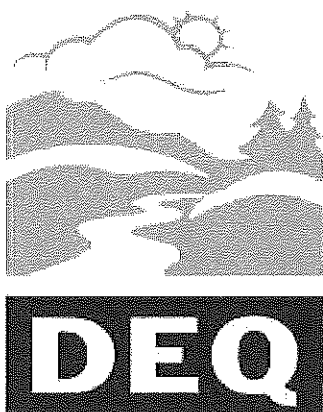


**OREGON  
ENVIRONMENTAL QUALITY  
COMMISSION MEETING  
MATERIALS 03/05/1993**



**State of Oregon  
Department of  
Environmental  
Quality**

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# A G E N D A

## ENVIRONMENTAL QUALITY COMMISSION MEETING

March 5, 1993

DEQ Conference Room 3a

811 S. W. 6th Avenue

Portland, Oregon

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**Friday, March 5, 1993: Regular Meeting beginning at 9:00 a.m.**

*Notes:*

*Because of the uncertain length of time needed for each agenda item, the Commission may deal with any item at any time in the meeting. If a specific time is indicated for an agenda item, an effort will be made to consider that item as close to that time as possible. However, scheduled times may be modified if agreeable with participants. Anyone wishing to be heard or listen to the discussion on any item should arrive at the beginning of the meeting to avoid missing the item of interest.*

***Public Forum:** The Commission will break the meeting at approximately 11:30 a.m. for the Public Forum if there are people signed up to speak. The Public Forum is an opportunity for citizens to speak to the Commission on environmental issues and concerns not a part of the agenda for this meeting. Individual presentations will be limited to 5 minutes. The Commission may discontinue this forum after a reasonable time if an exceptionally large number of speakers wish to appear.*

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- A. Approval of Minutes
- B. Approval of Tax Credits
- C. †Rule Adoption: Proposed Amendments to Pollution Control Tax Credit Rule
- D. †Rule Adoption: Revised Solid Waste Rules to Incorporate Federal Criteria for Municipal Solid Waste Landfills (Subtitle D)
- E. Report on Cross-Media Risk Assessment Project (9:30 a.m.)  
*This item is scheduled for 9:30 a.m. and may be taken out of order.*
- F. Modification of Chemical Waste Management Arlington Facility Permit

- G. Request by the City of Canby for an Increase in Permitted Mass Load Limitations Pursuant to OAR 340-41-026
- H. Information Item: State/EPA Agreement Priorities
- I. Household Hazardous Waste Program Update
- J. Work Session on Recycling (1:00 p.m.)  
*This item is scheduled for 1:00 p.m. and may be taken out of order.*
- K. Commission Members Reports (Oral)
- L. Director's Report (Oral)
- M. Status Report on Legislative Proposals (Oral)

*The Commission will gather for breakfast with staff at 7:30 a.m. in DEQ Conference Room 10a at 811 S. W. 6th Avenue in Portland. Informal discussion topics may include current issues affecting the Department.*

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

*The Commission has set aside April 22-23, 1993, for their next meeting. The location has not been established.*

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

*February 17, 1993*

*Approved with revision  
to page 6*

*Minutes are not final until approved by the EQC*

## ENVIRONMENTAL QUALITY COMMISSION

Minutes of the Two Hundred and Twenty Sixth Meeting  
January 28-29, 1993

### Work Session - January 28, 1993

The Environmental Quality Commission work session was convened at about 1:05 p.m. on Thursday, January 28, 1993, in Conference Room 3A, Oregon Department of Environmental Quality (DEQ), 811 S. W. Sixth Avenue in Portland, Oregon. The following commission members were present:

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

Commissioner Carol Whipple was unable to attend the work session. Fred Hansen was appearing before the Ways and Means Committee in Salem and was unable to attend. Also present were Stephanie Hallock, Administrator of the Hazardous and Solid Waste Division, and other Division Administrators and DEQ staff.

#### 1. **Work Session: Presentation and Discussion of Findings on Wastewater Treatment Costs - A Case Study.**

Commissioner Castle introduced this item by noting that questions regarding comparison of municipal and industrial waste treatment requirements and costs had been raised when the Commission considered the request to grant a waste load allocation to the James River Recycle Plant at Halsey. An opportunity arose for an intern from the Department of Agricultural Resources Economics at Oregon State University to look at the issue. Brett Fried, a graduate student, and Dr. Dave Ervin, head of the Department of Agricultural Resources Economics, presented the results of their study.

The study compared the costs of construction and operation of wastewater treatment facilities for the City of Corvallis and James River Corporation Recycle Facility. Cost prediction models were available for municipal facilities and produced reasonable predication of actual costs for Corvallis. No cost models were available for the industrial waste; comparison of the two facilities thus proved difficult.

The Commission indicated that the information presented helped to understand the potential relationships between treatment standards and costs of meeting those standards. The Commission thanked Mr. Fried and Dr. Ervin for their efforts and presentation.

**2. Work Session: Informal Discussion of Current Issues Affecting the Department.**

Chair Wessinger introduced the informal discussion. Commissioner Lorenzen indicated that he needed to know more about the activities of the Department, including what Department staff believes are the biggest problems facing the Department. The Commission complimented the staff on the information presented in staff reports on agenda items; however, the agenda items deal with selected issues and are not able to provide the more complete background that would be helpful to Commission members.

Brief presentations highlighting significant current issues were made by each of the divisions (Hazardous and Solid Waste, Air Quality, Water Quality, Environmental Cleanup, Regional Operations, and Laboratory). Questions and discussion followed each presentation.

The Commission expressed the desire for continuing this type of informal discussion at future meetings. They requested that Carolyn Young bring them up to date on activities in the Public Affairs section at the next meeting.

The work session was concluded and adjourned at about 4:05 p.m.

**Regular Meeting - January 29, 1993**

The Environmental Quality Commission regular meeting was convened at 8:30 a.m. on Friday, January 29, 1993, in Conference Room 3A, Oregon Department of Environmental Quality (DEQ), 811 S. W. Sixth Avenue in Portland, Oregon. The following commission members were present:

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

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

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

Chair Wessinger called the meeting to order.

**A. Approval of minutes.**

Commissioner Castle moved approval of the December 11, 1992, regular EQC meeting; Commissioner McMahan seconded the motion. The minutes were unanimously approved.

**B. Approval of tax credits.**

Chair Wessinger indicated the solid waste landfill tax credit application, TC-3443, Finley Buttes Landfill Company, would be held out as a separate item for consideration. Commissioner Castle moved approval of the remaining tax credits; Commission Whipple seconded the motion. The 12 tax credit applications listed below were unanimously approved.

Application Number	Applicant	Facility Description
TC-2133	Cascade Forest Products	Clark 57-20 baghouse and associated support equipment.
TC-3417	Fujitsu Microelectronics, Inc.	Packed bed aqueous scrubbers and activated carbon off-gas absorbers.
TC-3878	G & R Auto Wreckers, Inc.	RGF Ultrasorb Model SD-II closed loop oil/water separation and recycle system.

Application Number	Applicant	Facility Description
TC-3882	Polk County Farmers' Cooperative	Concrete wash pad with collection trough, package wastewater treatment system and building to house package system.
TC-3885	Lane International	Plastic granulator for reprocessing reclaimed plastic.
TC-3904	Veldon D. Kropf	198 foot by 124 foot by 22 foot pole construction, metal clad, grass seed straw storage shed.
TC-3914	United Disposal Service, Inc.	Collection depot including loading ramp, collection containers, oil collection facility, asphalt slab, storage and maintenance building, gate/house office, informational signs and security camera system.
TC-3915	William J. Stellmacher	Freeman 370T baler and John Deere 2955 tractor.
TC-3917	C & E Curtis Enterprises Inc.	Auto air conditioning recycling machine.
TC-3920	Aaltonen & James, Inc.	Auto air conditioning recycling machine.
TC-3921	Action Auto & Radiator	Auto air conditioning recycling machine.
TC-3925	R & R Automotive, Inc.	Auto air conditioning recycling machine.

Commissioner Lorenzen indicated he would vote no on TC-3443 as he has done for similar past applications. Commissioner Whipple said in order to maintain consistency, she would approve the tax credit application subject to her previous concerns of the past.

Commission Whipple moved approval of TC-3443, Finley Buttes Landfill Company, for landfill liners and leachate collection system for two landfill cells, leachate evaporation pond and five monitoring wells. Commissioner Castle seconded the motion. Chair Wessinger, Commissioners Whipple, McMahan and Castle voted yes; Commissioner Lorenzen voted no.

Agenda items C-1 and C-2 were introduced and discussed jointly.

**C-1. Pulp Mill Contested Case: Consideration of Agreement Regarding Enforceability of Dioxin and Other Provisions of the Order that are not Subject to Reconsideration.**

In October 1992, the City of St. Helens, Boise Cascade Corporation and James River II, Inc., petitioned the Court of Appeals for judicial review of the dioxin-related provisions of the April 16, 1992, EQC order in the pulp mill contested case. A second order dated August 10, 1992, granted reconsideration of portions of the April 16, 1992, order related to organochlorines other than dioxin, as measured by AOX, including but not limited to determination of the best available technology (BAT) for controlling discharges. The purpose of the agreement proposed in this agenda item was to clarify the original intent and provide assurance that the dioxin provisions of the April 16, 1992, order are in effect now even though judicial review of those provisions may await resolution of the AOX issue.

**C-2. Pulp Mill Contested Case: Petition for Withdrawal of Order Granting Reconsideration.**

In December 1992, John Bonine, Western Environmental Law Clinic, filed with the Commission on behalf of the Northwest Coalition for Alternatives to Pesticides and Columbia River United a petition for withdrawal of the August 10, 1992, reconsideration order. The Department notified Mr. Bonine the petition would not be considered at the December 11 EQC meeting, that it would be referred to legal counsel for advice on statutory requirements governing consideration and that it would be considered at a meeting after December 11. This agenda item presents this petition for Commission consideration.

Director Hansen introduced item C-1 by noting the proposed agreement between the mills and Commission does not change policy direction established in July when the decision was made to reconsider the AOX provisions of the April order; it articulates the intent and understanding that the dioxin related provisions of the April 16 order would be in effect and implemented while the Commission reconsidered the AOX



provisions. Michael Huston, Assistant Attorney General, noted that items C-1 and C-2 are alternative approaches for clarifying that TCDD limits of the Commission's April 16, 1992, Order are enforceable. Mr. Huston provided the Commission with a brief background and discussion of the legal issues that prompt the agreement as a means of clarification. In regard to agenda item C-1, Mr. Huston said the agreement committed the mills and city to comply with all permit conditions except those related to AOX. Additionally, the agreement acknowledges the mills and city have a right to review by the Court of Appeals of the Commission's final order. He noted the mills had signed the proposed agreement.

In response to a question from Commissioner Lorenzen, Mr. Huston replied the mills have signed the agreement, and it was the state's position the mills would be subject to enforcement action if they are found to be in non-compliance. Commissioner Lorenzen asked for clarification on whether it could be considered a partial final order and the issue of a stay. Mr. Huston replied the Administrative Procedures Act contemplates only one order on a case; therefore, the court would be expected to conclude the order is not final until the AOX reconsideration is completed. With regard to a stay, he noted the mills have not requested a stay, and they would have to make such a request to the Commission first.

Commissioner Castle suggested wording changes to paragraph 14 to better clarify the matter related to a stay:

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

Richard Williams, attorney for James River, Michael Campbell attorney for Boise Cascade, and John Bonine, representing Northwest Coalition for Alternatives to Pesticides and Columbia River United, spoke to the Commission about Agenda Items C-1 and C-2.

Mr. Williams said the TCDD limits were clearly enforceable. He indicated that James River did not want the TCDD provision of the order reviewed by the court now but they wanted to preserve that option. Mr. Campbell stated he agreed with Mr. Williams; he said the order was not final but was enforceable.

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Mr. Williams said the TCDD limits were clearly enforceable. He indicated that James River did not want the TCDD provision of the order reviewed by the court now but they wanted to preserve that option. Mr. Campbell stated he agreed with Mr. Williams; he said the order was not final but was enforceable.

Mr. Bonine said the mills and city definitely want to preserve the right to request a stay. He indicated they can obtain the stay from the Court if it is not given by the Commission. Mr. Bonine indicated the mills have the right to stop the process. Commissioner Lorenzen asked if the Commission could vacate the order granting reconsideration. Mr. Huston responded the Commission could do so at any time.

Commissioner Castle moved that Agenda Item C-1, approval of the proposed Stipulation and Agreement, with Commissioner Castle's revision to paragraph 14 as previously noted, be approved; Commissioner Lorenzen seconded the motion. The motion was unanimously approved.

Commissioner Lorenzen moved that the petition for withdrawal of reconsideration (agenda item C-2) be denied; Commissioner Whipple seconded the motion. The motion was unanimously approved.

### **C-3. Petition for Rulemaking filed by Columbia River United**

On January 21, 1993, Columbia River United filed a petition for rulemaking with the Environmental Quality Commission. The petition sought adoption of a rule which would require every pulp mill to: 1) meet a monthly average discharge limit of 1.5 kg AOX/ADMT of pulp produced as soon as feasible but no later than June 1, 1993; and 2) eliminate the discharge of organochlorines as soon as feasible but not later than January 31, 1996, through the use of totally chlorine-free technology. Rules regarding petitions for rulemaking require the Commission to either deny the petition or initiate rulemaking within 30 days of receipt of the petition.

Director Hansen provided background information about agenda item C-3. Mr. Huston indicated the Commission needed to take action on this item today.

John Bonine, representing Columbia River United, urged the Commission to begin the rulemaking process now as a means of exploring the information that is available on chlorine-free pulp production processes.

Commissioner McMahan asked about the Department's position on the petition. Director Hansen indicated he believed it was premature to proceed with the rulemaking process until the Commission completes the AOX reconsideration in the contested case; however, if the petition seemed appealing, the Commission could have information gathered and brought before them, determine the progress of the mills and then consider rulemaking.

Commissioner Castle moved that the petition for rulemaking filed by Columbia River United (agenda item C-3) be denied; Commissioner Whipple seconded the motion. The motion was unanimously approved.

Commissioner Whipple noted that denying the petition at this time did not eliminate any future rulemaking; Commissioner McMahan agreed. Commissioner Castle said timing was the issue, and he would be following the matter very closely.

**D. Proposed Adoption of Temporary Rule Amendments to the Pollution Control Tax Credit Rules.**

This item proposed immediate adoption of temporary rule amendments that will change the return on investment and percent allocable evaluation procedures for tax credit applicant where pollution control facilities are integral to the operation of the applicant's business. The Commission had previously determined the existing rule does not adequately allow the Department and Commission to consider the portion of a facility cost properly allocable to pollution control as specified in the statute. A hearing has been scheduled for considering these proposed amendments as permanent rule amendments.

Director Hansen provided a brief summary of the item. Chair Wessinger asked the status of the rules in regard to the legislature. Director Hansen replied the legislature could amend the statute to nullify the Commission's proposal. Chair Wessinger also asked if the temporary rules affected field burning. Director Hansen said that tax credits would still be available for field burning. Commissioner Lorenzen asked if the temporary rules applied to liner systems required for gold mining operations; Director Hansen replied yes. John Fink of the Department staff responded that a specific determination has not been made at this time. Commissioner Lorenzen stated his view that the entire liner system is integral to the operation of the gold mining business. Director Hansen said that an argument could perhaps be made that the primary liner was integral in that its purpose was to recover gold. The Department has not made a determination as to whether the secondary liner system is integral or a pollution control facility. Commissioner Castle indicated his view that whatever was necessary to comply with the gold mining rules was by definition integral to the business.

