical of DEQ's handling of Evans matter (gross negligence and incompetence)
2	DEQ should not issue permit at all
2	Requesting 25 ppm ambient concentration limit for TCE
1	Too much emphasis on carcinogenic nature and not enough on TCE metabolism
2	Claim to have experienced headaches, nausea, and dizziness due to TCE
1	Cannot use yard due to TCE concentration
1	OSHA standards limit to lower levels than DEQ's permit

DRAFT

5	Delay permit until material balance done and studies done, until fugitive emissions are reduced
1	DEQ more interested in protecting industry than people
1	Do away with DEQ
2	DEQ not interested in Southeast Corvallis
2	Evans Products is not in an industrial park
1	Questions should be allowed
2	The majority of emissions are fugitives
1	Law is being disregarded
1	Evans should eliminate fugitives
3	Evans is pulling wool over DEQ's eyes

One person submitted his testimony in the form of questions. Those questions and the answers given are attached to this report.

The hearing was concluded at 8:50 p.m.

Your hearing officer's recommendations appear in a separate document.

Attachments:
Partial list of attendees
List of people testifying
Questions by Art Boyle
Written testimony

Questions for DEQ

A. Questions involving the amount of TCE being released:

1. Does the monthly use rate mean that that much TCE is being lost?

   Ans: Yes (Loss queries were recapped [illegible])

2. Does the company ship waste TCE from the plant or are they just adding TCE to the process to replace that which is lost?

   Ans: Replacing tce which was lost (no shipping of TCE out)

3. How long has the industrial process involving TCE been in operation?

   Ans: 1 yr since Jan 78 [illegible] process [illegible]

4. What is the total amount of TCE that has been used by Evans Products from the start of the process to this month?

   Ans:

Write

B. Questions involving level of TCE Control:

1. What was the amount of TCE being lost from the carbon beds at the time of the first source test?

   Ans: Not Quantified but at a higher rate than present.

2. Why wasn't a materials balance study completed before proposing to issue the permit?

   Ans: It was and is included in the hearing record

3. Why didn't DEQ require a source test for TCE and phosgene from the second exhaust point from the drying ovens?

   Ans: There is no second exhaust point. There is a secondary oven which was tested and will be controlled

4. What is the temperature within the drying ovens?

   Ans: ~140°F

5. Has DEQ studied level of TCE control and change in cycle time for the carbon beds if additional TCE from the drying ovens are exhausted through them?

   Ans: ~~Presuming the additional~~ Yes two sets of beds are in place. Only one operates now.

6. Why wasn't the second exhaust from the ovens included in this permit?

   Ans: ~~There is no second exhaust~~

7. Will the proposed permit have to be changed later to increase the limits of TCE emissions from the carbon beds if a second source is exhauted through them?

   Ans: Yes

8. DEQ's charge to Evans is to provide the "highest and best practicable" removal of TCE vapors. Does DEQ consider the loss of 100,000 pounds of TCE a month to be the highest and best practicable removal of TCE vapors?

   Ans: DEQ considers the 95% efficiency rate of the carbon beds to be "highest and best practicable". Fugitive emissions (the bulk of the 100,000 lbs) are handled on a case by case basis.

QUESTIONS FOR DEQ

E. Questions involving the oil used in the process:

1. What happens to the 150,000 gallson of rubber extender type oil that is used in this process?

   Ans: It stays in the product

2. How much waste oil is shipped out each month?

   Ans: About 1 55 gallon drum of ~~bett collected~~ sludge per month is held for recycling

3. Does any of the oil escape into the waste water going from the battery separator plant to the treatment ponds?

   Ans: NO

4. Has DEQ investigated the process involving the oil to insure that none is being burned or dumped in violation of existing regulations?

   Not Asked

   Ans:

F. Questions involving TCE in the waste water:

1. Has DEQ found evidence of TCE in sumps which drain effluent from the submicro plant to the treatment ponds?

   Ans: Yes

2. Does steam involved in the cleaning of the carbon adsorption beds contain TCE which when it condenses and could some some of this TCE end up in the treatment ponds?

   Ans: Yes

3. Did there used to be a pipe line from the Evans Plant to the middle of the Willamette river which dumped effluent directly into the river?

   Ans: [illegible] — searching files. Will find out + make written [illegible]

G. Questions involving violations of their permits and noise standards:

1. Has DEQ investigated why Doctor Zenezak did not seek a pollution permit for the new process involving TCE and why his position was "that there are no emissions" as quoted in the 26 April '79 issue of the GT?

   Ans: NOV/ACP was issued for violation of [illegible] Rules

2. Why did DEQ fail to investigate the anonymous note they received on 13 February stating that 300 to 500 gallons of TCE was being lost into the air a day? It was not until two months later that any action was taken and that was only after accidently discovering the new process?

   Not asked

   Ans:

3. Has there been a civil penalty assessed against Evans Products for emitting thousands of pounds of TCE in violation of state statutes.

   Ans: ~~No determination these~~ No civil penalty because there is no finding that discharges of TCE are against State statutes

4. Evans Products has numerous violations of their waste water and air contaminant discharge permits and noise standards. How much of a civil penalty has been assessed against Evans Products by DEQ in the past 2 years?

   NOT asked

QUESTIONS FOR DEQ

C. Questions involving ambient air testing and computer modeling:

1. Why didn't DEQ do a computer model of total emissions from the plant instead of about 5% from one source to indicate level of public exposure?

   Ans: Model is for point source. Testing was done

2. In the opinion of DEQ is one days testing of the ambient air outside the plant, for TCE, statitically significant and that it can be used to determine the exposure level?

   Ans: Yes Statistical significance is difficult to achieve (depends on the interpreters point of view)

   Proposed addition: Samples were taken on a poor mixing day [illegible]

3. TCE can decompose under a number of environmental conditions and may degrade to more hazardous compounds such as phosgene and dichloroacetylene. TCE vapor around an open flame or even drawn through lighted cigarettes may degrade to phosgene and carbon monoxide. Did DEQ analyze the ambient air outside the plant for hazardous compounds such as phosgene or dichloroacetylene.

   Ans: ~~TCE~~ TCE was found at too low levels ~~levels~~ for those compounds to be tested (~~[illegible]~~ ambient TCE levels were reviewed.

D. Questions involving the background investigation and search of the literature:

1. Did anyone from DEQ contact EPA to get the latest information on TCE such as risk factor for cancer in the community, hazards, toxicity, or the state of the art of control of TCE emissions?

   Ans: Yes

2. Did anyone from DEQ contact OSHA for the latest information on TCE such as its potential at a carcino[illegible] on job sites, toxicity, etc.

   Ans: Yes

3. Did anyone from DEQ do a literature review for the latest information on TCE

   Ans: ~~Yes~~ ~~but~~ not a key word search Through [illegible]?

4. Does DEQ consider TCE to be a potential carcinogen for humans?

   Ans: DEQ accepts current literature but has no medical opinion

5. The condensor system and carbon beds should be considered as TCE recovery systems designed to save money and not for pollution control. Did Evans Products apply for a federal tax credit on this equipment?

   Ans: No Tax Credit since construction was prior to approval of the project, was ineligible for State Tax Credit

City of Corvallis

From the Desk of:

INGE McNEESE
Councilor

Department of Environmental Quality November 28, 1979

Thank you for holding this public hearing and affording us an opportunity to comment on the proposed permit regulating the TCE emissions from the expanded Battery separator plant of EVANS CO. in Corvallis.

Public participation in the permit-issuing process, especially when comments are of a critical nature, have in the past been interpreted as obstructionists efforts by people hostile to ALL industry, possibly ALL business ... opposed to economic development, growth, the free enterprise system ... and the American way of life.

I must strongly disagree with this perspective. I see public participation as an expression of the public's interest, protected by America's democratic tradition and ... as a safety check in the negotiations between the regulators and the regulated.

It is a positive role, in my view. Let us not forget that without the challenge from a Benton County Citizen group regarding the fiber glass emmission standards, the general public would be less informed today ... the polution control equipment in the fiberglass factory would be less efficient and the legal levels of fiberglass emissions higher. Without public involvement, chances are we would not be here today. Let us not forget, that it was members of the public who brought these emissions to the DEQ's attention and prompted the drafting of this permit.