Commissioner Lorenzen moved the Commission adopt the proposed temporary rule amendments to the pollution control tax credit rules as presented in Attachment A of the staff report together with the Findings of Need for a temporary rule as presented in the staff report; Commissioner Castle seconded the motion. The motion was unanimously approved.

**E. Status Report on the Total Maximum Daily Load (TMDL) Program.**

This agenda item presented a status report on the 1987 Consent Decree and the status of the Department's efforts to establish TMDL's. The Department recommended that the Commission accept the report.

Neil Mullane, Water Quality Division, presented this agenda item to the Commission. Mr. Mullane, described the status of the total maximum daily load (TMDL) program. The program was initiated when a lawsuit was brought by the Northwest Environmental Defense Center (NEDC) against the U.S. Environmental Protection Agency over Oregon's failure to implement a TMDL program on water quality limited streams(WQLS). This suit was followed by a second notice of intent to sue which identified a series of waterbodies suspected of being WQLS. The parties of the suit signed a settlement decree specifying the actions each party had to perform.

The Department developed a TMDL program designed to meet the requirements of the settlement. The program consists of five elements including: 1) initial data assessment and establishment of preliminary loading capacity; 2) detailed water quality assessments with data evaluation and stream modeling; 3) establishment of TMDLs, waste load allocations (WLAs), and load allocations (LAs); 4) submittal of TMDLs/WLAs/LAs to EPA; and 5) implementation and compliance evaluation.

Mr. Mullane described the number of river basins involved in the TMDL program. These include those WQLS segments identified in the original suit and second notice and those streams identified in subsequent biennial water quality status assessments (305b reports). The state has identified 15 waterbodies as needing TMDLs, within these waterbodies there are 40 WQLS segments needing TMDLs on 51 specific parameters.

The state has submitted 27 final TMDLs and 7 draft TMDLs to the EPA; 17 TMDLs still need to be developed. The Department is currently working on the Grande Ronde River. Work will begin on the Umatilla River during 1993, and work remains on the Coast Fork Willamette, Klamath and South Umpqua rivers.

The Department has made tremendous progress in implementing the TMDL program and meeting the consent decree requirements with a program shift from a technology based permit to a water quality based program. Mr. Mullane also pointed out that not all WQLS are as complex as others. The Department has, therefore, developed a three-tiered TMDL development program to reflect the relative increase in problem complexity. He also stated that when the program started the federal commitment for the first two-year period was approximately \$900,000 with the state committing \$300,000. Over the last two years the state has committed over \$1 million with the federal government committing only \$400,000. Mr. Mullane also stated that approximately 70 percent of these funds are used in basins where the TMDLs/WLAs/LAs have already been established. This highlighted the continual need to work on TMDLs even in areas where they have been established. This also illustrated the growing problem of having sufficient funds to start new TMDL efforts in new basins.

As a final note, Mr. Mullane pointed out that although the program started out specifically directed at WQLS segments, it had been integrated into the Department's overall program with a water quality based program approach being used on several other permitting actions.

Karl Anuta, attorney, representing the Northwest Environmental Defense Center (NEDC was one of the original litigants in the suit brought against EPA) spoke on his belief that the Department was doing a good job but that it needed to do better. He did not feel the Department was making adequate progress in meeting the consent decree requirement of two TMDLs per year. He said that in order to fulfill the intent of the lawsuit settlement agreement that much more needed to be completed. There were also concerns regarding the approach the Department was using to determine the number of TMDLs and WQLS segments. Mr. Anuta indicated the consent decree did not intend for the Department to count each separate parameter TMDL as a single TMDL but that all TMDLs developed on a waterbody was one TMDL. He also said the settlement decree in the Washington law suit was a far more progressive TMDL program that would soon surpass Oregon. Mr. Anuta stated the Department's current program failed to consider the impact that general permits had on the waterbody.

Mr. Mullane indicated significant progress had been made to meet the consent decree. He also pointed out that a TMDL program is an iterative program designed to identify and address all sources contributing to the problem but that source identification is made over time with action taken as sources are identified.

In response to Mr. Anuta's comments on general permits, Mr. Mullane stated that it was inappropriate to assume that all general permits contribute to a specific TMDL problem. He described the Department's process to examine and identify for a specific waterbody all contributing sources and if they include general permits, then specific waste load allocations would be developed.

Chair Wessinger asked how the program compared to others around the country. Mr. Mullane indicated that DEQ had developed and were implementing a leading program and that EPA had developed a national TMDL guidance manual based on the Oregon experience. Mr. Hansen pointed out that several other states were now being asked to develop TMDLs including Washington and Alaska.

Commissioner Lorenzen asked about the timetable for completing the wasteload allocation study. Director Hansen replied this would be an issue to be discussed by Mr. Huston and that perhaps an executive session may be needed.

The Commission accepted the Department's report by consensus.

**F. Report on Tualatin Basin Nonpoint Source Control Program Implementation and Compliance Dates.**

This agenda item reported on the status of efforts to establish non-point source control programs in the Tualatin Basin. The Department recommended the Commission discuss the report and provide guidance to the Department regarding preferred options for proceeding with pollution control efforts in the Tualatin subbasin after the June 30, 1993, TMDL compliance date and discuss any rule changes that may need to be developed.

Andy Schaedel and Mitch Wolgamott of the Water Quality Division provided a brief summary of the staff report and supplied an informational handout.

Karl Anuta told the Commission that critical elements were missing from the staff report. He suggested that compliance dates should not be changed and that compliance should be enforced. Mr. Anuta said the NEDC believed the Tualatin River Basin was improving but that the Department had met resistance by other state agencies involved.

Commissioner Lorenzen asked about the improvements made so far. Mr. Schaedel replied that Confined Animal Feedlot Operations (CAFOs), container nurseries procedures and some forestry activities improvements had produced a positive effect on the Tualatin River Basin. Mr. Anuta responded that he has yet to see Forestry and Agriculture implement anything. Mr. Schaedel noted that progress is being made even though it is not as fast as the Department would like.

Commissioner Whipple asked if people had "bought in" to the program; Mr. Schaedel responded that some had. Commissioner Castle indicated that this program was not just a matter of setting compliance dates. He said that a great deal could be gained by learning and educating the public and agencies.

Director Hansen stated that unless the Commission directed otherwise, the Department would continue on its current course as outlined in the report to try to move the program forward on several fronts. By consensus, the Commission supported this approach.

## **PUBLIC FORUM**

No one appeared at Public Forum. Director Hansen recognized former EQC Chair Jim Peterson who was in the audience. Mr. Peterson is serving as Chair of the Advisory Committee for the Cross-Media project and will be reporting to the Commission at the next meeting.

### **G. Request by Mapleton Commercial Area Owners Association for Waiver or Reduction in Water Quality Annual Compliance Determination Fee.**

The Mapleton Commercial Area Owners Association has asked the Commission for a waiver or reduction in the annual compliance determination fee they must pay. Rules allow the Commission to reduce or suspend the fee if a hardship is found to exist. The Department evaluated the matter and recommended the Commission suspend the annual compliance determination fee for the Mapleton Commercial Area Owners Association of fiscal year 1992-93 and for subsequent fiscal years until such time as the system users have paid off their loans used to finance the local share of the capital costs. It was further recommended the Commission direct staff to prepare a proposed amendment to the annual compliance determination fee schedule (OAR 340-45-075(4)) such that Mapleton would pay the same annual compliance fee as systems now included in Category F. A change in classification would reduce the Mapleton Commercial Area Owners Association annual compliance determination fee from \$1,035 to about \$465.



Commissioner Lorenzen moved approval of the waiver as recommended in the staff report; Commissioner Whipple seconded the motion. The motion was unanimously approved.

**H. Withdrawn.**

**I. Approval of Resolution for Sale of Pollution Control Bonds.**

This item seeks Commission approval of authorization to issue and sell \$85 million in Pollution Control Bonds. The proceeds would be used to: 1) fund the purchase of special assessment bonds from the Cities of Portland and Gresham to implement the Mid-Multnomah County Sewer Project; 2) fund the required 20 percent match for federal funds that are deposited in the State Revolving Fund; and 3) retire Series 1977 bonds that carry a higher interest rate than the current bonds would (and result in an interest savings of approximately \$5 million). The Department recommended the Commission authorize the issuance of bonds by adopting the resolution as presented in Attachment A of the staff report together with the supporting findings presented in the staff report as conclusions.

Commissioner Castle moved approval of the Department recommendation; Commissioner Lorenzen seconded the motion. The motion was unanimously approved.

**J. Rule Adoption: Proposed Housekeeping Amendments to OAR Chapter 340, Divisions 13, 14 and 20 through 34.**

This agenda item presented extensive housekeeping amendments to the air quality rules and recommended the Commission adopt the amendments as presented in Attachment A of the staff report. For rules which are currently part of the State Implementation Plan (SIP) (as identified by a footnote to that effect under each applicable rule), the amendments are adopted as revisions to Oregon's SIP.

Commissioner Lorenzen moved approval of the proposed rule amendments as presented; Commissioner Castle seconded the motion. The motion was unanimously approved.

**K. Report to the Legislature: Status of Underground Storage Tank Financial Assistance Program (Section 62 of Senate Bill 1215).**

Senate Bill 1215 established an enhanced financial assistance program for owners/operators of underground storage tanks holding motor fuel for resale. This legislation requires the Department to report on the implementation of the program at the beginning of each biennial legislative session. This agenda item presents the January 1993 report and recommends the Commission approve the report's distribution to the 67th Legislative Assembly.

Richard Reiter, Hazardous and Solid Waste Division, spoke to the Commission about the Supreme Court decision which invalidated the preferred funding mechanism for the program. He also discussed the Oregon House Energy and Environment Subcommittee work group that is seeking other ways to salvage the program. Director Hansen provided a brief history of the financial assistance program.

Chair Wessinger asked Mr. Reiter how much the Department would have to be given back as a result of the Court decision. Mr. Reiter replied that \$3.8 million would be given back. Commissioner Lorenzen asked about the funds remaining. Director Hansen said that technical assistance and program development were being provided by that funding. Commissioner Whipple said that she was still seeing a lot of tank replacement activity. She asked if the funding was still needed. Mr. Reiter indicated that 677 notices of intent to apply for a loan had been filed.

Director Hansen said the legislature has a strong desire to find replacement revenue for this program. He said that the cardlock (self-service in special settings) may get wrapped up in it, however. Commissioner Lorenzen asked how many were hanging on waiting for the program. Mr. Reiter stated that all but the major oil companies were waiting.

The Commission took no action and, by consensus, supported the Department recommendation to submit the report to the legislature.

**L. Report to the Legislature: Fourth Annual Environmental Cleanup Report.**

The Department is required to submit an annual report to the legislature, Governor, and Commission outlining the environmental cleanup program accomplishments during the previous fiscal year and its goals for the current fiscal year. This item presents the Department's proposed report and seeks Commission approval for submittal to the legislature.

Mary Wahl, Acting Administrator for the Environmental Cleanup Division, was available for questions from the Commission. The program was discussed at the previous day's work session. Commissioner Whipple asked if the decrease in the number of drug lab cleanups indicated drug lab operations were decreasing. Ms. Wahl indicated no; the labs are more difficult to locate because the chemicals now being used produce less odor, that different manufacturing techniques are being used, and that more drug labs are operating in rural areas.

The Commission took no specific action and, by consensus, concurred in submittal of the report to the legislature.

**M. Report to the Legislature: Sewage Treatment Works Operator Certification Program.**

Legislation passed in 1987 requires the Department (jointly with the Health Division) to submit a biennial report to the legislature on the Operation Certification Program. This item presents the Department's portion of that report with the recommendation that the Commission review the draft report, provide guidance for modifications if deemed appropriate and approve submittal of the final report to the Legislature.

Barbara Burton of the Water Quality Division indicated that the Certification Program was going well and was operating in a maintenance mode.

The Commission took no specific action and, by consensus, concurred in submittal of the report to the legislature.

**N. Periodic Rule Review.**

State agencies are required to review their administrative rules every three years for the purpose of determining whether rules should be amended, rescinded, or retained without change. The emphasis of the review is upon minimizing the economic effect of rules upon business. This agenda item summarizes the result of the Department's internal review as well as public comment. DEQ solicited comments from over 7,000 individuals on agency mailing lists and received 24 responses. The Department recommended the Commission accept the rule review reports as presented in the staff report and attachments.

Peter Dalke and Elana Stampfer, Office of the Director, were present to answer questions. Commissioner Lorenzen asked how an issue such as the absolute nature of the temperature standard can be addressed. He indicated there is a need for some kind of escape language. Commissioner Castle called attention to the fact that it is difficult to change a rule after a problem surfaces in the context of a decision. He said flexibility was needed to allow for adjustment based on specific findings.

Mr. Huston indicated it may be possible to achieve some flexibility under state law but that it may be more difficult under federal law. He stated he would prepare a draft paper on options for rule flexibility.

The Commission accepted the report by consensus and took no further action.

**O. Commission Members Reports.**

Commissioner McMahan said she had been asked to serve on the committee that will make recommendations to the Oregon Community Foundation on uses for the funds set aside under the Unified Sewerage Agency consent decree. She indicated the committee would be exploring ways to provide education about river improvements.

**NOTE:** Agenda Item Q was considered before Agenda Item P.

**Q. Status Report on Legislative Proposals.**

Olivia Clark, Assistant to the Director, provided information on the legislative committees that will be considering environmental bills and provided a brief legislative update for the Commission as follows:

- Environmental Crimes (Senate Bill 88) is in the Senate Judiciary Committee.
- Wellhead Protection (House Bill 2149) is in the Water Subcommittee. The Committee will appoint a work group to examine the issues of this bill.
- Pollution Tax Credit (House Bill 2071) is being reviewed by the Revenue Committee. The committee will be examining all tax credit related legislation at one time.

**P. Director's Report.**

- Fuel Processors: Fuel Processors, Inc., a used oil recycling facility in Portland, was assessed the largest civil penalty ever issued by the Department, \$548,244 for 61 hazardous waste violations. With the assistance of Oregon State Police and Multnomah County District Attorney's office, DEQ obtained a criminal search warrant to search Fuel Processors' facility. The Department documented that Fuel Processors was receiving hazardous waste for treatment, storage or disposal (TSD) without first obtaining a permit. Included in the penalty amount was a \$102,244 economic benefit assessment which Fuel Processors gained by failing to apply for and obtain a TSD permit.
- League of Cities Meeting: A joint DEQ/League of Oregon Cities (LOC) early warning team had its first meeting in January. This group was formed to foster a better working relationship with local governments and to prevent escalation of problems before they evolve into major issues. The team will continue to meet on a regular basis.
- Miscellaneous:
  - The Board of Forestry Chair has asked that Director Hansen and State Forester Brown meet to discuss riparian rules. Director Hansen suggested that Chair Wessinger and Commissioner Castle may want to also attend this meeting. No meeting date has been set.
  - Director Hansen asked for comments on the order of the meeting agenda which placed informational report Agenda Items E and F early in the meeting rather than at the end where they tend to receive less emphasis. The Commission commented that it was appropriate to spend time earlier in the meeting on those specific items because they were important. Chair Wessinger said he would like to have fewer

items on the agenda so that more in-depth discussion and suggested the possibility of a consent agenda to include routine items. Commissioner Castle indicated he appreciated the requirement to take action on each item because being forced to vote on the motion made it necessary to learn about the issues.

- Director Hansen asked for observations about the work session held on the previous day. Chair Wessinger and Commissioner Castle replied that they both benefited a great deal from the work session. Commissioner Lorenzen also expressed satisfaction from the session because it helped him to understand what is happening at the agency. The Commission asked to have Carolyn Young, Public Affairs Manager, provide a DEQ informational report at the next such work session and periodically after that.

There was no further business, and the meeting was adjourned at about 2:00 p.m.

# Environmental Quality Commission

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item B  
March 5, 1993 Meeting

**Title:**

Approval of Tax Credit Applications

**Summary:**

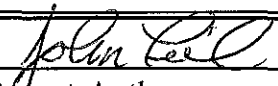
Attachment A of the staff report presents the Department's evaluation and recommendation for certification of 16 tax credit applications with a total facility cost of \$1,169,837 as follows:

- 1 Air Quality facility with a total facility cost of \$25,372.
- 4 Air conditioner coolant recycling machines with a total facility cost of \$14,318.
- 2 Field Burning related applications recommended by the Department of Agriculture with a total facility cost of \$55,928.
- 6 Solid Waste Recycling facilities with a total facility cost of \$364,258.
- 3 Water Quality facilities with a total facility cost of \$709,961.

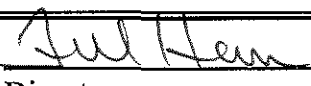
One of the applications has a facility cost exceeding \$250,000 (Water Quality) and has been reviewed by an independent contractor selected by the Department. The contractor's review statement is provided with the application review report.

**Department Recommendation:**

Approve issuance of tax credit certificates for 16 applications as presented in Attachment A of the staff report.

  
Report Author

  
Division Administrator

  
Director

February 3, 1993

**REQUEST FOR EQC ACTION**

Meeting Date: March 5, 1993  
Agenda Item: B  
Division: MSD  
Section: Administration

**SUBJECT:**

Approval of Tax Credit Applications.

**ACTION REQUESTED:**

- Work Session Discussion
  - General Program Background
  - Potential Strategy, Policy, or Rules
  - Agenda Item  for Current Meeting
  - Other: (specify)
  
- Authorize Rulemaking Hearing
- Adopt Rules
  - Proposed Rules Attachment
  - Rulemaking Statements Attachment
  - Fiscal and Economic Impact Statement Attachment
  - Public Notice Attachment
  
- Issue a Contested Case Order
  
- Approve a Stipulated Order
- Enter an Order
  - Proposed Order Attachment
  
- Approve Department Recommendation
  - Variance Request Attachment
  - Exception to Rule Attachment
  - Informational Report Attachment
  - Other: (specify) A Attachment



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





Meeting Date: March 5, 1993  
Agenda Item: B  
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**Tax Credit Application Review Reports:**

TC-3732 Norpac Foods, Inc.	Model LSCA 1030 Evapco centrifugal fan evaporative condensers and associated support equipment.
TC-3819 United Disposal Services, Inc.	Steel building with concrete floor for receiving and sorting old corrugated cardboard.
TC-3843 Troutt Bros. Sanitary & Recycling Services, Inc.	1985 Ford F350 truck equipped with a Peerless retriever compactor unit.
TC-3874 Elf Atochem North America	Spill control system consisting of a coated concrete secondary containment structure for four acid storage tanks.
TC-3880 Smith Bros. Farm	Used John Deere 4040 tractor.
TC-3912 Avison Wood Specialties	Pneumatic sawdust collection system, collection hoods, blowpipes, fan, and cyclone collector.
TC-3934 Mill Waste Recycling Co.	Portable log deck waste processor with Timppte trailer, Falcon Hog, and a Strick trailer with a Hydroscreen model DF100.
TC-3935 Far West Fibers, Inc.	Krause conveyor belt sorting system for post-consumer newspaper.
TC-3937 Ryder Truck Rental	Auto air conditioning recycling machine.
TC-3938 Ryder Truck Rental	Auto air conditioning recycling machine.
TC-3943 Spalding & Son, Inc.	Datatest 90AS Opacity System.
TC-3944 Frank Warrens Automotive	Auto air conditioning recycling machine.

Meeting Date: March 5, 1993  
Agenda Item: B  
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TC-3951 Alpine Disposal and Recycling	Twenty four cubic yard steel roll- off container for recyclable magazine storage and transportation.
TC-3952 Ray's Speedo & Elect.	Auto air conditioning recycling machine.
TC-3955 Carl Jr. Farms	Used John Deere 4650 tractor.

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

TC-3877 Elf Atochem North America	Spill control system for sodium chlorate plant.
--------------------------------------	--

**AUTHORITY/NEED FOR ACTION:**

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

**DEVELOPMENTAL BACKGROUND:**

<input type="checkbox"/> Advisory Committee Report/Recommendation	Attachment <u>    </u>
<input type="checkbox"/> Hearing Officer's Report/Recommendations	Attachment <u>    </u>
<input type="checkbox"/> Response to Testimony/Comments	Attachment <u>    </u>
<input type="checkbox"/> Prior EQC Agenda Items: (list)	Attachment <u>    </u>
<input type="checkbox"/> Other Related Reports/Rules/Statutes:	Attachment <u>    </u>
<input type="checkbox"/> Supplemental Background Information	Attachment <u>    </u>

**REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:**

None.

**PROGRAM CONSIDERATIONS:**

None.

Meeting Date: March 5, 1993  
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**ALTERNATIVES CONSIDERED BY THE DEPARTMENT:**

None.

**DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:**

The Department recommends that the Environmental Quality Commission approve certification for the above identified tax credit applications which includes field burning related applications recommended by the Department of Agriculture.

**CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:**

Yes.

Note - Proposed March 5, 1993 Pollution Tax Credit Totals:

<u>Certificates</u>	<u>Certified Costs*</u>	<u># of Certificates</u>
Air Quality	\$ 25,372	1
CFC	14,318	4
Field Burning	55,928	2
Hazardous Waste	0	0
Noise	0	0
Plastics	0	0
Solid Waste - Recycling	364,258	6
Water Quality	709,961	3
Underground Storage Tanks	0	0
Solid Waste - Landfills	0	0
TOTAL	\$ 1,169,837	16

1993 Calendar Year Totals through January 31, 1993

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

Meeting Date: March 5, 1993  
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\* These amounts represent the total facility costs. To calculate the actual dollars that can be applied as credit, the total facility cost is multiplied by the determined percent allocable of which the net credit is 50 percent of that amount.

**INTENDED FOLLOWUP ACTIONS:**

Notify applicants of Environmental Quality Commission actions.

Approved:

Section: John Loh

Division: Rebecca Taylor

Director: Kred Hansen  
by KO

Report Prepared By: John Fink  
Phone: 229-6149  
Date Prepared: February 3, 1993

JF:jf  
TCMAR93.ALT

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Norpac Foods, Inc.  
Stayton Plant #1  
P.O. Box 458  
Stayton, Oregon 97383

The applicant owns and operates a food processing plant in Stayton, Oregon.

An application was made for a tax credit for a water pollution control facility.

2. Description of Facility

The facility is an evaporative cooling tower. The tower has been installed to lower the temperature of non-contact cooling water generated in the processing of fruits and vegetables at the Norpac plant.

The components of the facility include the Model LSCA 1030 Evapco centrifugal fan evaporative condensers and closed circuit coolers with dual fans and pumps, the reinforced concrete beam support structure, and associated piping and electrical installations. The estimated useful life of the evaporative cooling tower is 20 years.

Claimed Facility Cost: \$ 131,645.68  
The claimed facility cost was supported by invoices submitted by the applicant. An accountant's certification was provided.

3. Procedural Requirements

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

The facility met statutory deadlines in that:

The facility was substantially completed and placed into operation on July 15, 1991. The application for certification was submitted to the Department on February 19, 1992, within two years of the completion date.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department to reduce water pollution. The requirement is to comply with OAR 340-41-445 and the requirements of the applicant's National Pollutant Discharge Elimination System (NPDES) waste discharge permit.

The non-contact cooling water from the plant is discharged into Salem Ditch at two outfalls. During peak processing, approximately 4 million gallons per day (MGD) of condenser cooling water at a temperature of about 67 degrees Fahrenheit is discharged into Salem Ditch.

According to the Willamette Basin Standards given in OAR 340-41-445 and the applicant's waste discharge permit, the monthly average temperature of the Salem Ditch located below the mixing zone of the lower cooling water discharge outfall shall not be increased more than 2 degrees Fahrenheit above the temperature of the Salem Ditch upstream of the first cooling water discharge.

When the applicant's NPDES permit was renewed in 1990, DEQ staff noted that there was no flexibility remaining in the plant's facilities for any substantial increase in hot water discharges. The non-contact cooling water consistently raised the temperature of the Salem Ditch by 2 degrees Fahrenheit during peak food processing. DEQ staff approved construction of the evaporative cooling tower to replace the existing shell and tube condensers and reduce heat loading to the Salem Ditch.

The applicant noted that the increase in temperature in the Ditch was 1.4 degrees Fahrenheit last August based upon operation of the new system, compared to a 1.8 degree Fahrenheit increase for the previous year. The 1.4 degree temperature increase was below the 2 degree limitation set by the NPDES waste discharge permit and allowed the facility to continue operating in compliance.

- b. Eligible Cost Findings

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

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

The facility does not recover or convert waste products into a salable or usable commodity. The evaporative condensers were installed to reduce the heat loading discharged to the Salem Ditch by the previous cooling system using the shell and tube condensers. No waste products are recovered or converted for sale or use in this process.

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

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

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

The applicant considered the use of a high temperature heat pump to extract heat from the non-contact cooling water but stated that such pumps were not readily available for purchase or economical to operate. The existing shell and tube condensers were operating properly and could have continued, but the applicant chose to install the evaporative condensers to reduce the heat discharged to the creek.

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

There are no savings from installation of the evaporative condensers. The applicant has stated that the plant does not operate at a higher production level than before installation of the system. The cost of operating the cooling system has been estimated to be \$12,495 for the first year, with a 5 percent increase in operating costs estimated for the remaining years.

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

The applicant submitted receipts totalling \$191,345.46 for installation of the evaporative condenser, the support structure, and associated piping and electrical installations. However, the applicant indicated in the application that the existing cooling system would have to be moved due to plant remodeling. The applicant subtracted the cost of the equipment transfer from the cost of the new cooling system since the expenditure was necessary in the remodeling process. Further, the applicant indicated that there was a 40 percent increase in capacity of the cooling system with the installation, and reduced the claimed cost by this factor. Additional information was requested from the applicant to clarify the allocable portion of the cost. It was agreed that the allocable portion of the total actual cost of \$191,345.46 was \$131,645.68 or 68.8% of the total, and the claimed facility cost was adjusted accordingly.

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

5. Summation

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



6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$131,645.68 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-3732.

Pamela Fink:crw  
IW\WC10\WC11107.5  
Application No. T-3732  
(503)229-6776  
January 26, 1993

STATE OF OREGON  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

United Disposal Services, Inc.  
Joan Garren  
2215 N. Front Street  
Woodburn, OR 97071

The applicant owns and operates a solid waste collection and recycling service which includes the operation of a recyclable materials drop-off and processing facility. Application was made for tax credit for a solid waste pollution control facility.

2. Description of Facility

The facility is a new building for sorting cardboard which is an addition to the existing recycling dump and pick facility. This building is used exclusively to house the cardboard sorting activities of the Woodburn High School Handicapped Learners Program. The facility is a steel building with large delivery door and a concrete picking floor.

Claimed Facility Cost: \$11,376.00

Invoices for all facility costs were provided.

3. Procedural Requirements

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

The Facility met all statutory deadlines in that:

- a. Construction of the facility was begun on April 20, 1992, and substantially completed by June 3, 1992.
- b. The facility was placed into operation on June 3, 1992.
- c. The application for tax credit was submitted to the Department July 20, 1992, within two years of substantial completion of the facility.
- d. The application was found to be technically complete and was filed on January 14, 1993.

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the facility is to reduce a substantial quantity of solid waste through recycling.
- b. Eligible Cost Findings

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

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

This factor is applicable because 100% of the material processed by the facility is recovered for recycling and is sold as a commodity.

The percent allocable by using this factor would be 100%

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

The "facility," a dump and pick building and sorting floor is used by the local high school handicapped learners program. The program collects used corrugated cardboard and sorts out contaminant at this location. The applicant buys the sorted cardboard from the program. The applicant has no direct expenses and derives no direct income from this dump and pick operation. The facility was built to provide a safe working location for the handicapped participants isolated from the general work area. Based on these considerations, there is no return on investment for this facility and the percent allocable to pollution control is 100%.

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

The applicant considered other equipment and choose this equipment because it was considered to be the best equipment, at the lowest price, with the quickest delivery and installation.

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

There was a general inefficiency and safety problem associated with open floor sorting of cardboard with handicapped workers, however, there was no specific economic benefit in building a separate sorting building.

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon the findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$11,376 with 100% allocable to pollution control be issued for the facility claimed in Tax Credit Application No. T-3819.

WRB:wrb  
wp51\tax\tc3819rr.sta  
(503)229-5934  
January 14, 1993

Application No. T-3843

STATE OF OREGON  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. **Applicant**

Troutt Bros. Sanitary & Recycling Services, Inc.  
dba. Troutt Bros.  
6800 S.W. 11th Drive  
Portland, OR 97219

The applicant owns and operates a solid waste and recyclable materials curbside collection service. This service includes the collection of yard debris as required by the City of Portland. Application was made for tax credit for a solid waste pollution control facility.

2. **Description of Facility**

The facility is a 1985 Ford F350 truck equipped with a Peerless Retriever compactor unit.

Claimed facility cost: \$ 20,000.

An accountant's certification and invoice were provided.

3. **Procedural Requirements**

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

The facility met all statutory deadlines in that:

- a. The facility was purchased on May 15, 1991.
- b. The facility was placed into operation on July 1, 1991.
- c. The application for tax credit was submitted to the Department August 21, 1992, within two years of substantial completion of the facility.
- d. The application was found to be technically complete and was filed on January 21, 1993.

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the claimed facility is to reduce a substantial quantity of solid waste through recycling.
- b. Eligible Cost Findings

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

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

This factor is applicable because the material processed by the facility is recyclable material.

The percent allocable by using this factor would be 100%

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

The applicant is collecting source separated yard debris as a requirement of the City of Portland solid waste collection franchise. The average annual cash flow for this activity is negative and this activity is subsidized by garbage collection fees. As a result, using Table 1, OAR 340-16-030, the return on investment is 0% and the percent allocable is 100%.

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

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

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

There are no savings associated with the purchase or use of this facility.

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon the findings, it is recommended that a Pollution Control Facility certificate bearing the cost of \$20,000 with 100% allocable to pollution control be issued for the facility claimed in Tax Credit Application No. T-3843.

WRB:wrb  
wp51\tax\tc3843RR.STA  
(503)229-5934  
January 21, 1993

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Elf Atochem North America  
Inorganic Chemical Manufacturer  
6400 N.W. Front Avenue  
P.O. Box 4102  
Portland, Oregon 97208

The applicant owns and operates an inorganic chemical manufacturing facility in Portland, Oregon.