This legally mandated public review today is not quite as meaningful for me as it could have been. There are two reasons why this is so:

(1) Although requested, I have not received a copy of the proposed permit for TCE emission standards;

(2) Unless there is convincing scientific evidence to the contrary, the DEQ intends to issue the permit as proposed.

(In my comments I make the assumption that the newspaper article reflects accurately, both the provisions of the permit and the intent of the DEQ).

Recognizing that there are no standards for TCE emissions beyond the occupational levels, I can take no comfort and put no confidence in this permit. Philosophically it represents a continuation of the damnable premise in pollution control, that a substance is safe until proven harmful. The comparison to the occupational standards is not reassuring to me. I know that traditionally those levels have been much higher than the levels for a population at large.

The intent of the permit appears not so much to keep the discharge of TCE to a minimum, but to minimize its concentration. Is the DEQ still operating under the slogan: Dilution is the solution to pollution? And if we are to put our faith in dispersal, why is there no staff recommendation for the height of the stack?

Inga C McNeese

FRED W. DECKER, PH.D.
SCIENCE CONSULTANT
Meteorology, Physics, Education, Exhibits

827 N.W. 31st Street
Corvallis, Oregon 97330, U.S.A.
Phone (503) 753-7271

28 Nov. 1979

Memorandum on likely TCE concentrations in the air under some typical conditions.

Basic data: Air density is about 0.078 lb per cubic foot. To find the total mass of air into which TCE is diluted, first compute the volume of the air, and then multiply by this density.

Example No. 1. Take the case of slow movement of air past a building that is 100 feet wide broadside to the wind, the building being 30 ft high. During a cool night the downwind wake of the structure will be about 100 ft wide and up to 30 feet high. Suppose the wind moves at a slow speed of 0.5 mph. Then, in one hour this air downwind of the building will fill a box 30 ft high, 100 ft wide, and 2640 ft long, hence having a volume of 7.9 million cubic feet or a mass of 0.616 million pounds. If 200 pounds of TCE are uniformly mixed throughout that volume of air, the concentration of TCE in the air will be 325 parts per million. If the fugitive emissions occur from one point or a series of points close to the ground, and if the airflow is smooth and not deeply stirred in the wake of the building, the full 30 ft height of the wake would not be occupied by TCE in mixture, and then the concentration of TCE at ground level would possibly rise to two or three times this concentration, or even more.

Example No. 2. Take the case of TCE emitted into a stream like the Willamette in the summer when flowing at 60 ft/min. Being insoluble in water, if the TCE eventually all comes to the surface and there evaporates into the air above the river, we can expect that when the river is cooler than the surrounding land the gas will hover in air above the river water in a layer of air perhaps 10 ft deep. In this case downstream someplace where all the TCE has evaporated from the stream the volume of air containing the TCE will be a "box" 10 ft deep, 300 ft wide, and 3600 ft long, in which the TCE entering the river in one hour will have evaporated and be held in this air. This volume is 10.8 million cubic feet, containing 0.842 million pounds of air. If in one hour 200 lb of TCE were to enter the river, this would result in a TCE concentration in the air above the river under these conditions of 238 parts per million.

Conclusions: There are perfectly plausible conditions under which the emission of TCE directly into the air at the source or into the air from a stream into which the TCE might be released that would yield concentrations of TCE exceeding 200 parts per million concentration in the air at the low levels occupied by people on land or on the water. Precautions should be taken, therefore, to assure that all fugitive emissions are gathered and released high in the atmosphere to assure the required dilution in much larger volumes of air than these examples provided.

Fred W. Decker

Department of Environment Controll,

Please try to find it in your hearts to take in consideration to voice of the people, the Residents of Corvallis. We are tired of being guinne pigs, until tests prove that it is not harmful to your health, T.C.E. should be banned from ~~exposed~~ to the public - Why did Evan's Products get away with not having a permit? What were you doing? Were they fined for this Violation? Why is the environment system not public information? Why did you hold this public meeting after you had drafted a proposed permit instead of getting public feedback before Thank you for considering our views and I would appreciate it if you could try and answer my questions.

Jaime Phelps
1935 S.E. De Bord St.
Corvallis, Or. 97330

Hello my name is Fran Recht I reside at 905 NW 31st st in Corvallis while I am generally in favor of issuance of the discharge permit to Evans Product Co ^ I Am withholding my support of such a permit until I have answers to some of my questions.

I have been reading information about Trichloroethylene (generally related to the work environment) and have become concern about some contaminants of TCE + some of its breakdown products. I am not sure of the equilibriums that exist or the concentration of these substances that may be found at the level of allowable TCE discharge at the Evans Products plant + or at the level of the fugitive discharge would like some answers or some studies done + possible monitoring for these compounds.

TCE is produced from tetrachloroethane by heating w calcium hydroxide. Tetrachloroethane may be present as an impurity in technical products (2)

(It has a vapor pressure of 11 mm Hg) The 1963 Handbook of Poisons by Robert Dreisbach (Prof of Pharmacy Stanford School of Med) says tetrachloroethane is the most poisonous of the chlorinated hydrocarbons the maximum allowable conc is 5ppm. It can cause cell death with delayed onset in the liver + kidney + is an irritant of the eyes, nose, causes headaches, nausea, vomiting, abdominal pain etc chronic symptoms from inhalation or skin absorption cause headache, tremor, drowsiness, peripheral paresthesia or anesthesia, How much tetrachloroethane will be present?

TCE may decompose in the presence of excess water to HCl (hydrogen chloride) + other products (1) (2)

TCE also decomposes in presence of hot metal or ultraviolet radiation forming products that include chlorine gas, hydrogen chloride, + phosgene gas (4) p 217

Federal occupational standard for chlorine is 1ppm (3mg/m³) NIOSH has recommended a ceiling limit of .5 ppm for a 15 minute sampling period

Chlorine reacts w body moisture to form acids. It is itself extremely irritating to skin, eyes (7-8ppm), + mucous membranes (.2-16ppm) + throat 15 ppm & may cause corrosion of teeth. Prolonged exposure to low + concentrations may produce chloracne (6) p 317

The threshold limit value 1ppm is set at a level to minimize chronic changes in the lungs + erosion of the teeth (5)

when TCE is exposed to sunlight or heat from the ovens how much Cl_2 will be in the air?

(1) safety manual for handling + disposal & toxicity + hazard data. T55.3 H3155, 1977 c.1

(8) Chemical Hazards of the Workplace Nick Proctor PhD + James Hughes MD 5.B
Lippincott Co. Philadelphia

Hydrogen chloride to be produced on exposure of TCE to UV light or heat
the threshold limit value is set at 5ppm (2) (7 mg/m³)
It is a strong irritant of the throat + GI tract (9)
The TLV is interpreted to be sufficiently low to prevent toxic injury
but on the borderline of severe irritation. (6) p 729 How much hydrochloric acid
will be present in the air? Will this be a significant contribution to acid rain"?

Cl
C=O
Cl

Phosgene gas is ~~possibly the~~ the compound I'm most concerned with
The permissible exposure limit (1977) is .1 ppm (8) (~2 mg/m³ (6))
It is a severe respiratory tract irritant, causes conjunctivitis, tearing, upper
respiratory tract symptoms. Chronic exposure may cause irreversible
pulmonary changes of emphysema + fibrosis (4)
Animal experimentation has shown an increased incidence of chronic pneumonitis + acute
+ fibrinous pneumonia from exposure to phosgene (4)

It is generally accepted that phosgene may cause chronic lung disease in
man. There are no quantitative data available on what dosages might cause
permanent lung damage in man the TLV of .1 ppm has been recommended
because of the irritating effect of the respiratory tract at levels slightly
above this value. (6) p 208

~~I~~ what might the phosgene concentration be at the maximum
level of emission of TCE?