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

2. Description of Facility

Elf Atochem North America operates an electrochemical plant which produces chlorine, hydrochloric acid, sodium hydroxide, sodium chlorate, and hydrogen.

The applicant is requesting a tax credit for a spill control system for acid storage tanks.

The spill control system consists of a coated concrete secondary containment structure (i.e. a berm) for four (4) acid storage tanks; three of which contain 98% sulfuric acid ( $H_2SO_4$ ) and the other containing hydrochloric acid (HCl). The structure is sized to contain a minimum of 110% of the volume of the largest tank. In the past, only minimal containment was provided with the resultant potential of spills into the Willamette River and, most probably, an excursion of the facility's NPDES permit.

Claimed Facility Cost: \$47,806.81  
(Accountant's Certification was provided).



3. Procedural Requirements

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

The facility met statutory deadline in that construction of the facility was substantially completed in August of 1991, and the application for certification was found to be complete on January 7, 1993, within 2 years of substantial completion of the facility.

4. Evaluation of Application

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

Elf Atochem North America has an NPDES permit which regulates four outfalls. At each outfall effluent limitations on pH serve to protect the Willamette River from extremely basic or acidic discharges. These limitations also serve to ensure water quality standards for pH are met at the edge of each outfall's regulated mixing zone. The sole purpose of this facility is to ensure spills are contained before entering the sewer system and, from there, violating the facilities NPDES permit. The contained liquid could be pumped to a treatment system for neutralization before discharge.

- b. Eligible Cost Findings

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

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

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

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

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

As noted above, the facility does not recover or convert waste products into a salable or usable commodity, and no income is derived from the operation of the spill control system. Therefore, the estimated annual percent return on the investment is zero.

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

The facility indicated that the only alternative considered consisted of earthen dikes. Due to space limitations, this was not a feasible alternative.

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

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

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$47,806.81 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3874.

Doug Jones:DTJ  
TC-3874  
(503) 229-6385 (x248)  
January 7, 1993

State of Oregon  
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Smith Bros. Farm  
Floyd Smith Farm  
30736 Peoria Road  
Shedd OR 97377

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

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

2. Description of Claimed Facility

The equipment described in this application is a used John Deere 4040 tractor, located at 30736 Peoria Road, Shedd, Oregon. The equipment is owned by the applicant.

Claimed equipment cost: \$27,927.50  
(Accountant's Certification was provided.)

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

The applicants have 2,621 acres of perennial grass seed and 400 acres of annual grass seed under cultivation. The applicants have steadily decreased the number of acres open field burned and propane flamed culminating in only 50 acres open field burned in the 1992 field burning season.

As an alternative to open burning the applicants have turned to straw removal. On acreage supporting annual crops and between stands on perennial acreage the applicants are flail chopping and plowing down the straw. On perennial fields where plowing is not an option the applicants are baling off the straw and stacking it fieldside for stack burning or allowing custom balers to have the straw in exchange for the baling service.

The applicants state that they "... are finding additional residue management is required to maintain adequate weed control" and "[D]ue to reduced open burning on annual and perennial crops..." they "...have to chop and/or chop and stack residue, requiring increased mechanical equipment." The applicants state that the single, previously owned tractor was insufficient to accommodate the increased residue management demands.

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

There is an increase in operating costs of \$11,000 to annually maintain and operate the equipment. These costs were considered in the return on investment calculation.

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

The total annual hours of operation for implements used with the tractor as an alternative method to field burning are as follows:

Flail chopper -	290 hours	(1,270 acres at 5 acre/hr)
Stack wagon -	<u>171 hours</u>	(513 acres at 3 acre/hr)
	461	Total annual operating hours

Total annual operating hours (461) exceeds the average annual operating hours (450), 100% is allocable to pollution control.

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

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible under ORS 468.150 as an approved alternative method for field sanitation and straw utilization and disposal that reduces a substantial quantity of air pollution as defined in ORS 468A.005.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 100%.

7. Department of Agriculture's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$27,927.50, with 100% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3880.

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

4. Procedural Requirements

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

Purchase of the equipment was substantially completed on August 19, 1992 and the application for final certification was found to be complete on January 5, 1993. The application was submitted within two years of substantial purchase of the equipment.

5. Evaluation of Application

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

b. Eligible Cost Findings

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

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

The equipment promotes the conversion of a waste product (straw) into a usable commodity by providing power to farm implements that help the process of returning the straw to the soil in a form that will decompose in a reasonable length of time.

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

There is no annual percent return on the investment as applicant claims no gross annual income.

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

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

STATE OF OREGON  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Avison Wood Specialties, Inc.  
P. O. Box 419  
Molalla, Oregon 97038

The applicant owns and operates a lumber processing plant which takes cut lumber and manufactures clear blocks, cut stock, and finger-jointed clear lumber. Application was made for tax credit for a solid waste pollution control facility.

2. Description of Facility

The facility is a pneumatic system for collection of sawdust which is subsequently sold to another company as a component for the manufacture of soil amendments. The system consists of collection hoods, blowpipe, fan, and cyclone collector.

Claimed facility cost: \$ 26,148

Actual facility cost:	\$ 37,419
Less avoided disposal facility cost	(\$ 11,271)

Claimed Facility cost:	<u>\$ 26,148</u>
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An accountant's certification was provided.

3. Procedural Requirements

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

The Facility met all statutory deadlines in that:

- a. Construction of the facility was begun on May 1, 1991 and substantially completed by June 30, 1991.
- b. The facility was placed into operation on July 1, 1991.
- c. The application for tax credit was submitted to the Department November 13, 1992, within two years of substantial completion of the facility.
- d. The application was found to be technically complete and was filed on January 6, 1993.

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the claimed facility is to reduce a substantial quantity of solid waste through recycling. The applicant has claimed a reduced value for the actual facility by factoring out the cost of an alternative solid waste collection facility and claiming only the "adjusted" facility cost.
- b. Eligible Cost Findings

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

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

This factor is applicable because the material processed by the facility is recovered and sold as a commodity.

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

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

The average annual cash flow for the facility is \$750.00 with the combination of income from sales and savings from avoided solid waste collection and disposal cost greater than the cost of operation. The useful life of the facility is 10 years. The return on investment factor is 36. As a result, using Table 1, OAR 340-16-030, the return on investment is 0% and the percent allocable is 100%.

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

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

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

Installation of this facility is a substitution for a similar unit which would have been necessary to collect sawdust for disposal as solid waste. The applicant has subtracted the cost of a sawdust collection/disposal system from the actual facility cost to provide an adjusted claimed facility cost. This claimed facility cost was used in all cost allocable calculations.



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

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

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

5. Summation

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

6. Director's Recommendation

Based upon the findings, it is recommended that a Pollution Control Facility certificate bearing the cost of \$26,148 with 100% allocable to pollution control be issued for the facility claimed in Tax Credit Application No. T-3912.

WRB:wrb  
wp51\tax\tc3912RR.STA  
(503)229-5934  
January 5, 1993

STATE OF OREGON  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Mill Waste Recycling Company  
Paul D. Parker  
P.O. Box 220  
Sweet Home, Oregon 97386

The applicant owns and operates a portable wood products waste processing machine which is based in Sweet Home, Oregon but operates throughout Oregon. Application was made for tax credit certification for a solid waste pollution control facility.

2. Description of Facility

The facility is two portable multi-stage wood waste processing machines which incorporate size reduction, metals removal and screening. Unit one of the facility consists of a Timpte 40 foot trailer (# 66B3173), Cummins diesel engine, Falcon hog (#3624xxxx92028), Hydraulic pumps, MDI Model CR85 electronic metal detector (# 92292) and NOLCO metal detector conveyor (#A90B25S24L72), and infeed and outfeed conveyor systems. Unit two of the facility consists of a Hydroscreen Model DF 101, (# HSWW01) mounted on a Strick trailer. This equipment is used to process log yard waste into clean material which is sold as soil conditioner products. Some parts of this facility are rebuilt rather than new equipment.

Claimed Facility Cost: \$174,837.22

An Accountant's Certification, itemized expense report, and invoices were provided.

3. Procedural Requirements

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

The Facility met all statutory deadlines in that:

- a. Construction of the facility was begun on March 13, 1992, and substantially completed by December 3, 1992.
- b. The facility was placed into operation on December 9, 1992.
- c. The application for tax credit was submitted to the Department December 18, 1992 within two years of substantial completion of the facility.
- d. The application was found to be technically complete and was filed on January 14, 1993.

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the facility is to reduce a substantial quantity of solid waste through recycling.
- b. Eligible Cost Findings

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

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

This factor is applicable because 100% of the material processed by the facility is recovered for recycling and is sold.

The percent allocable by using this factor would be 100%.
- 2) The estimated annual percent return on the investment in the facility.  

The average annual cash flow for the facility is \$9,576. This is derived from taking projected income less product freight costs and operating expenses. The estimated useful life of the facility is ten years. Dividing the average annual cash flow into the cost of the facility gives a return on investment factor of 18.1. Using Table 1 of OAR 340-16-030, the return on investment is 0% and the percent allocable for this facility is 100%.
- 3) The alternative methods, equipment, and costs for achieving the same pollution control objective.  

This facility was custom designed for this application to be safer and more user friendly than similar commercial equipment which also cost several thousand dollar more.
- 4) Any related savings or decrease in costs which occur or may occur as a result of the installation of the facility.  

The piece of equipment is used by an independent business from the log deck owner. There are no savings to the operator of this equipment.
- 5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water, or noise pollution or solid or hazardous waste, or to recycle or properly dispose of used oil.  

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

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

5. Summation

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

6. Director's Recommendation

Based upon the findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$174,837.22 with 100% allocable to pollution control be issued for the facility claimed in Tax Credit Application No. T-3934.

WRB:b  
wp51\tax\tc3934rr.sta  
(503)229-5934  
January 21, 1993

STATE OF OREGON  
Department of Environmental Quality  
TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Far West Fibers, Inc.  
John Drew, President  
10750 S.W. Denney Road  
Beaverton, OR 97005

The applicant owns and operates a waste paper buy-back center and processing plant. Application was made for tax credit for a solid waste pollution control facility.

2. Description of Facility

The facility is a Krause newspaper sorting center, Serial No. 92KRACONV00404. The sorting center consists of a 15' loading conveyor, 26' inclined conveyor, two (18' and 21' ) sorting conveyors, 36' takeaway conveyor, eight work stations, two stairways and catwalks, and two motors (5HP and 30HP). The facility is used to sort 1,200 tons per year of post consumer newspaper to recycling market specifications (#8 deink news) by hand picking contaminants.

Claimed Facility Cost: \$129,897.00 consisting of:

Conveyor sorting system	\$121,231.00
Installation	8,666.00.
Total	<u>\$129,897.00.</u>

An Accountant's Certification and invoices were provided.

3. Procedural Requirements

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

The Facility met all statutory deadlines in that:

- a. Construction of the facility was begun on September 29, 1992, and substantially completed by November 9, 1992.
- b. The facility was placed into operation on November 9, 1992.
- c. The application for tax credit was submitted to the Department December 21, 1992, within two years of substantial completion of the facility.
- d. The application was found to be technically complete and was filed on December 23, 1992.

4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the facility is to reduce a substantial quantity of solid waste through recycling.
- b. Eligible Cost Findings

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

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

This factor is applicable because 100% of the material processed by the facility is recovered for recycling and is sold as a commodity.

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

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

The "facility," a conveyor sorting system is an operational upgrade from floor sorting which could not handle increasing volumes of old newspaper and represents a potential employee safety hazard. The applicant indicates that the new conveyor sorting system may result in improved sorting efficiency over floor sorting, however, the applicant does not treat the sorting conveyor system as a separate cost center. Therefore, the applicant is unable to document the costs of conveyor sorting vs. floor sorting and determine whether this represents a savings in excess of the cost of operation and maintaining the claimed facility.

Based on these considerations, there is no return on investment for this facility and the percent allocable to pollution control is 100%.

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

The applicant considered other equipment and choose this equipment because it was considered to be the best equipment, at the lowest price, with the quickest delivery and installation.

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

There was some general inefficiency and safety problems associated with the floor sorting system. Along with these issues, the major reason that the facility was installed was to deal with an increase in the volume of post consumer newsprint and a stricter sorting standard for "#8 old news".

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

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

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

5. **Summation**

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

6. **Director's Recommendation**

Based upon the findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$129,897.00 with 100% allocable to pollution control be issued for the facility claimed in Tax Credit Application No. T-3935.

WRB:wrb  
wp51\tax\tc3935rr.sta  
(503)229-5934  
12/23/92

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Ryder Truck Rental  
5205 S. 151st  
Tukwila WA 98188

The applicant owns and operates a truck rental and leasing establishment in Portland, Oregon. Applicant does its own vehicle maintenance.

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

2. Description of Facility

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

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

Claimed Facility Cost: \$4,411.00  
(Costs have been documented)

3. Procedural Requirements

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

Installation of the facility was substantially completed on June 18, 1992. The facility was placed into operation on July 1, 1992. The application for final certification was submitted to the Department on December 22, 1992, within two years of substantial completion of the facility. The application was found to be complete on January 19, 1993.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce



air pollution. This reduction is accomplished by capturing and/or recycling air contaminants, as defined in ORS 468.275. The requirement is to comply with ORS 468.612-621 and OAR 340-22-410 to 415.

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

b. Eligible Cost Findings

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

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

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

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

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

Specifically, the applicant estimated the cost to applicant of virgin coolant at \$4.53/pound. The applicant estimated an annual coolant recovery rate of 500 pounds.

In estimating the operating costs for use of the recovery and recycling machine, the Department developed a standardized

methodology which considers the following factors:

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

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

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

The applicant has identified no alternatives.

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

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

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

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$4,411.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3937.

BKF:a  
MISC\AH70626  
January 19, 1993

State of Oregon  
Department of Environmental Quality  
TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Ryder Truck Rental  
5205 S. 151st Street  
Tukwila WA 98188

The applicant owns and operates a truck rental and leasing establishment in Tigard, Oregon. Applicant does its own vehicle maintenance.

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

2. Description of Facility

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

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

Claimed Facility Cost: \$4,412.00  
(Costs have been documented)

3. Procedural Requirements

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

Installation of the facility was substantially completed on June 22, 1992. The facility was placed into operation on August 1, 1992. The application for final certification was submitted to the Department on December 22, 1992, within two years of substantial completion of the facility. The application was found to be complete on January 19, 1993.

4. Evaluation of Application

a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce air pollution. This reduction is accomplished by

capturing and/or recycling air contaminants, as defined in ORS 468.275. The requirement is to comply with ORS 468.612-621 and OAR 340-22-410 to 415.

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

b. Eligible Cost Findings

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

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

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

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

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

Specifically, the applicant estimated the cost to applicant of virgin coolant at \$4.53/pound. The applicant estimated an annual coolant recovery rate of 500 pounds.

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

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

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

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

The applicant has identified no alternatives.

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

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

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

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$4,412.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3938.

BKF:a  
MISC\AH70628  
January 19, 1993

State of Oregon  
Department of Environmental Quality  
TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Spalding & Son, Inc.  
PO Box 438  
Grants Pass OR 97526

The applicant owns and operates a sawmill in Grants Pass, Oregon.