Thank you for your attention + hopefully your answers. Perhaps monitoring for all these
compounds in the immediate AREA would be advisable + the permit withheld until this is done

References

(1) Clinical Toxicology of Commercial Products Gleason Gosselin Hodge + Smith 1969 (3rd edition)
(2) ~~Patty~~ Industrial Toxicology Fairhall Williams + Wilkins 1949 RA1213 F2
(3) ~~Bird~~ Handbook of Poisoning Robert Dreisbach, MD, PhD 1963 Library = RA1211 D7
(4) Occupational Diseases A Guide to Their Recognition Revised Ed June '77
US Dept of Health, Ed. + Welfare Public Health Service DHEW Pub No 77-181 HD7263 U68 '77
(5) Dangerous properties of Industrial Materials N. Irving Sax, Van Nostrand
+ Reinhold Co NY T55.3 N353 1968
(6) Documentation of the Threshold Limit Values for substances in Workroom Air
(with supplements for substances added or changed since 1971) American conference of governmental
Industrial Hygienists 3rd ed. 1971

continued

Table 1. Analysis and genotoxic properties of particulate metallic compounds

Metal	Analysis[a]	Genotoxicity[b]
Beryllium	ES, SPF	C, M
Cadmium	AA, ES, FAAS, NA	C, Cl, M, T
Chromium (II)	NA	M
Cobalt	NA	C, M
Copper	NA	M
Iron	AA, NA, XRF	C, CC
Lead	AA, ES, FAAS	C, M
Magnesium	ES, NA	CC
Manganese	AA, NA, XRF	C, M
Mercury	AA, AE, NA	CC
Molybdenum	AA, NA	C, M
Nickel	AA, NA	C, M
Silver	AA, NA	C
Titanium	AA, NA, SSMS, XRF	C, CC
Vanadium	AA, NA, SSMS, XRF	C

[a]AA = Atomic absorption, AE = Atomic emission, ES = Emission spectroscopy, FAAS = Flameless atomic absorption spectroscopy, NA = Neutron activation, SPF = Spectrophotofluorimetry, SSMS = Spark source mass spectroscopy, XRF = X-ray fluorescence.

[b]C = Carcinogen, CC = Cocarcinogen, Cl = Clastogen, M = Mutagen, T = Teratogen

c air pollutants

	Genotoxicity[b]
	PC, PM
	C?, Cl, M
	PM
	?
	C
	C, M
	PC, PM
	PM
	C?, M
	C, Cl, M
	PC, PM
	PC, PM
	PC, PM
	PC, PM
	PC, PM
	?

Table II (Cont'd)

Pollutant	Analysis	Genotoxicity
	Vapors	
	C_0	
Hydrazine + 114°	CL, GC, SPF	AC, C, M, T
	C_1	
Carbon tetrachloride + 77°	GC-MS	C, M
Chloroform + 62°	GC-MS	C, M
Methyl hydrazine + 87°	CL, GC, SP	C, T
Methyl iodide + 43°	GC-MS	C
	C_2	
Acetaldehyde + 21°	GC, SP	M
Aziridine + 57°	GC, HPLC, SP	C, Cl, M
Bis-chloromethyl ether + 104°	GC-MS, HPLC	C
1-Bromo-2-chloroethane + 107°	GC-MS	C
Chloromethyl methyl ether + 59°	GC-MS, HPLC	C
1,1-Dimethylhydrazine + 63°	CL, GC	C, T
1,2-Dimethylhydrazine + 81°	GC	C, T
Dimethyl sulfate + 188°d	GC-MS	C, Cl, M
Ethylamine + 16.5°	GC, IC	PM
Ethylene bromide + 132°	GC-MS	C, M, T
Ethylene chloride + 84°	GC-MS	C, M
Ethylene sulfite	GC-MS	M
Ethylene sulfate	GC-MS	C
Ethyl iodide + 72°	GC-MS	C, M
Trichloroethylene + 87°	GC-MS	C, M
Vinyl bromide + 16°	GC-MS	C, M
Vinylidene chloride + 32°	GC-MS	C, M

28 November 1979

TO: Department of Environmental Quality

FROM: Charles A. Boyle, Route 4 Box 389, Corvallis, Oregon

SUBJECT: Air Contaminant Discharge Permit for Evans Products' Battery Separator Plant

I am Charles A. Boyle and I am concerned about the large amount of trichloro ethylene (TCE) being used by Evans Products. DEQ has only addressed the loss of 7% of the TCE or 43 tons a year which comes from the carbon beds. It is the other 93% or 557 tons that disappears and is unaccounted for that concerns me. I do not feel that DEQ has sufficient information to say that the health of citizens in the community will be protected by the proposed permit.

DEQ should delay issuing the permit until the annual loss of 1,200,000 pounds of TCE can be accounted for and that this loss does not jeopardize the health and well-being of the public.

DEQ should take the following action prior to issuing the permit.

1. Do a materials balance study to account for the loss of TCE.
2. Do a statistically reliable ambient air testing study under varied weather conditions to determine the levels of public exposure to TCE.

These two studies should be done by independent consultants and the costs paid by Evans Products. It is incumbent upon Evans to prove that the public's health is not being jeopardized. The taxpayer should not have to pay in order to prove that the air he breaths is safe.

Charles A. Boyle

Charles A. Boyle

From what I have heard this evening and know about the process involving TCE, I urge the DEQ to delay issuing the permit until there ~~has~~ been a complete investigation into the loss of such huge amounts of the toxic substance, and that the public health and well being is not being jeopardized. In my opinion, The handling of this matter demonstrates the gross negligence, incompetence, and disregard of the public interest ~~and environment~~ by the Department of envirnomental quality. It appears to me that the DEQ is more interested in protecting ~~the "bottom line," of~~ industry than the public health and well-being. The handling by DEQ of repeated violations of pollution standards by Evans Producs ~~by the DEQ~~ brings the whole pollution control program into disrespect and leaves many unanswered questions.

With ~~the~~ this kind of pollution control and enforcement by DEQ, it would be better to let industry regulate itself. This is what appears to be occuring with Evans products in Corvallis. ~~A~~ any way! We should do away with DEQ. This would at least save the taxpayer millions of dollars and not lull the public into a false sense of security that their health and the environment are being protected by DEQ

YOU HAVE ALREADY ISSUED PERMITS TO FOR EVANS TO DUMP TONS OF ~~MICRO SCOPIC~~ FIBERGLASS PARTICLES ON MY REAL-ESTATES. YOU ARE ALLOWING THEM TO ILLEGALLY DUMP TONS OF ~~THE~~ WOOD FIBER ON MY PROPERTY. YOU ALLOW THEM TO MAKE NOISE ILLEGALLY AND KEEP THE NEIGHBORHOOD AWAKE ALL NIGHT. AND NOW YOU ARE GOING TO ISSUE ANOTHER PERMIT TO LEGALLY ENDANGER OUR HEALTH. I ASK YOU, THE DEPT. OF ENVIR. QUAL. WHY DO YOU HATE US SO BAD?

~~HAVE YOU FORGOTTEN THAT THIS DEPT. IS SUPPOSED TO TAKES, THAT MAKES THE TAXPAYER YOUR EMPLOYER. YOU ARE WORKING FOR THE PEOPLE NOT FOR INDUSTRY.~~

I URGE YOU NOT TO ISSUE THIS PERMIT, NOT NOW, NOT EVER; FOR IF YOU HAD DONE AN ENVIRONMENTAL IMPACT STUDY YOU WOULD REALIZE THAT YOU DON'T DUMP TOXIC CHEMICALS INTO THE AIR MIDWAY BETWEEN A RESIDENTIAL NEIGHBORHOOD AND THE DOWNTOWN AREA.

I ASK YOU, PLEASE, TO DO THE JOB THE GOVERNMENT ORIGINALLY SET UP FOR. I ASK YOU TO PLEASE BE THE DEPARTMENT OF ENVIRONMENTAL QUALITY AND NOT THE DEPARTMENT OF INDUSTRIAL PROTECTION, OR DIP FOR SHORT.

YOU WOULD NOT WANT ME TO DRIVE WHEN I AM DRUNK BECAUSE I AM A POTENTIAL HAZARD ON THE ROAD. WHAT IS THE DIFFERENCE WITH INDUSTRY. WHY DO THEY HAVE TO A PROVEN HAZZARD BEFORE YOU WILL LISTEN

November 27, 1979

Testimony for the Hearing on Evans Products before DEQ:

We are appalled to learn of the TCE which is being discharged into our community by Evans Products. TCE is a known carcinogen.

We feel that the DEQ should take immediate action to

1) determine what volume is being discharged,

2) determine where the discharge is going, and

3) take the necessary steps to control it.

Sincerely,

William A. Foster

William A. Foster

Portia B. Foster

Portia B. Foster

1161 N.W. Taylor Avenue
Corvallis, Oregon 97330

unterschrift

ATTENDANCE REGISTER

Name	Address
Penny Gillispie	38270 River Dr. Lebanon
Susan C. Hasuike	329 SW 10th #8 Corvallis
Rosemary Ho	329 SW 10th #8 Corvallis
Mark Whitaker	1415 N.W. Hillcrest Dr.
Robert Shepard	435 S.E. Atwood, Corvallis
Carolyn Haggerty	204 NW 9th/10 - Corvallis
Jeff & Susie Pochop	2026 NW Christopher Corvallis
John Beaumier	0121 NW Moroe Corvallis
B. E. Mikulka	2917 NW Angelica Corvallis
J. R. Mangham	2035 Glendale Ave., B.R. LA
R. V. Cray	1825 ~~Impala~~ Tustin, Ca
Marvin J. Marcotte	685 S.E. Vera Corvallis, Ore
Fran Reelt	905 NW 31 Corvallis, Or
Wayne Baldwin	500 SW 35th
W. B. Snyder	1360 SE Crystal Lake Dr.
Stan Taylor	2340 NW 23rd
John Price	2111 NW Harrison
[illegible]	[illegible] Corvallis
John P. Gargwisch	2011 NW [illegible] Corvallis
Joanna L. Gargwisch	ditto
[illegible] Brooks	619 S.W. 15th
Kent E. Howe	2124 NW Tyler
Brian Hall	440 NW 23rd
George Titus	32183 Oakville Rd
Karen Buckheit	437 NW 11th
Jami Jurya	437 NW 11th
Fred Stiles	
Jan Huff	1915 SE Bethel, Corvallis
Dave Schmedding	Rt 2 Box 255 Corvallis
Brent Lawrence	2527 D SW Pickford Corvallis
Mark Widmer	2808 Arnold Way
Jim Mattison	"

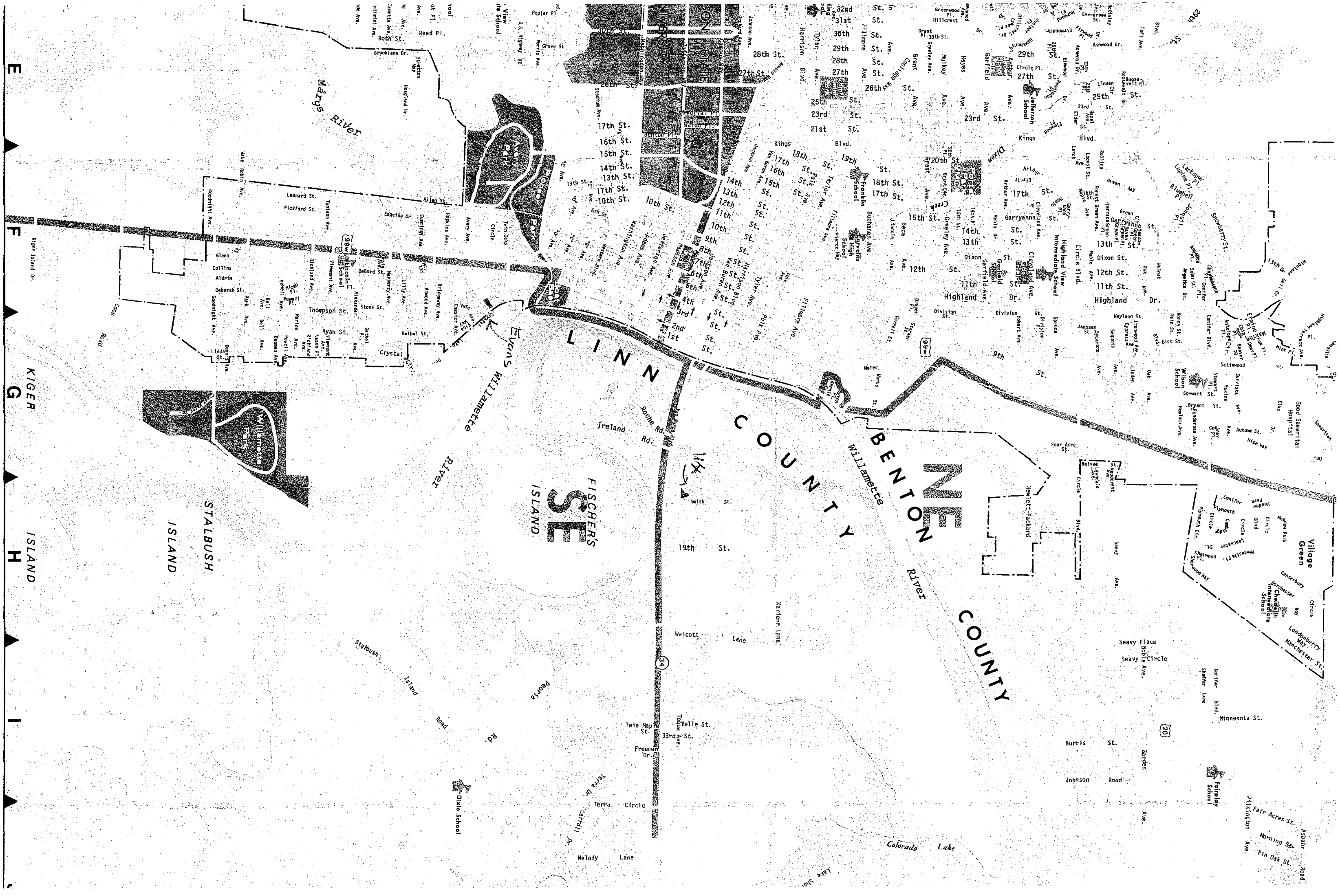
Kristi Heuter	2480 NW Rolling Green #47
Diane Stapleton	1665 NW Harrison Corvallis, OR
Jerry Vernon	652 SE 32nd #16 Albany OR
Erin Smith	361 NW 26th
Tom Bazin	2163 NE Jackson
Tom Buckingham	240 N.W 9th
Craig Watts	1673 NW Jackson
Marilyn Gould	2711 NW Johnson
Joe Welage	620 NW 21st Apt 17
Greg Casey	2130 NW Fillmore
Eugene Johnson	734 N.W. 34th
Carl Johnson	" "
Matt Jensen	3240 NW Fillmore
Tim Eaton	1624 N Kings
Susan V. Zeisler	1325 N.W. Van Buren
Bruce Watts	824 [illegible] Hall
Tammy Zpil	[illegible]
Patty Reefer	257 NW 25th
Dennis Pakulak	2837 NE Sherwood Pl. Corvalli
Nancy Warren	3953 NW Walnut PL. Corv
MIKE BUTLER	5632 N.W. Tyler Pl. Corv.
Bill Denison	Rt 1 Box 226 [illegible]
Tim Leung	1403 [illegible] Apt 4
Bill Boebel	2773 NW Skyline
Jon Pittman	645 NW 23rd
Bill Dennett	659 SW Jefferson
John Akiyama	155 NW Kings
Stu Peterson	309 N.W. 26th
MATT LEEDING	1435 NW Kings
Beth Zupan	350 NW 23RD
Daniel Baeoricke	905 NW 31st
Fred & Becky Eberle	965 NW Garfield #2