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

2. Description of Facility

The claimed facility consists of a Datatest 90AS Opacity System. The facility monitors opacity levels of the boiler exhaust gas stream.

Claimed Facility Cost: \$25,372.00

Accountant's Certification was provided.

The useful life of the facility is ten years.

3. Procedural Requirements

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

The facility met all statutory deadlines in that: installation of the facility was substantially completed on March 1, 1992 and placed into operation on March 1, 1992. The application for final certification was submitted to the Department on December 23, 1992, within two years of substantial completion of the facility. The application was found to be complete on January 25, 1993.

4. Evaluation of Application

a. Rationale For Eligibility

The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department to control air pollution. This is in accordance with OAR Chapter 340, Division 21, sections 015 through 020. The air



Contaminant Discharge Permit for this source, 17-0013 item 3 requires the permittee to control the opacity and particulate emissions of the boiler. Item 11 of this permit requires the permittee to monitor the opacity on the exhaust stack of the boiler. The emission reduction is accomplished by the elimination of air contaminants as defined in ORS 468A.005.

The Datatest 90AS Opacity System utilizes a transmissometer which projects a beam of light through the boiler stack and measures the resultant optical density of that light. The light passing through the boiler stack is attenuated because of absorption and scatter by particulate in the exhaust gas stream. Optical density is internally converted to opacity. The alarm sounds when the monitor measures an opacity of 40% or greater.

The Datatest 90AS Opacity System provides the boiler operator immediate notification when boiler stack opacity emissions to the atmosphere are in excess of Air Contaminant Discharge Permit allowances. The applicant estimated 70% of all opacity exceedances are caused by overfeeding the boiler with wood fuel. Once this problem is recognized it can be quickly alleviated. The alarm provides the boiler operator immediate notification that something is wrong. Overfeeding of the boiler can be quickly confirmed by observation of the stack exhaust and the boiler fire. The boiler operator can then modify the boiler fuel conditions to alleviate the problem.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant screened manufacturers of several opacity monitoring systems and choose this model. The Department reviewed and approved the applicant's choice.

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

There are no savings from the facility. The cost of maintaining and operating the facility is \$200.00 annually.

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

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

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

5. Summation

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

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$25,372.00 with 100% allocated to pollution control be issued for the facility claimed in Tax Credit Application No. TC-3943.

BKF:a  
RPT\AH70665  
January 26, 1993

State of Oregon  
Department of Environmental Quality  
TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Frank Warrens Automotive & Marine Services  
50 NW 20th Ave.  
Portland, OR 97209

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

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

2. Description of Facility

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

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

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

3. Procedural Requirements

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

Installation of the facility was substantially completed on September 6, 1991. The facility was placed into operation on September 6, 1991. The application for final certification was submitted to the Department on December 29, 1992, within two years of substantial completion of the facility. The application was found to be complete on January 19, 1993.

4. Evaluation of Application

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

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

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

b. Eligible Cost Findings

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

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

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

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

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

Specifically, the applicant estimated the cost to applicant of virgin coolant at \$8.66/pound. The applicant estimated an annual coolant recovery rate of 75 pounds.

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

- o Electricity consumption of machine

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

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

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

The applicant has identified no alternatives.

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

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

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

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

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$3,000.00 with 77% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3944.

BKF:a  
MISC\AH70629  
January 19, 1993

STATE OF OREGON  
Department of Environmental Quality  
TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Alpine Disposal and Recycling  
P&M, INC. and Kampfer's Sanitary, Inc.  
1299 N.E. 92nd  
Portland, OR 97220

The applicant owns and operates a recyclable materials curbside collection service and material processing and storage yard. Application was made for tax credit for a solid waste pollution control facility.

2. Description of Facility

The facility is a single 24 cubic yard steel "roll-off" container purchased for exclusive use in storage and transportation of recyclable magazines from on-route collection.

Claimed facility cost: \$ 2,000

An accountant's certification and invoice were provided.

3. Procedural Requirements

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

The facility met all statutory deadlines in that:

- a. The facility was purchased on May 20, 1992.
- b. The facility was placed into operation on May 20, 1992.
- c. The application for tax credit was submitted to the Department January 4, 1993, within two years of substantial completion of the facility.
- d. The application was found to be technically complete and was filed on January 6, 1993.



4. Evaluation of Application

- a. The facility is eligible because the sole purpose of the claimed facility is to reduce a substantial quantity of solid waste through recycling.
- b. Eligible Cost Findings

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

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

This factor is applicable because the material processed by the facility is recovered and sold as a commodity.

The percent allocable by using this factor would be 100%

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

The applicant is collecting magazines as a requirement of the City of Portland solid waste collection franchise. The average annual cash flow for this activity is negative and this activity is subsidized by garbage collection fees. As a result, using Table 1, OAR 340-16-030, the return on investment is 0% and the percent allocable is 100%

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

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

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

There are no savings associated with the purchase or use of this facility.

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon the findings, it is recommended that a Pollution Control Facility certificate bearing the cost of \$2,000 with 100% allocable to pollution control be issued for the facility claimed in Tax Credit Application No. T-3951.

WRB:wrb  
wp51\tax\tc3951RR.STA  
(503)229-5934  
January 5, 1993

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Ray's Speedo & Elect.  
943 Rouge River Hwy.  
Grants Pass OR 97527

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

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

2. Description of Facility

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

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

Claimed Facility Cost: \$2,495.00  
(Costs have been documented)

3. Procedural Requirements

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

Installation of the facility was substantially completed on May 22, 1991. The facility was placed into operation on May 22, 1991. The application for final certification was submitted to the Department on January 4, 1993, within two years of substantial completion of the facility. The application was found to be complete on January 19, 1993.

4. Evaluation of Application

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

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

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

b. Eligible Cost Findings

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

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

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

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

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

Specifically, the applicant estimated the cost to applicant of virgin coolant at \$7.56/pound. The applicant estimated an annual coolant recovery rate of twenty pounds.

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

factors:

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

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

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

The applicant has identified no alternatives.

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

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

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

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$2,495.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3952.

BKF:a  
MISC\AH70630  
January 19, 1993

State of Oregon  
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Carl Jr. Farms  
3882 Brush Creek Drive  
Silverton OR 97381

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

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

2. Description of Claimed Facility

The equipment described in this application is a used John Deere 4650 tractor, located at 6532 Howell Prairie Road, Silverton, Oregon. The equipment is owned by the applicant.

Claimed equipment cost: \$28,000  
(Accountant's Certification was provided.)

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

The applicant has 300 acres of perennial grass seed under cultivation. Prior to 1990, the applicant open field burned as many of his acres as the smoke management program and weather permitted.

The applicant's alternative to open field burning consists of baling off the bulk straw and mowing the remaining stubble. He substituted propane flaming to simulate the benefits lost of open field burning but is even phasing out that practice. The result has been a reduction in stand life from four years to two years increasing the need to plow and disk.

The increased use of implements to bale, mow, plow and disk requires another tractor to power the implements enabling the applicant to accomplish these tasks in a timely manner.

4. Procedural Requirements

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

Purchase of the equipment was substantially completed on December 20, 1991 and the application for final certification was found to be complete on January 13, 1993. The application was submitted within two years of substantial purchase of the equipment.

5. Evaluation of Application

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

b. Eligible Cost Findings

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

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

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

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

There is no annual percent return on the investment as applicant claims no gross annual income.

3. The alternative methods, equipment and costs for achieving the same pollution control objective.  
The method chosen is an accepted method for reduction of air pollution. The method is one of the least costly, most effective methods of reducing air pollution.

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

There is an increase in operating costs of \$6,634 to annually maintain and operate the equipment. These costs were considered in the return on investment calculation.

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

The average annual operating hours for tractors have been established at 450 hours. To obtain a total percent



allocable, the annual operating hours per implement used in reducing acreage open field burned is as follows:

<u>Implement</u>	<u>Acres Worked</u>	<u>Machinery Capacity</u>	<u>Annual Operating Hours</u>
Plow	250	7 acres/hour	36
Disc	300 (150 x 2)	7 acres/hour	43
Mower	400 (200 x 2)	7 acres/hour	57
Drag & Roll	600 (200 x 3)	5 acres/hour	<u>120</u>
Total Annual Operating Hours			256

The total annual operating hours of 256 divided by the average annual operating hours of 450 produces a percent allocable of 57%.

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 57%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible under ORS 468.150 as an approved alternative method for field sanitation and straw utilization and disposal that reduces a substantial quantity of air pollution as defined in ORS 468A.005.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 57%.

7. Department of Agriculture's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$28,000, with 57% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3955.

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

jb:bmTC3955  
February 3, 1993

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Elf Atochem North America  
Inorganic Chemical Manufacturer  
6400 N.W. Front Avenue  
P.O. Box 4102  
Portland, Oregon 97208

The applicant owns and operates an inorganic chemical manufacturing facility in Portland, Oregon.

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

2. Description of Facility

Elf Atochem North America operates an electrochemical plant which produces chlorine, hydrochloric acid, sodium hydroxide, sodium chlorate, and hydrogen.

The applicant is requesting a tax credit for a spill control system for the sodium chlorate plant.

In the manufacture of sodium chlorate, purified brine is eventually processed into sodium chlorate. Sodium dichromate is added as a catalyst in this process to increase electrical efficiency and inhibit corrosion. In the past, occasional spills from the chlorate plant resulted in excursions of the plant's permit limit for chromium at Outfall 001 (one of four outfalls at the plant). In response to these excursions Elf Atochem North America has constructed a spill control system consisting of a new sewer line, a concrete waste collection sump, a conductivity controlled discharge valve, three (3) fiberglass 35,000 gallon wastewater storage tanks, concrete containment for the storage tanks, and a new wastewater composite sampler and flow recorder. The system will serve to divert spills to the storage tanks by monitoring the conductivity in the sewer line from the chlorate plant to Outfall 001. Additionally, a berming system designed to capture 110% of the volume from the largest storage tank will decrease the chances of spills from the storage tanks themselves.

A compliance inspection conducted in March of 1992 indicated the above spill containment system was operational.

Claimed Facility Cost	\$533,389
Less: Nonallowable Costs	<u>(2,880)</u>
Total Eligible Facility Cost	\$530,509

An Accountant's Certification was provided. A cost allocation review of this application by an independent contractor has identified \$2,880 in costs that could not be supported. The eligible facility cost has been reduced for these costs.

3. Procedural Requirements

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

The facility met statutory deadline in that construction of the facility was substantially completed on December 1, 1991, and the application for certification was found to be complete on November 5, 1992, within 2 years of substantial completion of the facility.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department to prevent water pollution.

In March of 1986, Elf Atochem North America entered into an agreement (Order No. WQ-NWR-85-175) with the Department to install necessary controls to comply with newly promulgated federal effluent guidelines for the sodium chlorate industry. Initially, these necessary controls included the elimination of chromium as a corrosion inhibitor in plant cooling towers and the installation of a containment/control system designed to keep all chromium contaminated water within the sodium chlorate plant. After the new control system became operational, several excursions of the new limitations were experienced indicating limitations in both the design of the containment/control system and strategies taken toward determining compliance. Specifically, it was noted that there was inadequate containment around the chlorate tanks and, further, no means to collect spills (despite detection by conductivity probes in chlorate sewers) once they were introduced into the sewer system. Additionally, high dilution in Outfall 001 resulted in monitoring problems in that compliance could only be determined at levels below analytical detection limits.

Considering the limitations of the initial containment/control system, Elf Atochem North America undertook an expanded control plan. Part of this control plan involved the installation of a new sewer system for improved spill control. The new sewer system is constructed with a continuous recording conductivity meter and check valve designed to close whenever the conductivity exceeds a set point. Wastewater subsequently backed up into the concrete waste collection sump will be pumped to the three new storage tanks which are located in a new concrete containment area. From here, wastewater contained in the storage tanks will be tested for chromium content and handled accordingly. An additional part of the control plan involves the installation of a new wastewater composite sampler and flow recorder which, because they are located before dilution with high volume discharges, can now determine the compliance status of the facility. The construction of equipment associated with the expanded control plan commenced in May of 1991 and was completed in December of 1991. Since completion of construction, the monthly average discharge of chromium from the sodium chlorate plant has been reduced to less than 0.001 pounds per day (permit limit is 0.13 pounds per day) and there have been no excursions of the permit limit.

b. Eligible Cost Findings

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

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

The facility does not recover or convert waste products into a salable or usable commodity. Wastewater collected will be tested for chromium content. If the wastewater is contaminated with chromium, it will be pumped back to the chlorate plant for use as makeup water. The low frequency of occurrence and relatively small volumes involved will more than offset any significant cost savings incurred in replacement of water supply. Conversely, if the chromium content of the collected wastewater is low enough it will be discharged via Outfall 001.

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

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

As noted above, the facility does not recover or convert waste products into a salable or usable commodity, and no income is derived from the operation of the spill control system. Therefore, the estimated annual percent return on the investment is zero.

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

The facility indicated that the only alternative considered consisted of different storage tank designs. Considered were two (2) larger tanks which would be constructed on-site; however, this was rejected due to higher expense.

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

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

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

a) The Environmental Quality Commission has directed that tax credit applications at or above \$250,000 go through an additional accounting review to determine if costs were properly allocated. This review was performed under contract by the accounting firm of Symonds, Evans & Larson. Other than the adjustment for nonallowable facility costs, the cost allocation review of this application has identified no issues to be resolved.

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

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

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to prevent water pollution.
- c. The facility complies with permit conditions.
- d. An independent accounting firm under contract with the Department has concluded that no further procedures be performed on TC-3877 (see attached review report), other than the adjustment for nonallowable costs as noted in this report.
- e. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$530,508.57 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3877.

Doug Jones:DTJ  
(503) 229-6385 (x248)  
November 13, 1992

**SYMONDS, EVANS & LARSON**  
CERTIFIED PUBLIC ACCOUNTANTS

Environmental Quality Commission  
811 S.W. Sixth Avenue  
Portland, Oregon 97204

At your request, we have performed certain agreed-upon procedures with respect to Elf Atochem North America's (the Company's) Pollution Control Tax Credit Application No. T-3877 (the Application) filed with the State of Oregon, Department of Environmental Quality (DEQ) for the Water Pollution Control Facility in Portland, Oregon (the Facility). The Application had a claimed Facility cost of \$533,389. Our procedures, findings and conclusion are as follows:

Procedures:

1. We read the Application, the Oregon Revised Statutes (ORS) on Pollution Control Facilities Tax Credits – Sections 468.150 through 468.190 (the Statutes), and the Oregon Administrative Rules on Pollution Control Tax Credits – Sections 340-16-005 through 340-16-050 (OAR's).
2. We reviewed certain documents which support the Application.
3. We discussed the Application, the Statutes and OAR's with certain DEQ personnel, including John Fink, Doug Jones and Pam Fink.
4. We discussed certain aspects of the Application with Larry Patterson and Jack Snyder of the Company.
5. We orally confirmed certain aspects of the Application with Peter Wong, a consultant to the Company.
6. We toured the Facility with Mr. Patterson.
7. We requested that Mr. Patterson confirm the following:
  - a) There were no related parties or affiliates of the Company which had billings which were included in the Application.