Mark Fitzgerald	320 N.W. 16th
Dick Knorr	1654 NW. VAN BUREN.
Scott Fahey	410 NW 25th
Patrick [illegible]	1360 NW Van Buren
Brent [illegible]	345 SE Bridgeway
SAlly Kidder DAvis	933 SE Alexander Ave.
Jenny Dawson	4490 NW. Crescent Val. Dr.
Martha Waymire	2685 NW Taylor
DAVE SLOOP	1027 NW 35th
Bob Ulrich	1353 NW Beca
Todd SEVERSON	1210 NW 11th
Portia Foster	1161 NW Taylor
Steven Crawford	265 S.W. 11th
DAN THOMSON	2454 SE Powell PL
Joe LOBBATO	625 NW 31st
Julie [illegible]	[illegible] 15th
Vicki Edwards	204 NW 9th #3
Charles [illegible]	1156 SW [illegible]
Craig Bush	319 NW 16th
[illegible]	440 NW 25th
A. [illegible]	Rt 1 Box 40
M. Zemyak	— "
Dan West	2420 SW PICKFORD
Betty Gustafson	625 S.E. Chester
Ed Galvin	835 S.E LILLY
Fred Craus	" "
BILL MASON	962 SE BETHEL PL
Henry Tu	610 NW Merrie
Ann [illegible]	465 NW 23rd
Bill Christensen	4465 OMEGA Pl #2
Sam J Walker	1485 NW 15th
Clarence W. George	1430 NW Division Apt 4

NAME	ADDRESS	
Ron McNeese	815 ATWOOD	(by DSC)

Pam North	357 NW 25th
James Charter	West Hall 306.
Oley A. Boedtker	2760 NW Johnson
alec evans	1510 S.E. Alexander, Corvallis
[illegible]	
Mark Boedtker	2760 NW Johnson Ave.
Floyd B. McFarland	3230 NW Deer Run
Susan Ayala	465 Harrison
RW Boubel	Corvallis, Or.
Steven J. Hines	937 Hawley Corvallis.
Dave Williams	1985 SE Crystal Circle
Lorette McIntyre	3478 SW. Hillwood Pl.
Matt Nemé	330 N.W. 23
Mike Anderson	314 N.W. 6th
Steve Brown	2929 NW Harrison
Carrie Bruton	2685 NW Taylor
Stewart Lebair	1226 SW 15th
Crawford	120 NW 13th
Leo Green	2929 NW Harrison
Ron Myles	319 NW 9th
Ginnie Maloney	4004 Witham Hill Dr #162
Cynthia Allman	" " " "
Deborah Dias	West Hall, Rm 402
Julia Perala	205 NW 23
Jaime Phelps	1935 S.E. De Bord St.
Patrick Canan	1830 S.W. Whiteside Dr.
Carl Gustafson	625 S.E. Chester
Hugh Trost	3185 SW Kings Row Ave
Yvonne Kelley	465 NW 23rd
DAVID & GLENDA DEVONSHIRE	1511 SW 53rd
Cynthia Barnett	1230 NW Kings #20
Patti Cody	645 NW 23rd

Andrew Goldsmith 3205 N.W. Deer Run Corvallis
Kenneth C. Ratliff 2230 N.W. Elmwood Corvallis
Ewa Z. Ratliff " " " "
Mike Miller 321 NW 25th Corvallis
Barbara Fox 1024 Alder Creek Dr.
Bob Scanlan 313 Bloss Corvallis
Jim Dodds 933 Bloss OSU
Scott Becker Wilson 2135 Water Albany
Chuck Boyle 2125 N.W. Highland, Corvallis
JEFF JACOBS 433 SW. 5th CORVALLIS
Marsha Wilson 3635 NW Hayes, Corvallis
Pat Cardman 820 Finley Corvallis
ANDY STANDERFER 2655 NW HIGHLAND DR. #45 CORVALLIS



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Marys River
Willamette River
LINN COUNTY
BENTON COUNTY
NE
SE
FISCHER'S ISLAND
STALBUSH ISLAND
KIGER ISLAND
Kiger Island Dr.
Coon Road
Stalbush Island Road
Peoria Rd.
Ireland Rd.
Roche Rd.
Smith St.
19th St.
Walcott Lane
Karlene Lane
Twin Maple St.
Velle St.
33rd St.
Freeman Dr.
Terra Dr.
Terra Circle
Carroll Dr.
Melody Lane
Colorado Lake
Dixie School
Willamette Park
Avery Park
Pioneer Park
Allen St.
Leonard St.
Pickford St.
Edgeing Dr.
Thompson St.
Ryan St.
Crystal
Bethel St.
Stone St.
Lincoln School
Orleans St.
Franklin School
Corvallis High School
Jefferson School
Garfield School
Highland View Intermediate School
Wilson School
Cheldelin Intermediate School
Fairplay School
Good Samaritan Hospital
Village Green
Hewlett-Packard
Kings Blvd.
Highland Dr.
Dixon St.
Division St.
9th St.
Water Works
Four Acre St.
Seavy Ave.
Seavy Place
Seavy Circle
Noble Ave.
Burris St.
Johnson Road
Garden Ave.
Conifer Blvd.
Shaffer Lane
Minnesota St.
Fair Acres St.
Morning St.
Pin Oak St.
Pilkington Ave.
Londonberry Way
Manchester St.
Canterbury
Dorchester Way
Circle Blvd.
Walnut
Samaritan
99W
20
34

Fiber Products Group
1115 S.E. Crystal Lake Dr.
Post Office Box "E"
Corvallis, Oregon 97330

Telephone: 503/753-1211

EVANS PRODUCTS COMPANY

December 17, 1979

Oregon Environmental Quality Commission
P. O. Box 1760
Portland, Oregon 97207

Gentlemen,

From an article in the Gazette-Times, Corvallis, of December 14th, 1979, we understand that the President of the City Council of Corvallis and two friends requested a delay in Department of Environmental Quality Action on an Air Contaminant Discharge Permit for our Submicro Plant.

Please have your staff contact us for any information they may require to study the level of emission from our Plant to make their recommendation to you in January.

In order for us to respond to the complaints submitted we would appreciate to have a transcript of the presentation by the three above representatives as well as a copy of the petition.

In addition, we would like to know whether the signed petitions are a matter of public record and therefore whether we could obtain copies of all the petitions.

Since we have a signed agreement with the City of Corvallis, acting also for the Friends of Benton County, which sets up a mechanism to settle local complaints between our neighbors and our Company having the names of our neighbors who signed the petitions would help us to discuss their concerns with them directly.

Again we like to assure you of our full cooperation in this matter.

Sincerely,

EVANS PRODUCTS COMPANY
Fiber Products Group

B. E. Mikulka
Vice President - Research,
Development & Environment

BEM:jle

Attachments: Copy of G. T. Article
Copy of City-County-Evans Agreement

cc: Commissioners of Benton County
Mr. Alan Berg, Mayor of Corvallis

—Gazette-Times, Corvallis, Oregon, Friday, December 14, 1979

State agency to study Evans TCE emissions

PORTLAND (AP) — The Oregon Environmental Quality Commission directed its staff today to study the level of trichloroethylene (TCE) being emitted from an Evans Products Co. plant in Corvallis and to make recommendations on a proposed emission permit at the commission's meeting in January.

The action came after a citizens group, Friends of Benton County, submitted petitions containing signatures of more than 2,200 persons.

The group requested a delay in Department of Environmental Quality action on a permanent permit for the TCE emissions. The commission controls environmental department policy under Oregon law.

The citizens group, represented by Charles Boyle, Marvin Marcotte and Inge McNeese (a Corvallis City Council member), said the Evans battery separator manufacturing plant's actual emission of TCE is higher than allowed in Evans' temporary permit.

Evans' representatives did not testify before the commission.

Boyle said the permit addresses only about 5 percent of the TCE emissions, estimated by the company at from 600 to 720 tons a year.

The chemical, a colorless liquid that will not dissolve in water, is suspected of causing cancer, Boyle said.

Although there is no legal limit on TCE allowable in the air of a residential area, for example, comparison has been made to the 100 parts per million allowed for continuous exposure inside factories.

Twelve samples taken on Nov. 2 at six sites near the Evans plant showed TCE concentration at a fraction of the 100 ppm level. But Boyle said the test sites generally were upwind of the plant.

"to"

CONSOLIDATED AGREEMENT

This Consolidated Agreement is made on July 11, 1979, between the City of Corvallis, a municipal corporation (hereinafter called "the City"), Benton County, a political subdivision of the State of Oregon (hereinafter called "the County") and Evans Products Company (hereinafter called "Evans").