**SYMONDS, EVANS & LARSON**  
CERTIFIED PUBLIC ACCOUNTANTS

- b) There were no internal costs of the Company included in the Application.
- c) The capacity of the Facility is adequate for the Company's present operations and does not include significant capacity for potential future operations.
- d) The costs of the Facility related to landscaping, road improvements, etc. (ORS - Section 468.155(2)(d)) were excluded from the Application.
- e) The Company presently derives no income or cost savings from operating the Facility.
- f) The treated water from the Facility which is reused by the Company is less than 1% of the total water usage for the Company.
- g) In accordance with ORS - Section 468.155 (2) (e) the Facility is not a "replacement or reconstruction of all or a part of any facility for which a pollution control facility certificate has previously been issued."
- h) The utilization of the three 35,000 gallon tanks was the most cost efficient method to design the Facility and the sole purpose of the tanks is for the control of water pollution.
- i) The cost of supplies included in the Application related to the installation of the Facility and did not include ongoing operating supplies.

**Findings:**

1. through 6.

No matters came to our attention that caused us to believe that the Application should be adjusted, except for \$2,880 of engineering costs that were included in the Application that the Company could not support. As a result, the allowable costs for the Application should be reduced to \$530,509.

7. Mr. Patterson confirmed in writing that such assertions were true and correct.



**SYMONDS, EVANS & LARSON**  
CERTIFIED PUBLIC ACCOUNTANTS

**Conclusion:**

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

This report is solely for the use of the State of Oregon Environmental Quality Commission and Department of Environmental Quality in evaluating the Company's Pollution Control Tax Credit Application with respect to its Water Pollution Control Facility in Portland, Oregon and should not be used for any other purpose.

*Symonds, Evans & Larson*

February 1, 1993

# Environmental Quality Commission

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item C  
March 5, 1993 Meeting

**Title:**

Rule Adoption: Amendments to Pollution Control Tax Credits Rule

**Summary:**

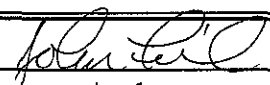
The Commission adopted temporary amendments to the pollution control tax credits rule at the January 29, 1993 Commission meeting. These temporary rule amendments have been filed with the Secretary of State and are currently in effect for a period not to exceed 180 days. The amendments apply to all applications received on or after February 1, 1993.

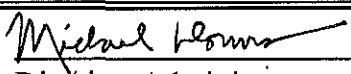
This agenda item proposes the adoption of permanent amendments to the tax credit rule to replace the previously adopted temporary rule amendments. The Department has developed rule amendments that change the procedures used to evaluate the facility return on investment and percent allocable to pollution control where it is determined that pollution control facilities are integral to the operation of the applicant's business. These amendments include the addition of appropriate definitions and the prescribed methods for evaluating the return on investment and percent allocable to pollution control. A change in the reference rate of return is also included.

No oral or written testimony was presented at the public hearing held on the proposed amendments. Two written comments were received during the public comment period. Except for one sentence that the Department has added to the rule in response to comments received, the proposed permanent rule amendments are identical to the temporary rule amendments adopted by the Commission.

**Department Recommendation:**

Adopt the amendments to the pollution control tax credits rule as presented in Attachment A to the staff report.

  
Report Author

  
Division Administrator

  
Director


February 19, 1993

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

State of Oregon  
Department of Environmental Quality

Memorandum<sup>†</sup>

Date: February 19, 1993

To: Environmental Quality Commission  
From: Fred Hansen, Director   
Subject: Agenda Item C, March 5, 1993 EQC Meeting

Rule Adoption: Amendments to Pollution Control Tax Credits Rule

**Background**

On January 29, 1993 the Commission adopted temporary amendments to the Pollution Control Tax Credits Rule, OAR Chapter 340, Division 16. These amendments were developed by the Department in response to the Commission's announced intent to amend the tax credits rule and change the method used to determine the return on investment and percent properly allocable to pollution control for facilities integral to the operation of an applicant's business. At the January 29 meeting, the Department indicated that it would be proposing permanent amendments to the rule as quickly as possible.

The Notice for Proposed Rulemaking Hearing was published in the Secretary of State's Bulletin on February 1, 1993. Notice was mailed to the mailing list of those persons who have asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by or interested in the proposed rulemaking action on January 15, 1993.

A Public Hearing was held February 16, 1993 at DEQ Headquarters in Portland with Brian Fields serving as Presiding Officer. The Presiding Officer's Report (Attachment C) summarizes the oral testimony presented at the hearing.

Written comment was received through February 18, 1993. A list of written comments received is included as Attachment D. (A copy of the comments is available upon request.)

Department staff have evaluated the comments received (Attachment E). Based upon that evaluation, one modification to the initial rulemaking proposal is being recommended by the Department as included in Attachment F.

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The following sections summarize the issue that this proposed rulemaking action is intended to address, the authority to address the issue, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

**Issue this Proposed Rulemaking Action is Intended to Address**

Under the current provisions of ORS 468.190 and OAR 340-16-030, the Commission is required to consider five factors in determining the portion of facility costs properly allocable to pollution control. These five factors are:

- a) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.
- b) The estimated annual percent return on the investment in the facility.
- c) The alternate methods, equipment and costs for achieving the same pollution control objective.
- d) Any related savings or increases in costs which occur as a result of the installation of the facility.
- e) Any other factors relevant to establishing the portion of the actual cost of the facility properly allocable to pollution control.

Factor (b) is the primary mechanism the Department uses to determine the percent properly allocable to pollution control. Using this factor, the facility return on investment and percent allocable determinations are made based on the expected economic benefits (average annual cash flow) derived over the useful life of the facility.

In certain industries, pollution control facilities represent virtually the entire asset base of individual businesses. This makes it very difficult, and in many instances impossible, to separate the economic benefits that may result from construction or installation of pollution control facilities from the operations of the business as a whole. For example, some highly profitable businesses may not be able to generate income without the claimed pollution control facilities. In other industries, pollution control facilities may be installed in response to demand by third parties for these types of facilities and not necessarily as a direct result of environmental requirements. The Commission and Department concluded that, in certain instances, the tax credits rule was flawed in the method used to determine the facility return on investment and percent allocable to pollution control.

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### **Relationship to Federal and Adjacent State Rules**

There is no federal pollution control facilities income tax credit program.

No adjacent states offer income tax credits for pollution control expenditures. Idaho and Nevada allow property tax exemptions on qualified pollution control facilities. Washington and Idaho allow sales and use tax exemptions on qualified pollution control facilities. For state tax purposes, California allows qualified pollution control facilities to be depreciated using federal accelerated depreciation schedules.

### **Authority to Address the Issue**

ORS 468.190(3) specifically authorizes the Commission to adopt rules establishing the methods to be used to determine the portion of facility costs properly allocable to the prevention, control or reduction of pollution.

The temporary rule amendments that were adopted by the Commission and filed with the Secretary of State on January 29, 1993 are effective through July 27, 1993. The proposed permanent rule amendments will replace the previously adopted temporary amendments.

### **Process for Development of the Rulemaking Proposal (including alternatives considered)**

The proposed rule amendments were developed through an internal Department review of the pollution control tax credits rule.

The Department explored several alternate methods that could be used to establish the facility return on investment and percent allocable. The Department believes that the recommended methodology is the most equitable way of addressing the intent of the tax credit statute and the Commission's directive. The selected alternative is relatively simple to employ and allows prospective applicants to make a quick determination of whether a pollution control facility has a return on investment, and whether the applicant will need to submit detailed financial information to support a lower return on investment.

The Department mailed draft versions of the proposed rule amendments to interested persons, published notice of intended rulemaking proposal, solicited written comments on the rule amendments, and held a public hearing. In addition, the proposed rule

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amendments were considered in a public forum by the Commission when they were adopted as temporary rule amendments on January 29, 1993.

**Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.**

The proposed rule amendments presented for public comment were identical to the rule amendments adopted by the Commission on a temporary basis at the January 29, 1993 meeting.

The rule amendments will expand the previous percent allocable determination to identify instances where pollution control facilities are considered integral to the operation of the applicant's business. For such businesses, the existing return on investment and percent allocable determinations will be replaced by a mechanism that compares the applicant's industry rate of return to a reference rate of return. The amended rule contains a provision that allows the applicant to request that a more comprehensive cash flow evaluation methodology be used, however, this will require the applicant to submit detailed financial information in order for the department to evaluate the facility return on investment.

The comprehensive cash flow evaluation methodology that would be employed is an incremental analysis that will compare cash flow for the business including the claimed facility to cash flow assuming that the claimed facility was not constructed. This incremental cash flow will allow the Department and Commission to consider the true economic benefits that an applicant realizes from installation or construction of the facility.

For all applications, the reference rate of return will be changed from percent profit before taxes on stockholders' equity to percent profit before taxes on total assets. This change will only impact the percent allocable determination for facilities that generate a positive return on investment.

**Summary of Significant Public Comment and Changes Proposed in Response**

There was no testimony received at the public hearing held on February 16, 1993. The Presiding Officer's report is included as Attachment C.

Written comment was received from two persons and the Department's complete responses to this written comment is contained in Attachment E. As a result of these comments, the Department is recommending one change to the original rulemaking

proposal. The written comments and the Department's responses to these comments are summarized below:

Comment:

Process modifications would be considered integral only if they met one of the factors listed in the definition.

Clarify how provisions of amended rule relate to facilities essential to operation of a business in compliance with pollution control requirements.

Define how tradeable rights fit into definition of pollution control facilities integral to the operation of the applicant's business.

No industry or group of industries should be identified for different treatment.

The use of industry specific rates of return is not an equitable method for determining percent allocable.

The amended rule should only be effective for facilities constructed or substantially completed after 2/1/93.

Department's Response:

Pollution control modifications to existing manufacturing processes would be considered integral only if they met one or more of the identified factors. These facilities would be subject to the other program eligibility criteria.

The Department is recommending a clarification of this section similar to the suggested language.

Provided that other program eligibility criteria are met, the Department does not believe that tradeable pollution rights would be precluded by the amended rule.

Where certain types of applicants will be impacted, the Department believes that this should be explicitly stated in the rule to simplify interpretation for applicants and Department staff.

The public comment draft of the proposed rule amendments contained two methods of determining the return on investment. The first is based on industry rates of return and is an easy method to employ. Applicants that desire a more comprehensive analysis have the ability to request that this analysis be performed.

The dates of construction or substantial completion are relatively subjective. Use of other effective dates could also result in a substantial lag in the effective date of the rule.

Changing the reference rate of return is not justified.

This change will only impact applications where the claimed facility generates a return on investment. Most applications will not be impacted by this change.

Allow additional time to review comments.

The Department believes that adequate opportunity existed for comment during the designated public comment period. Only a limited number of comments were received.

### **Summary of How the Proposed Rule Will Work and How it Will be Implemented**

The amended rule has been adopted on a temporary basis, filed with the Secretary of State, and is currently in effect. These permanent rule amendments will become effective on filing with the Secretary of State. Applications received on or after February 1, 1993 are subject to the provisions of the amended rule.

### **Recommendation for Commission Action**

It is recommended that the Commission adopt the rule amendments regarding the pollution control tax credits rule as presented in Attachment A of the Department Staff Report.

### **Attachments**

- A. Full Text of Rule and Amendments Proposed for Adoption
- B. Supporting Procedural Documentation:
  - 1. Legal Notice of Hearing
  - 2. Public Notice of Hearing (Chance to Comment)
  - 3. Rulemaking Statements (Statement of Need)
  - 4. Fiscal and Economic Impact Statement
  - 5. Land Use Evaluation Statement
- C. Presiding Officer's Report on Public Hearing
- D. List of Written Comments Received
- E. Department's Evaluation of Public Comment
- F. Detailed Changes to Original Rulemaking Proposal made in Response to Public Comment
- G. Rule Implementation Plan
- H. Discussion of Proposed Rule Amendments from January 29, 1993 EQC Staff Report



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Reference Documents (available upon request)

Written Comments Received (listed in Attachment D)

Approved:

Section:

John Fink

Division:

Michael Poma

Report Prepared By: John Fink

Phone: 229-6149

Date Prepared: February 19, 1993

OREGON ADMINISTRATIVE RULES  
FOR POLLUTION CONTROL TAX CREDITS  
CHAPTER 340, DIVISION 16

[Note: words ~~stricken~~ are deletions; words underlined are additions.]

340-16-005 PURPOSE

The purpose of these rules is to prescribe procedures and criteria to be used by the Department and Commission for issuance of tax credits for pollution control facilities. These rules are to be used in connection with ORS 468.150 to 468.190 and apply only to facilities on which construction has been completed after December 31, 1983, except where otherwise noted herein.

340-16-010 DEFINITIONS

- (1) "Circumstances beyond the control of the applicant" means facts, conditions and circumstances which applicant's due care and diligence would not have avoided.
- (2) "Commission" means Environmental Quality Commission.
- (3) "Department" means Department of Environmental Quality.
- (4) "Facility" means a pollution control facility.
- (5) "Like-for-like replacement cost" means the current price of providing a new facility of the same type, size and construction materials as the original facility.
- (6) "Material recovery process" means any process for obtaining from solid waste, hazardous waste or used oil, by presegregation or otherwise, materials which still have useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled for the same or other purpose. This does not include any process in which the major purpose is the production of fuel from solid waste, hazardous waste or used oil which can be utilized for heat content or other forms of energy. It does not include any type of process which burns waste to produce energy or to reduce the amount of waste. However, it does not eliminate from eligibility a pollution control device associated with a process which burns waste if such device is otherwise eligible for pollution control tax credit under these rules.
- (7) "Principal purpose" means the most important or primary purpose. Each facility may have only one principal purpose.
- (8) "Reconstruction or replacement" means the provision of a new facility with qualities and pollution control characteristics equivalent to the original facility. This does not include repairs or work done to maintain the facility in good working order.
- (9) "Sole purpose" means the exclusive purpose.
- (10)(a) "Spill or unauthorized release" means the discharge, deposit, injection, dumping, spilling, emitting, releasing, leakage or placing of oil, hazardous materials or other polluting substances into the air or into or on any land or waters of the state, as defined in ORS 468.700, except as authorized by a permit issued under ORS Chapter 454, 459, 468 or 469, ORS 466.005 to 466.385, ORS 466.880(1) and (2), 466.890 and 466.995(1) and (2) or federal law while being stored or used

for its intended purpose.

- (b) For purposes of determining eligibility for tax credits under these rules, polluting substances released into the environment in conjunction with operation of a previously approved facility or activity where such facility or activity was operated in compliance with requirements imposed by the Department or the Federal Environmental Protection Agency, and where the polluting substances which must now be cleaned up are determined by the Department to have been an unanticipated result of the approved facility or activity and are not deemed to be a "spill or unauthorized release."
- (11) "Substantial completion" means the completion of erection, installation, modification, or construction of all elements of the facility which are essential to perform its purpose.
- (12) "Useful life" means the number of years the claimed facility is capable of operating before replacement or disposal.