Preamble:

A. The City and Evans entered into an agreement on May 9, 1979, a copy of which is attached hereto as Exhibit A (hereinafter referred to as the "City Agreement") relating to Evans' Crystal Lake Drive manufacturing operations (hereinafter referred to as "the Corvallis Complex");

B. The Friends of Benton County (hereinafter called "FBC") and Evans entered into an agreement on June 7, 1979, a copy of which is attached hereto as Exhibit B (hereinafter referred to as the "FBC Agreement") relating to the Corvallis Complex;

C. FBC has requested (i) that the City Agreement be modified by incorporating the text of Sections 1 through 6 of the FBC Agreement into the City Agreement (the City Agreement as so modified being hereinafter referred to as the "Consolidated Agreement") thereby relieving FBC from further participation in the FBC Agreement, except as to Section 7 thereof which shall remain in effect, and (ii) that the County be added as a party to the Consolidated Agreement, a copy of which request is attached hereto as Exhibit C;

D. The County desires and has agreed to be added as a party to such Consolidated Agreement; and

E. The City and Evans desire and agree to enter into such Consolidated Agreement and to the addition of the County as a party hereto.

Therefore, the parties hereto hereby agree to consolidate the City Agreement and the FBC Agreement as follows, the effective date for the undertakings set forth hereinbelow to be May 9, 1979 unless otherwise noted:

1. Noise Control. In order to reduce and control noise from the Corvallis Complex Evans agrees:

a. To install a silencer on the burner fan located on top of its battery separator plant on or before May 11, 1979.

b. Within five (5) days after such installation, to have noise from its Corvallis Complex measured by an independent technician to be agreed upon by the parties.

c. If noise levels at the Corvallis Complex do not comply with the Oregon Department of Environmental Quality ("DEQ") standards set forth in OAR Ch. 340, Division 35, Noise Control Regulations, amended February, 1979, (hereinafter called "DEQ regulations"), after the installation of the said silencer, to continue its best efforts to identify sources of noise within the Corvallis Complex and to take all necessary action to reduce noise levels from those sources.

d. In any event to reduce noise levels to the extent necessary to comply with DEQ regulations as applicable to the Corvallis Complex on or before December 31, 1979.

e. Within 30 days after the commencement of operation at its Crystal Lake Drive fiberglass plant to have the noise from the Corvallis Complex including the fiberglass plant measured by an independent technician to be agreed upon by the parties.

f. If such noise levels exceed the DEQ regulations, to take all necessary action to reduce the noise to a level that complies with DEQ regulations and, in any event, to comply with DEQ regulations within six months after commencement of normal fiberglass plant operations.

2. Control and Reduction of Sawdust. In order to reduce and control fugitive sawdust from chip piles used in Evans hardboard manufacturing operation, Evans agrees:

a. On or before June 15, 1979 to install a frame and canvas covering device over the chip truck unloading dump designed for the reduction and control of sawdust during unloading operations.

b. On or before June 30, 1979 to install necessary water connections and, when necessary, to use spraying devices when moving chips in the uncovered yard area.

c. To reduce the number of uncovered, free-standing chip piles and to reduce the volume of chips contained in such piles to the minimum quantity consistent with continuous and efficient operation of the hardboard plant in the Corvallis Complex, specifically limited to one free-standing chip pile except under emergency circumstances, including, but not limited to, anticipated interruption of chip supply, force majeure, acts of God or other reasons beyond Evans' control.

3. Discharge of Cooling Water from Submicro Plant. In order to eliminate discharge of cooling water from Evans Submicro Battery Separator plant ("Submicro plant") in the Corvallis Complex, Evans agrees:

a. On or before August 15, 1979, to install a cooling tower at the Submicro plant, place such cooling tower in operation and cease discharging any cooling water from the plant.

b. To continue to operate the cooling tower and shutting off the discharge of cooling water from the Submicro plant except in cases of emergency including, but not limited to breakdown of equipment, force majeure, acts of God or other causes beyond Evans' control.

4. Millrace. In order to assist in resolving problems relating to the millrace in the Corvallis Complex, the City and Evans agree to collaborate in an engineering study of problems associated with the millrace and of possible resolution of such problems.

5. Submicro Plant Emissions. In order to control solvent emissions from its Submicro plant Evans agrees:

a. Evans has filed an application for a DEQ permit for its Submicro plant and Evans will expeditiously pursue such permit application and will abide by all the terms and conditions of any permit issued by DEQ with respect to such application.

b. Evans will abide by all applicable federal and Oregon statutes and regulations affecting air emissions from the Submicro plant including those rules, regulations and limits imposed by DEQ.

6. Fiberglass Plant Emissions. In order to insure minimum particulate emissions from its new fiberglass plant in the Corvallis Complex ("Fiberglass Plant") Evans agrees:

a. Evans has ordered and will install three high efficiency Venturi scrubbers with cyclone separators manufactured by American Air Filter Co., Inc. of Louisville, KY. That equipment is as follows:

One set "Type V Kinpactor" with reinforced flooded elbow size 18 and reinforced Separator size 150 with cone damper to operate at a water column pressure drop of from 8 to 25 inches.

One set "Type V Kinpactor" with reinforced flooded elbow size 16 and reinforced Separator size 115 with cone damper to operate at a water column pressure drop of from 8 to 25 inches.

One set "Type V Kinpactor" with flooded elbow size 22 and Separator size 230 with cone damper to operate at a water column pressure drop of from 8 to 12 inches.

Operation of the three Kinpactors ordered for Evans' Fiberglass Plant shall be at a minimum water column pressure drop of 12 inches. (Effective date: 6/7/79)

b. The characteristics and performance of the above referred to equipment are described at pages 6, 7 and 9 of the attached catalog. (Exhibit D)

c. To maintain such equipment in efficient operating condition.

d. To operate such equipment in a manner consistent with the manufacturer's recommendations for maximum fiber removal.

e. (i) To install, operate and maintain baghouse filter devices in the air conveying system for unloading and conveying sand;

(ii) The design for the Fiberglass Plant incorporates negative pressure bag emptying machines and, in the event bulk storage facilities are constructed, all air from storage silos and from material handling equipment will be exhausted through a baghouse or other control device. (Effective date: 6/7/79)

f. To construct its scrubber stack to a height of 45 feet unless the City of Corvallis agrees for aesthetic reasons or otherwise that the stack may be lower.

g. Evans agrees to the installation and continuous operation of a chart recorder or device designed to continuously monitor the pressure drop level for each of the above-described scrubbers and to maintain a record of the results.

h. Upon completion of the Fiberglass Plant, Evans shall engage an independent testing firm, acceptable to the Supervisor, Program Operations, Air Quality Division, of the DEQ to conduct a source test for particulate emissions from the fiberizer scrubber at the Fiberglass Plant during normal operation, using a Pilat Impactor (or equivalent). To the extent practicable, the test shall be conducted in accordance with the testing procedures on file with the DEQ or in conformance with applicable standard methods approved by the DEQ. The results of such test shall be filed with the DEQ when available. (Effective date: 6/7/79)

i. Present plans for the Fiberglass Plant do not call for the use of sodium nitrate nor any formaldehyde urea type binder. Any change will be in accordance with existing law and regulations. (Effective date: 6/7/79)

j. Installation of a second or additional furnaces or forming lines shall be subject to the permit requirements of DEQ, including, but not limited to, air cleaning equipment, stacks and monitoring equipment. (Effective date: 6/7/79)

7. Truck Traffic. In order to minimize truck traffic on Crystal Lake Drive, Evans agrees:

a. To import raw material for its Fiberglass Plant by rail to the greatest extent possible and economically feasible.

b. To schedule truck deliveries of raw materials to the Fiberglass Plant and finished product shipments from the battery separator plant between the hours of 8:00 a.m. and 5:00 p.m. and that to the greatest extent practicable, it will not schedule such shipments or deliveries during any other hours except in cases of emergency or other events beyond the control of Evans.

8. Ongoing Review of Community Problems. In order to provide an ongoing review of problems arising out of the operation of the Corvallis Complex, Evans agrees:

a. To form a committee including representatives of Evans and its neighbors which will meet as necessary, with formal minutes to be kept of the proceedings of the committee.

b. To review all suggestions and complaints brought before the committee, to study and evaluate the same and to propose resolutions therefore.

c. To review compliance and operation of programs agreed upon by the committee.

d. The suggestions to be considered by the committee shall include but not be limited to control of noise, dust, air emissions, drainage, street and sidewalk improvements, landscaping and beautification.

e. On or before June 30, 1979 Evans will present a plan for the landscaping and beautification of the Corvallis Complex and Crystal Lake Drive for the committee's consideration.

f. The committee formed pursuant to this Section 8 shall be constituted, as follows:

(i) The City shall designate four members of the committee, representative of the community and in each case residing in an area bounded on the east and north by Crystal Lake Drive, on the south by Park Avenue, on the west by US Highway No. 99 W, and on the west and north by the millrace;

(ii) Evans shall designate four members of the committee;

(iii) The members of the committee designated by the City shall select a co-chairman of the committee, and the members designated by Evans shall select a co-chairman of the committee;

(iv) The committee, so constituted, shall adopt rules of procedure for the operation of the committee, including terms of office of members; and

(v) The committee shall expire on December 31, 1980, and every two years thereafter, unless the committee shall vote to continue its existence at a duly called meeting thereof not less than sixty days prior to any such expiration date, provided the committee, as constituted upon its expiration, may reconstitute the committee at any time in accordance with procedures established by the committee. (Effective date for Section 8(f): 6/7/79)

9. Lewisburg Plant. For the purpose of eliminating possible fiberglass emissions at Lewisburg, Evans agrees that it will discontinue the manufacturing of fiberglass at its Lewisburg plant when the present Lewisburg furnace becomes inoperable and, in any event, by May 9, 1981.

10. Proceedings in the Matter of Evans Application for a Building Permit for its Fiberglass Plant.

a. In consideration of the undertakings of Evans hereinabove set forth, the City agrees that it will not file and prosecute an appeal from the determination of the Benton County Planning Commission on April 24, 1979, denying the City's appeal from the issuance to Evans of a building permit dated June 26, 1978 or other necessary permits for the construction of its Fiberglass Plant.

11. Enforcement.

a. For the enforcement of the terms and conditions of this agreement the parties are entitled to appropriate remedies at law or in equity. The parties recognize that specific performance and injunction are appropriate remedies for specific undertakings of Evans contained herein.

b. In the event of any claim of a violation by Evans of any of its undertakings hereunder, the City or County shall give Evans notice reasonable under the circumstances of the claimed violation and Evans shall have time, reasonable under the circumstances to discuss the matter with the party giving such notice and submit its position with respect to the claimed violation.

c. This agreement is intended to be and shall be enforceable only by the parties hereto, specifically intending that only parties bound by this agreement are entitled to the enforcement thereof.

(Effective date of Section 11: 5/9/79 with regard to City; 6/7/79 with regard to County.)

IN WITNESS WHEREOF, the parties have executed this agreement this day and year first herewithin written.

CITY OF CORVALLIS

By _____
Gary F. Pokorny
City Manager

BENTON COUNTY

By _____
Larry Callahan

Approved as to form:

_____
County Counsel

EVANS PRODUCTS COMPANY

By _____
Piotr Zenczak
Executive Vice President
& President, Fiber Products Group

Exhibit A

AGREEMENT

This agreement is made on May 9, 1979, between the City of Corvallis, a municipal corporation (hereinafter called "the City") and Evans Products Company (hereinafter called "Evans").

It is agreed by the parties as follows:

1. Noise Control. In order to reduce and control noise from its Crystal Lake Drive manufacturing operations ("the Corvallis Complex") Evans agrees:

a. To install a silencer on the burner fan located on top of its battery separator plant on or before May 11, 1979.

b. Within five (5) days after such installation, to have noise from its Corvallis Complex measured by an independent technician to be agreed upon by the parties.

c. If noise levels at the Corvallis Complex do not comply with the Department of Environmental Quality (DEQ) standards set forth in OAR Ch. 340, Division 35, Noise Control Regulations, amended February, 1979, (hereinafter called "DEQ regulations"), after the installation of the said silencer, to continue its best efforts to identify sources of noise within its plants and to take all necessary action to reduce noise levels from those sources.

d. In any event to reduce noise levels to the extent necessary to comply with DEQ regulations as applicable to the Corvallis Complex on or before December 31, 1979.

e. Within 30 days after the commencement of operation at its Crystal Lake Drive fiberglass plant to have the noise from the Corvallis Complex including the fiberglass plant measured by an independent technician to be agreed upon by the parties.

f. If such noise levels exceed the DEQ regulations, to take all necessary action to reduce the noise to a level that complies with DEQ regulations and, in any event, to comply with DEQ regulations within six months after commencement of normal fiberglass plant operations.

2. Control and Reduction of Sawdust. In order to reduce and control fugitive sawdust from chip piles used in Evans hardboard manufacturing operation, Evans agrees:

a. On or before June 15, 1979 to install a frame and canvas covering device over the chip truck unloading dump designed for the reduction and control of sawdust during unloading operations.

b. On or before June 30, 1979 to install necessary water connections and, when necessary, to use spraying devices when moving chips in the uncovered yard area.

c. To reduce the number of uncovered, free-standing chip piles and to reduce the volume of chips contained in such piles to the minimum quantity consistent with continuous and efficient operation of the hardboard plant in the Corvallis Complex, specifically limited to one free-standing chip pile except under emergency circumstances, including, but not limited to, anticipated interruption of chip supply, force majeure, acts of God or other reasons beyond Evans' control.

3. Discharge of Cooling Water from Submicro Plant. In order to eliminate discharge of cooling water from the Submicro plant in the Corvallis Complex, Evans agrees:

a. On or before August 15, 1979, to install a cooling tower at the Submicro plant, place such cooling tower in operation and cease discharging any cooling water from the plant.

b. To continue to operate the cooling tower and shutting off the discharge of cooling water from the Submicro plant except in cases of emergency including, but not limited to breakdown of equipment, force majeure, acts of God or other causes beyond Evans' control.

4. Millrace. In order to assist in resolving problems relating to the millrace in the Corvallis Complex, the City and Evans agree to collaborate in an engineering study of problems associated with the millrace and of possible resolution of such problems.

5. Submicro Battery Separator Plant Emissions. In order to control solvent emissions from its Submicro battery separator plant ("Submicro plant"), Evans agrees:

a. Evans has filed an application for a DEQ permit for its Submicro plant and Evans will expeditiously pursue such permit application and will abide by all the terms and conditions of any permit issued by DEQ with respect to such application.

b. Evans will abide by all applicable federal and Oregon statutes and regulations affecting air emissions from the Submicro plant including those rules, regulations and limits imposed by DEQ.

6. Fiberglass Plant Emissions. In order to insure minimum particulate emissions from its new fiberglass plant in the Corvallis Complex ("fiberglass plant") Evans agrees:

a. Evans has ordered and will install three high efficiency Venturi scrubbers with cyclone separators manufactured by American Air Filter Co., Inc. of Louisville, KY. That equipment is as follows:

One set "Type V Kinpactor" with reinforced flooded elbow size 18 and reinforced Separator size 150 with cone damper

to operate at a water column pressure drop of from 8 to 25 inches.

One set "Type V Kinpactor" with reinforced flooded elbow size 16 and reinforced Separator size 115 with cone damper to operate at a water column pressure drop of from 8 to 25 inches.

One set "Type V Kinpactor" with flooded elbow size 22 and Separator size 230 with cone damper to operate at a water column pressure drop of from 8 to 12 inches.

b. The characteristics and performance of the above referred to equipment are described at pages 6, 7 and 9 of the attached catalog.

c. To maintain such equipment in efficient operating condition.

d. To operate such equipment in a manner consistent with the manufacturer's recommendations for maximum fiber removal.

e. To install, operate and maintain baghouse filter devices in the air conveying system for unloading and conveying sand.

f. To construct its scrubber stack to a height of 45 feet unless the City of Corvallis agrees for aesthetic reasons or otherwise that the stack may be lower.

g. Evans agrees to the installation and continuous operation of a chart recorder or device designed to continuously monitor the pressure drop level for each of the above-described scrubbers and to maintain a record of the results.