340-16-020 PROCEDURES FOR RECEIVING TAX CREDIT CERTIFICATION

(1) Filing of Application:

- (a) A written application for tax credit certification shall be made to the Department on a form provided by the Department;
- (b) The application shall be submitted within two years of substantial completion of construction of the facility. Failure to submit a timely application shall make the facility ineligible for tax credit certification;
- (c) The Commission may grant an extension of time to submit an application if circumstances beyond the control of the applicant would make a timely filing unreasonable;
- (d) An extension shall only be considered if applied for within two years of substantial completion of construction of the facility. An extension may be granted for no more than one year. Only one extension may be granted;
- (e) Within 30 days of receipt of an application, the Department shall request any additional information that applicant needs to submit in order for the application to be considered complete. The Department may also require any other information necessary to determine whether the construction is in accordance with Department statutes, rules and standards;
- (f) An application shall not be considered filed until all requested information is furnished by the applicant, and the Department notifies the applicant in writing that the application is complete and ready for processing;
- (g) An application may be withdrawn and resubmitted by applicant at any time within two years of substantial completion of construction of the facility without paying an additional processing fee, unless the cost of the facility has increased. An additional processing fee shall be calculated by subtracting the cost of the facility on the original application from the cost of the facility on the resubmitted application and multiplying the remainder by one-half of one percent;

- (h) If the Department determines the application is incomplete for processing and the applicant fails to submit requested information within 180 days of the date when the Department requested the information, the application will be rejected by the Department unless applicant requests in writing additional time to submit requested information;
- (i) If the application is submitted after the two year period following substantial completion and the applicant has not filed an extension request, the application will be rejected by the Department.

(2) Commission Action:

- (a) Notice of the Department's recommended action on the application shall be mailed at least seven days before the Commission meeting where the application will be considered unless the applicant waives the notice requirement in writing. The Commission shall act on an application for certification before the 120th day after the filing of a complete application. The Commission may consider and act upon an application at any of its regular or special meetings. The matter shall be conducted as an informal public informational hearing, not a contested case hearing, unless ordered otherwise by the Commission;

(b) Certification:

- (A) If the Commission determines that the facility is eligible, it shall make appropriate findings and certify the actual cost of the facility and the portion of the actual cost properly allocable to pollution control, material recovery or recycling as set forth in ORS 468.190. Each certificate shall bear a separate serial number for each such facility;
- (B) The actual cost or portion of the actual cost certified shall not exceed the taxpayer's own cash investment in the facility or portion of the facility;
- (C) No determination of the proportion of the actual cost of the facility to be certified shall be made until a complete application is filed;
- (D) If two or more facilities constitute an operational unit, the Commission may certify such facilities under one certificate;
- (E) A certificate is effective for purposes of tax relief in accordance with ORS 307.405, 316.097 and 317.116 if erection, construction or installation of the facility was completed and certified before December 31, 1995;
- (F) Certification of a pollution control facility qualifying under ORS 468.165(1) shall be granted for a period of 10 consecutive years. The 10-year period shall begin with the tax year of the person in which the facility is certified under this section. However, if ad valorem tax relief is utilized by a corporation organized under ORS Chapter 61 or 62 the facility shall be exempt from ad valorem taxation, to the extent of the portion allocable, for a period of 20 consecutive years, or 10 years if construction is commenced after June 30, 1989 and completed before December 31, 1990,

from the date of its first certification by the Commission;

(G) Portions of a facility qualifying under ORS 468.165(1)(c) may be certified separately under this section if ownership of the portions is in more than one person. Certification of such portions of a facility shall include certification of the actual cost of the portion of the facility to the person receiving the certification. The actual cost certified for all portions of a facility separately certified under this subsection shall not exceed the total cost of the facility that would have been certified under one certificate. The provisions of ORS 316.097(8) or 317.116 whichever is applicable, shall apply to any sale, exchange or other disposition of a certified portion of a facility.

(c) Rejection: If the Commission rejects an application for certification, or certifies a lesser actual cost of the facility or a lesser portion of the actual cost properly allocable to pollution control, material recovery or recycling than was claimed in the application for certification, the Commission shall cause written notice of its action, and a concise statement of the findings and reasons therefore, to be sent by registered or certified mail to the applicant.

(3) Appeal: If the application is rejected by the Commission for any reason, or if the applicant is dissatisfied with the certification of actual cost or portion of the actual cost properly allocable to pollution control, resource recovery or recycling, the applicant may appeal from the rejection as provided in ORS 468.110. The rejection of the certification is final and conclusive on all parties unless the applicant takes an appeal therefrom as provided in ORS 468.110 before the 30th day after notice was mailed by the Commission.

#### 340-16-025 QUALIFICATION OF FACILITY FOR TAX CREDITS

(1) "Pollution control facility" or "facility" shall include any land, structure, building, installation, excavation, machinery, equipment or device, or alternative methods for field sanitation and straw utilization and disposal as approved by the Field Burning Advisory Committee and the Department, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person, which will achieve compliance with Department statutes and rules or Commission orders or permit conditions before certification, where applicable, if:

(a) The principal purpose of the facility is to comply with a requirement imposed by the Department, the Federal Environmental Protection Agency or regional air pollution authority to prevent, control or reduce air, water or noise pollution or solid or hazardous waste or to recycle or provide for the appropriate disposal of used oil. To meet the definition of principal purpose, the facility must be established to comply with the environmental requirements specified in this subsection for the control, reduction, or prevention of pollution, or for the material recovery of solid waste, hazardous waste or used oil. Other benefits of economic value that are a result of the facility, are not eligible for tax credit and must be eliminated through the return on investment calculation; or

- (b) The sole purpose of the facility is to prevent, control or reduce a substantial quantity of air, water or noise pollution or solid or hazardous waste or to recycle or provide for the appropriate disposal of used oil. In order to meet the definition of sole purpose, the only function or use of the facility must be the control, reduction, or prevention of pollution, or, for the material recovery of solid waste, hazardous waste or used oil. Sole purpose is not applicable where the facility is established in response to the environmental requirements identified in subsection (a) of this section. Other benefits of economic value which result from the facility are not eligible for tax credit and must be eliminated through the return on investment calculation.
- (2) Such prevention, control or reduction required by this subsection shall be accomplished by:
- (a) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468.700;
  - (b) The disposal or elimination of or redesign to eliminate air contaminants or air pollution or air contamination sources and the use of air cleaning devices as defined in ORS 468.275;
  - (c) The substantial reduction or elimination of or redesign to eliminate noise pollution or noise emission sources as defined by rule of the Commission;
  - (d) The use of a material recovery process which obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005, hazardous waste as defined in ORS 466.005, or used oil as defined in ORS 468.850;
  - (e) The treatment, substantial reduction or elimination of or redesign to treat, substantially reduce or eliminate hazardous waste as defined in ORS 466.005; or
  - (f) Approved alternative field burning methods and facilities which shall be limited to:
    - (A) Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning;
    - (B) Propane flammers or mobile field sanitizers which are alternatives to open field burning and reduce air quality impacts; and
    - (C) Drainage tile installations which will result in a reduction of grass seed acreage under production.
  - (g) Installation or construction of facilities which will be used to detect, deter, or prevent spills or unauthorized releases. This does not include any facility installed, constructed or used for cleanup after a spill or unauthorized release has occurred.
- (3) "Pollution control facility" or "facility" does not include:
- (a) Air conditioners;

- (b) Septic tanks or other facilities for human waste;
  - (c) Property installed, constructed or used for moving sewage to the collecting facilities of a public or quasi-public sewerage system;
  - (d) Any distinct portion of a pollution control facility that makes an insignificant contribution to the principal or sole purpose of the facility including the following specific items:
    - (A) Office buildings and furnishings;
    - (B) Parking lots and road improvements;
    - (C) Landscaping;
    - (D) External lighting;
    - (E) Company or related signs; and
    - (F) Automobiles.
  - (e) Facilities not directly related to the operation of the industry or enterprise seeking the tax credit;
  - (f) Asbestos abatement; or
  - (g) Replacement or reconstruction of all or a part of any facility for which a pollution control facility certificate has previously been issued under ORS 468.170, except:
    - (A) If the cost to replace or reconstruct the facility is greater than the like-for-like replacement cost of the original facility due to a requirement imposed by the Department, the Federal Environmental Protection Agency or a regional air pollution authority, then the facility may be eligible for tax credit certification up to an amount equal to the difference between the cost of the new facility and the like-for-like replacement cost of the original facility; or
    - (B) If a facility is replaced or reconstructed before the end of its useful life then the facility may be eligible for the remainder of the tax credit certified to the original facility.
  - (h) Property or facilities installed, constructed or used for cleanup of emergency spills or unauthorized releases. This includes any facility installed, constructed or used for cleanup after a spill or unauthorized release has occurred.
- (4) Any person may apply to the Commission for certification under ORS 468.170 of a pollution control facility or portion thereof erected, constructed or installed by the person in Oregon if:
- (a) The air or water pollution control facility was erected, constructed or installed on or after January 1, 1967;
  - (b) The noise pollution control facility was erected, constructed or installed on or after January 1, 1977;
  - (c) The solid waste facility was under construction on or after

January 1, 1973, or the hazardous waste, used oil, material recovery, or recycling facility was under construction on or after October 3, 1979, and if:

- (A) The facility's principal or sole purpose conforms to the requirements of ORS 468.155(1);
  - (B) The facility will utilize material that would otherwise be solid waste as defined in ORS 459.005, hazardous waste as defined in ORS 466.005 or used oil as defined in ORS 468.850:
    - (i) By mechanical processing or chemical processing; or
    - (ii) Through the production, processing, presegregation, or use of:
      - (I) Materials which have useful chemical or physical properties and which may be used for the same or other purposes; or
      - (II) Materials which may be used in the same kind of application as its prior use without change in identity.
  - (C) The end product of the utilization is an item of real economic value;
  - (D) The end product of the utilization, is competitive with an end product produced in another state; and
  - (E) The Oregon law regulating solid waste imposes standards at least substantially equivalent to the federal law.
- (d) The hazardous waste control facility was erected, constructed or installed on or after January 1, 1984 and if:
- (A) The facility's principal or sole purpose conforms to the requirements of ORS 468.155(1); and
  - (B) The facility is designed to treat, substantially reduce or eliminate hazardous waste as defined in ORS 466.005.
- (5) The Commission shall certify a pollution control, solid waste, hazardous waste or used oil facility or portion thereof, for which an application has been made under ORS 468.165, if the Commission finds that the facility:
- (a) Was erected, constructed or installed in accordance with the requirements of ORS 468.165(1);
  - (b) Is designed for, and is being operated or will operate in accordance with the requirements of ORS 468.155; and
  - (c) Is necessary to satisfy the intents and purposes of and is in accordance with the applicable Department statutes, rules and standards.



340-16-030 DETERMINATION OF PERCENTAGE OF CERTIFIED FACILITY COST ALLOCABLE TO POLLUTION CONTROL

(1) Definitions:

(a) "Annual incremental cash flow" means the estimated annual cash flow for each year of the useful life of a claimed pollution control facility integral to the applicant's business calculated as follows:

(A) Calculate the applicant's annual cash flow with the claimed facility by subtracting the annual operating expenses for the applicant's business from the gross annual income for the applicant's business for each year of the useful life of the claimed facility; and

(B) Calculate the applicant's annual cash flow assuming that the claimed facility was not erected, constructed, or installed by subtracting the annual operating expenses for the applicant's business using this assumption from the gross annual income for the applicant's business using this assumption for each year of the useful life of the claimed facility; and

(C) Subtract the applicant's annual cash flow assuming that the claimed facility was not erected, constructed, or installed from the annual cash flow with the claimed facility for each year of the useful life of the claimed facility.

~~(a)~~ (b) "Annual operating expenses" means the estimated costs of operating the claimed facility or the applicant's business if pollution control facilities are integral to the operation of the applicant's business, including labor, utilities, property taxes, insurance, and other cash expenses, less any savings in expenses attributable to installation of the claimed facility. Depreciation, interest expenses, and state and federal taxes are not included.

~~(b)~~ (c) "Average annual cash flow" means the estimated average annual cash flow from the claimed facility for the first five full years of operation calculated as follows:

(A) Calculate the annual cash flow for each of the first five full years of operation by subtracting the annual operating expenses from the gross annual income for each year; and

(B) Sum the five annual cash flows and divide the total by five. Where the useful life of the claimed facility is less than five years, sum the annual cash flows for the useful life of the facility and divide by the useful life.

~~(c)~~ (d) "Claimed facility cost" means the actual cost of the claimed facility minus the salvage value of any facilities removed from service. Certification of the actual cost of the claimed facility must be documented by a certified public accountant for facilities with a claimed facility cost over \$20,000;

- (d) (e) "Gross annual income" means the estimated total annual income from the claimed facility or the applicant's business if pollution control facilities are integral to the operation of the applicant's business, derived from sale or reuse of recovered materials or energy or any other means including savings that may occur as a result of the facility;
- (f) "Internal rate of return" means the rate of return that will equate the present value of annual incremental cash flows over the useful life of the claimed facility with the present value of the claimed facility cost.
- (g) "Pollution control facilities integral to the operation of the applicant's business" means that the business is unable to operate or is only able to operate at reduced income levels, without the claimed pollution control facility. Such instances include, but are not limited to, commercial solid waste and hazardous waste landfills, solid and hazardous waste recycling businesses, and environmental service providers. Pollution control facilities integral to the operation of the applicant's business does not include a facility as defined in OAR 340-16-025(1)(a) unless the pollution control facilities meet one or more of the factors included in this definition. Factors that the Department may use to determine whether pollution control facilities are integral to the operation of the business include:
- (A) Pollution control facilities represent in excess of 25 percent of the total assets of the business; or
- (B) The claimed pollution control facilities were erected, constructed, or installed in response to market demand for such pollution control facilities. This may occur as the result of requirements imposed by the Department, the Federal Environmental Protection Agency or regional air pollution authority, on parties unaffiliated with the applicant; or
- (C) Erection, construction, or installation of the claimed facility and any previously certified pollution control facilities, allows the applicant to generate gross revenues at least 50 percent greater than would have been generated in the absence of the claimed facility and any previously certified pollution control facilities; or
- (D) The applicant's operating expenses related to operation of the claimed facilities and any previously certified pollution control facilities are at least 50 percent of the operating expenses of the applicant's business.
- (e) (h) "Salvage value" means the value of a facility at the end of its useful life minus what it costs to remove it from service. Salvage value can never be less than zero.
- (2) In establishing the portion of costs properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or properly disposing of used oil for facilities qualifying for certification under ORS 468.170, the Commission shall consider the following factors and make appropriate findings regarding their applicability:

- (a) The extent to which the facility is used to recover and convert waste products into a salable or usable commodity;
  - (b) The estimated annual percent return on the investment in the facility;
  - (c) The alternative methods, equipment and costs for achieving the same pollution control objective;
  - (d) Related savings or increases in costs which occur or may occur as a result of the installation of the facility; or
  - (e) Other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or properly disposing of used oil.
- (3) The portion of actual costs properly allocable shall be from zero to 100 percent in increments of one percent. If zero percent, the Commission shall issue an order denying certification.
- (4) In considering the factors listed in this rule, the Commission may determine in its findings that one or more factors are more important than others and may assign different weights to the factors when determining the portion of costs properly allocable to pollution control.
- (5) When considering the estimated annual percent return on investment in the facility, subsection (2)(b) of this rule, for applicants where pollution control facilities are integral to the operation of the business, and for applications received on or after February 1, 1993, the following steps will be used:
- (a) Using the applicant's primary four digit Standard Industrial Classification (SIC):
    - (A) Determine the industry median profit before taxes as a percent of total assets for the five years prior to the year of completion of the claimed facility from Robert Morris Associates, Annual Statement Studies; and
    - (B) Determine the industry average profit before taxes as a percent of total assets by summing the median profit before taxes as a percent of total assets for the five years prior to the year of completion of the claimed facility and divide by five. Where five years are not available, sum the number of years that are available and divide by the number of years.
  - (b) Determine the reference annual percent return on investment from Table 2. Select the reference percent return from Table 2 that corresponds with the year construction was completed on the claimed facility. For each future calendar year not shown in Table 2, the reference percent return shall be the five-year average of the rate of return before taxes on total assets for all United States manufacturing corporations for the five years prior to the calendar year of interest;
    - (A) If the industry average profit before taxes as a percent of total assets is greater than the reference rate of return, the percent allocable would be 0 percent;

(B) If the industry average profit before taxes as a percent of total assets is less than the reference rate of return, the percent allocable will be determined from the following formula:

$$P_A = \frac{(RROI - IROI)}{RROI} \times 100$$

where:

P<sub>A</sub> is the percentage of actual costs properly allocable to pollution control in percent, rounded off to the nearest whole number.