7. Truck Traffic. In order to minimize truck traffic on Crystal Lake Drive, Evans agrees:

a. To import raw material for its fiberglass plant by rail to the greatest extent possible and economically feasible.

b. To schedule truck deliveries of raw materials to the fiberglass plant and finished product shipments from the battery separator plant between the hours of 8:00 a.m. and 5:00 p.m. and that to the greatest extent practicable, it will not schedule such shipments or deliveries during any other hours except in cases of emergency or other events beyond the control of Evans Products Company.

8. Ongoing Review of Community Problems. In order to provide an ongoing review of problems arising out of the operation of the Corvallis Complex, Evans agrees:

a. To form a committee including representatives of Evans and its neighbors which will meet as necessary, the chairmanship of such committee to be rotated between representatives of Evans and its neighbors, with formal minutes to be kept of the proceedings of the committee.

b. To review all suggestions and complaints brought before the committee, to study and evaluate the same and to propose resolutions therefore.

c. To review compliance and operation of programs agreed upon by the committee.

d. The suggestions to be considered by the committee shall include but not be limited to control of noise, dust, air emissions, drainage, street and sidewalk improvements, landscaping and beautification.

e. On or before June 30, 1979 Evans will present a plan for the landscaping and beautification of the Corvallis Complex and Crystal Lake Drive for the committee's consideration.

9. Lewisburg Plant. For the purpose of eliminating possible fiberglass emissions at Lewisburg, Evans agrees that it will discontinue the manufacturing of fiberglass at its Lewisburg plant when the present Lewisburg furnace becomes inoperable and, in any event, within two years from the date of this agreement.

10. Proceedings in the Matter of Evans Application for a Building Permit for its Fiberglass Plant.

a. In consideration of the undertakings of Evans hereinabove set forth, the City agrees that it will not file and prosecute an appeal from the determination of the Benton County Planning Commission on April 24, 1979, denying the City's appeal from the issuance to Evans of a building permit dated June 26, 1978 for the construction of its fiberglass plant. or other necessary permits SAZ QZ

b. This agreement shall be effective and binding upon the parties only if Benton County has issued a mechanical permit and all other necessary permits to Evans for its fiberglass plant on or before May 15, 1979.

11. Enforcement.

a. For the enforcement of the terms and conditions of this agreement the parties are entitled to appropriate remedies at law or in equity. The parties recognize that specific performance and injunction are appropriate remedies for specific undertakings of Evans contained herein.

b. In the event of any claim of a violation by Evans of any of its undertakings hereunder, the City shall give

Evans notice reasonable under the circumstances of the claimed violation and Evans shall have time, reasonable under the circumstances to discuss the matter with the City and submit its position with respect to the claimed violation.

c. This agreement is intended to be and shall be enforceable only by the parties hereto, specifically intending that only parties bound by this agreement are entitled to the enforcement thereof.

IN WITNESS WHEREOF, the parties have executed this agreement the day and year first herewithin written.

CITY OF CORVALLIS

By _____
Gary F. Pokorny
City Manager

EVANS PRODUCTS COMPANY

By _____
Piotr Zenczak
Vice President

Exhibit B

AGREEMENT

This Agreement is entered into as of June 7, 1979, between the Friends of Benton County ("FBC"), an Oregon non-profit corporation, and Evans Products Company ("Evans"), a Delaware corporation.

It is agreed by the parties hereto as follows:

1. Operation of the three Kinpactors ordered for Evans new fiberglass plant ("Fiberglass Plant") on Crystal Lake Drive in Benton County, Oregon shall be at a minimum water column pressure drop of 12 inches.

2. Upon completion of the Fiberglass Plant, Evans shall engage an independent testing firm, acceptable to the Supervisor, Program Operations, Air Quality Division, of the Oregon Department of Environmental Quality ("DEQ") to conduct a source test for particulate emissions from the fiberizer scrubber at the Fiberglass Plant during normal operation, using a Pilat Impactor (or equivalent). To the extent practicable, the test shall be conducted in accordance with the testing procedures on file with the DEQ or in conformance with applicable standard methods approved by the DEQ. The results of such test shall be filed with the DEQ when available.

3. The committee formed pursuant to Section 8 to the Agreement ("City Agreement") dated May 9, 1979, between the City of Corvallis and Evans shall be constituted, as follows:

(a) the City of Corvallis will be requested by Evans to designate four members of the committee, representative of the community and in each case residing in an area bounded on the east and north by Crystal Lake Drive, on the south by Park Avenue, on the west by US Highway No. 99 W, and on the west and north by the millrace.

(b) Evans shall designate four members of the committee,

(c) the members of the committee designated by the City of Corvallis shall select a co-chairman of the committee, and the members designated by Evans shall select a co-chairman of the committee,

(d) the committee, so constituted, shall adopt rules of procedure for the operation of the committee, including terms of office of members, and

(e) the committee shall expire on December 31, 1980, and every two years thereafter, unless the committee shall vote to continue its existence at a duly called meeting thereof not less than sixty days prior to any such expiration date, provided the committee, as constituted upon its expiration, may reconstitute the committee at any time in accordance with procedures established by the committee.

4. Present plans for the Fiberglass Plant do not call for the use of sodium nitrate nor any formaldehyde urea type binder. Any change will be in accordance with existing law and regulations.

5. The design for the Fiberglass Plant incorporates negative pressure bag emptying machines and, in the event bulk storage facilities are constructed, all air from storage silos and from material handling equipment will be exhausted through a baghouse or other control device.

6. Installation of a second or additional furnaces or forming lines shall be subject to the permit requirements of DEQ, including, but not limited to, air cleaning equipment, stacks and monitoring equipment.

7. In consideration of the undertakings of Evans hereinabove set forth, FBC agrees that it will withdraw before 3:00 p.m. on June 7, 1979 and not prosecute its appeal from the determination of the Benton County Planning Commission on April 24, 1979, denying the appeal from the issuance to Evans of a building permit dated June 26, 1978 for the construction of the Fiberglass Plant and will not contest the issuance of other necessary permits for the construction and operation of such plant so long as Evans is in compliance

with the City Agreement and this Agreement.,

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

FRIENDS OF BENTON COUNTY

By /s/ [illegible]

EVANS PRODUCTS COMPANY

By /s/ [illegible]

Post Office Box "E"
Corvallis, Oregon 97330.

Telephone: 503/753-1211

Exhibit C

EVANS PRODUCTS COMPANY

RECEIVED
JUN - . 1979
Evans Products

June 7, 1979

Friends of Benton County
Route 4, Box 389
Corvallis, OR 97330

Gentlemen:

You have requested (a) that the text of Sections 1 thru 6 of the Agreement ("Agreement") dated June 7, 1979 between the Friends of Benton County ("FBC") and Evans Products Company ("Evans") be incorporated into the Agreement ("City Agreement") dated May 9, 1979 between the City of Corvallis and Evans, such language changes to such texts as may be necessary to conform to definitions in the City Agreement; (b) thereupon the Agreement will terminate thereby relieving FBC from further participation therein except as to Section 7 thereof; and (c) that Benton County be added as a party to the City Agreement. Section 11 of the City Agreement is to apply to the City Agreement, as amended as above provided.

We can not underwrite action by either City of Corvallis or Benton County; however, upon withdrawl of the appeal as provided in Section 7 of the Agreement, we agree to request the City of Corvallis and Benton County to agree to (a) and (c) above and to enter into the necessary amendments to the City Agreement, on the condition, however, that FBC will continue to abide by its undertakings in Section 7 to the Agreement.

In the event the City of Corvallis is not agreeable in all material respects to the foregoing amendments to the City Agreement, the parties to the Agreement shall be entitled to remedies at law, or in equity for the enforcement thereof.

If FBC is in agreement with the foregoing, please evidence such agreement by signing the enclosed copy of this letter and returning it to us.

Very truly yours,

EVANS PRODUCTS COMPANY

Piotr Zenczak
Executive Vice President

RJS:PZ:h

Agreed this 7th day of June, 1979

FRIENDS OF BENTON COUNTY

By /s/ FBC