IROI is the industry average annual profit before taxes as a percent of total assets.

RROI is the reference annual percent return on investment from Table 2.

(c) If the Annual Statement Studies do not list the industry median profit before taxes as a percent of total assets for the applicant's primary four digit SIC, the applicant and the Department will determine whether an alternate SIC is appropriate for the applicant's business. If no alternate SIC is appropriate, the percent allocable will be determined using the procedures in subsection (d) of this rule.

(d) If an applicant whose pollution control facilities are determined by the Department to be integral to the applicant's business is dissatisfied with the percent allocable determination made using the procedures in subsections (5)(a) and (5)(b) of this rule, or if no SIC is appropriate for the applicant's business, the applicant will furnish the following information to the Department:

(A) An income statement, balance sheet, statement of cash flows, and federal and state tax returns (if applicable) for the applicant's business for the applicant's three fiscal years prior to the date of submission of the application. If three years of such statements are not available, the applicant will submit information for the years that are available.

(B) Revenue and expense projections, and cash flow projections for the applicant's business beginning with the year the application is submitted and continuing for the entire useful life of the pollution control facility. The level of detail of these projections shall be substantially equivalent to the level of detail of information submitted in subsection (A). The Department may elect to provide the applicant with a worksheet for this purpose.

(C) Revenue and expense projections, and cash flow projections for the applicant's business for the entire useful life of the claimed facility and assuming that the claimed pollution control facility is not erected, constructed or installed.

(D) A projection of the applicant's future capital expenditures for pollution control facilities.

(E) A letter signed by the applicant authorizing the Department to contract with an independent certified public accountant to review the financial information provided by the

applicant. The applicant will agree to reimburse the Department for the cost of this review.

(F) Using the information submitted in subsections (A) through (D), the Department will calculate an Internal Rate of Return for the claimed facility by considering the claimed facility cost and annual incremental cash flow. The Internal Rate of Return will be compared to the reference rate of return:

(i) If the applicant's Internal Rate of Return is greater than the reference rate, the percent allocable will be 0 percent.

(ii) If the applicant's Internal Rate of Return is less than the reference rate, the percent allocable will be determined by the following formula:

$$P_A = \frac{(RROI - IRR)}{RROI} \times 100$$

where:

P<sub>A</sub> is the percentage of actual costs properly allocable to pollution control in percent, rounded off to the nearest whole number.

IRR is the Internal Rate of Return for the claimed facility.

RROI is the reference annual percent return on investment from Table 2.

(5) (6) When considering the estimated annual percent return on investment in the facility, subsection (2)(b) of this rule, and for applicants where pollution control facilities are not integral to the operation of the business, the following steps will be used:

- (a) Determine the claimed facility cost, average annual cash flow and useful life of the claimed facility. The Department may require additional information on or documentation of gross annual income estimates for evaluation purposes;
- (b) Determine the return on investment factor by dividing the claimed facility cost by the average annual cash flow;
- (c) Determine the annual percent return on investment by using Table 1. At the top of Table 1, find the number equal to the useful life of the claimed facility. In the column under this useful life number, find the number closest to the return on investment factor. Follow this row to the left until reaching the first column. The number in the first column is the annual percent return on investment for the claimed facility. For a useful life greater than 30 years, or percent return on investment greater than 25 percent, Table 1 can be extended by utilizing the following equation:

$$I_R = \frac{1 - (1+i)^{-n}}{i}$$

where:

I<sub>R</sub> is the return on investment factor.

i is the annual percent return on investment.

n is the useful life of the claimed facility.

- (d) Determine the reference annual percent return on investment from Table 2. Select the reference percent return from Table 2 that corresponds with the year construction was completed on the claimed facility. For each future calendar year not shown in Table 2, the reference percent return shall be the five-year average of the rate of return before taxes on ~~stockholders' equity~~ total assets for all United States manufacturing corporations for the five years prior to the calendar year of interest;
- (e) Determine the portion of actual costs properly allocable to pollution control from the following equation:

$$P_A = \frac{(RROI - ROI)}{RROI} \times 100$$

where:

$P_A$  is the percentage of actual costs properly allocable to pollution control in percent, rounded off to the nearest whole number.

ROI is the annual percent return on investment from Table 1.

RROI is the reference annual percent return on investment from Table 2.

If ROI is greater than or equal to RROI, then the portion of actual costs properly allocable to pollution control shall be zero percent.

#### 340-16-035 PROCEDURE TO REVOKE CERTIFICATION

- (1) Pursuant to the procedures for a contested case under ORS 183.310 to 183.550, the Commission may order the revocation of the final tax credit certification if it finds that:
- (a) The certification was obtained by fraud or misrepresentation; or
  - (b) The holder of the certificate has failed substantially to operate the facility for the purpose of, and to the extent necessary for, preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or recycling or disposing of used oil as specified in such certificate, or has failed to operate the facility in compliance with Department or Commission statutes, rules, orders or permit conditions where applicable.
- (2) As soon as the order of revocation under this section has become final, the Commission shall notify the Department of Revenue and the county assessor of the county in which the facility is located of such order.
- (3) If the certification of a pollution control or solid waste, hazardous waste or used oil facility is ordered revoked pursuant to subsection (1)(a) of this rule, all prior tax relief provided to the holder of such certificate by virtue of such certificate shall be forfeited and the Department of Revenue or the proper county officers shall proceed to collect those taxes not paid by the certificate holder as a result of the tax relief provided to the holder under any provision of ORS 307.405, 316.097 and 317.116.

- (4) Except as provided in subsection (5) of this rule, if the certification of a pollution control or solid waste, hazardous waste or used oil facility is ordered revoked pursuant to subsection (1)(b) of this rule, the certificate holder shall be denied any further relief provided under ORS 307.405, 316.097 or 317.116 in connection with such facility, as the case may be, from and after the date that the order of revocation becomes final.
- (5) Once a determination has been made under section (1) of this rule, the Commission may revoke tax credits held for any facility or piece of equipment which is for the purpose of preventing, controlling, reducing, or eliminating pollution to the same media and which is at a location adjacent to the non-complying facility.
- (6) Upon notification by the certificate holder that the facility has been inspected by DEQ and found to be in compliance, the Commission may reinstate any revoked tax credit certification if the Commission finds the non-complying facility has been brought into compliance.
- (7) If the Commission reinstates certification, the Commission shall notify the Department of Revenue or the county assessor of the county in which the facility is located that the tax credit certification is reinstated for the remaining period of the tax credit, less the period of revocation. The period of revocation would be from the date the Commission revokes the certificate to the date the Commission reinstates the certificate.
- (8) The Commission may withhold revocation of a certificate when operation of a facility ceases if the certificate holder indicates in writing that the facility will be returned to operation within five years time. In the event that the facility is not returned to operation as indicated, the Commission shall revoke the certificate.

#### 340-16-040 PROCEDURES FOR TRANSFER OF A TAX CREDIT CERTIFICATE

To transfer a tax credit certificate from one holder to another, the Commission shall revoke the certificate and grant a new one to the new holder for the balance of the available tax credit following the procedure set forth in ORS 307.405, 316.097, and 317.116.

#### 340-16-045 FEES FOR TAX CREDIT CERTIFICATION

- (1) An application processing fee of one-half of one percent of the cost claimed in the application of the pollution control facility to a maximum of \$5,000 shall be paid with each application. However, if the application processing fee is less than \$50, no application processing fee shall be charged. A non-refundable filing fee of \$50 shall be paid with each application. No application is complete until the filing fee and processing fee are submitted. An amount equal to the filing fee and processing fee shall be submitted as a required part of any application for a pollution control facility tax credit.
- (2) Upon the Department's receipt of an application, the filing fee becomes non-refundable.
- (3) The application processing fee shall be refunded in whole if the application is rejected.
- (4) The fees shall not be considered by the Environmental Quality Commission as part of the cost of the facility to be certified.

- (5) All fees shall be made payable to the Department of Environmental Quality.
- (6) Notwithstanding subsection (1), the Department may increase the processing fee above the maximum of \$5,000, when an application necessitates an unusually extensive evaluation or analysis to determine the portion of the facility allocable to pollution control or material recovery.

340-16-050 TAXPAYERS RECEIVING TAX CREDIT

- (1) A person receiving a certificate under this section may take tax relief only under ORS 316.097 or 317.116, depending upon the tax status of the person's trade or business except if the taxpayer is a corporation organized under ORS Chapter 61 or 62, or any predecessor to ORS Chapter 62 relating to incorporation of cooperative associations, or is a subsequent transferee of such a corporation, the tax relief may be taken only under ORS 307.405.
- (2) If the person receiving the certificate is an electing small business corporation as defined in section 1361 of the Internal Revenue Code, each shareholder shall be entitled to take tax credit relief as provided in ORS 316.097, based on that shareholder's pro rata share of the certified cost of the facility.
- (3) If the person receiving the certificate is a partnership, each partner shall be entitled to take tax credit relief as provided in ORS 316.097, based on that partner's pro rata share of the certified cost of the facility.
- (4) Upon sale, exchange or other disposition of a facility written notice must be provided to the Department of Environmental Quality by the company, corporation or individual for whom the tax credit certificate has been issued. Upon request, the taxpayer shall provide a copy of the contract or other evidence of disposition of the property to the Department of Environmental Quality.
- (5) The company, corporation or individual claiming the tax credit for a leased facility must provide a copy of a written agreement between the lessor and lessee designating the party to receive the tax credit and a copy of the complete and current lease agreement for the facility.
- (6) The taxpayer claiming the tax credit for a facility with more than one owner shall provide a copy of a written agreement between the owners designating the party or parties to receive the tax credit certificate.



TABLE 1

RETURN ON INVESTMENT PERCENTAGE  
 BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW)  
 AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY  
 01/06/84

X R.O.I.	EXPECTED USEFUL LIFE IN YEARS									
	1	2	3	4	5	6	7	8	9	10
0.00	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	10.000
0.25	0.998	1.993	2.985	3.975	4.963	5.948	6.931	7.911	8.889	9.864
0.50	0.995	1.985	2.970	3.950	4.926	5.896	6.862	7.823	8.779	9.730
0.75	0.993	1.978	2.956	3.926	4.889	5.846	6.795	7.737	8.672	9.600
1.00	0.990	1.970	2.941	3.902	4.853	5.795	6.728	7.652	8.566	9.471
1.25	0.988	1.963	2.927	3.878	4.818	5.746	6.663	7.568	8.462	9.346
1.50	0.985	1.956	2.912	3.854	4.783	5.697	6.598	7.486	8.361	9.222
1.75	0.983	1.949	2.898	3.831	4.748	5.649	6.535	7.405	8.260	9.101
2.00	0.980	1.942	2.884	3.808	4.713	5.601	6.472	7.325	8.162	8.983
2.25	0.978	1.934	2.870	3.785	4.679	5.554	6.410	7.247	8.066	8.866
2.50	0.976	1.927	2.856	3.762	4.646	5.503	6.349	7.170	7.971	8.752
2.75	0.973	1.920	2.842	3.739	4.613	5.462	6.289	7.094	7.878	8.640
3.00	0.971	1.913	2.829	3.717	4.580	5.417	6.230	7.020	7.786	8.530
3.25	0.969	1.907	2.815	3.695	4.547	5.373	6.172	6.946	7.696	8.422
3.50	0.966	1.900	2.802	3.673	4.515	5.329	6.115	6.874	7.608	8.317
3.75	0.964	1.893	2.788	3.651	4.483	5.285	6.058	6.803	7.521	8.213
4.00	0.962	1.886	2.775	3.630	4.452	5.242	6.002	6.733	7.435	8.111
4.25	0.959	1.879	2.762	3.609	4.421	5.200	5.947	6.664	7.351	8.011
4.50	0.957	1.873	2.749	3.588	4.390	5.158	5.893	6.596	7.267	7.913
4.75	0.955	1.866	2.736	3.567	4.360	5.117	5.839	6.529	7.188	7.816
5.00	0.952	1.859	2.723	3.546	4.329	5.076	5.786	6.463	7.108	7.722
5.25	0.950	1.853	2.711	3.525	4.300	5.035	5.734	6.398	7.029	7.629
5.50	0.948	1.846	2.698	3.505	4.270	4.996	5.683	6.335	6.952	7.538
5.75	0.946	1.840	2.685	3.485	4.241	4.956	5.632	6.272	6.876	7.448

X R.O.I.	EXPECTED USEFUL LIFE IN YEARS									
	11	12	13	14	15	16	17	18	19	20
0.00	11.000	12.000	13.000	14.000	15.000	16.000	17.000	18.000	19.000	20.000
0.25	10.937	11.907	12.775	13.741	14.704	15.665	16.623	17.580	18.533	19.484
0.50	10.677	11.619	12.554	13.489	14.417	15.340	16.259	17.173	18.082	18.987
0.75	10.521	11.435	12.342	13.243	14.137	15.024	15.905	16.779	17.647	18.508
1.00	10.368	11.255	12.134	13.004	13.865	14.713	15.562	16.398	17.225	18.046
1.25	10.218	11.079	11.930	12.771	13.601	14.420	15.230	16.030	16.819	17.599
1.50	10.071	10.908	11.732	12.543	13.343	14.131	14.908	15.673	16.426	17.169
1.75	9.927	10.740	11.538	12.322	13.093	13.850	14.595	15.327	16.046	16.753
2.00	9.787	10.575	11.348	12.106	12.849	13.573	14.292	14.992	15.678	16.351
2.25	9.649	10.415	11.164	11.896	12.612	13.313	13.998	14.668	15.323	15.964
2.50	9.514	10.258	10.933	11.691	12.381	13.055	13.712	14.353	14.979	15.589
2.75	9.382	10.104	10.807	11.491	12.157	12.805	13.435	14.049	14.644	15.227
3.00	9.253	9.954	10.635	11.294	11.938	12.561	13.166	13.754	14.324	14.877
3.25	9.126	9.807	10.467	11.106	11.725	12.324	12.905	13.467	14.012	14.539
3.50	9.002	9.663	10.303	10.921	11.517	12.094	12.651	13.190	13.710	14.212
3.75	8.880	9.523	10.142	10.740	11.315	11.870	12.405	12.920	13.417	13.896
4.00	8.760	9.385	9.985	10.563	11.119	11.652	12.166	12.659	13.134	13.590
4.25	8.644	9.250	9.833	10.391	10.927	11.440	11.933	12.406	12.859	13.294
4.50	8.527	9.119	9.683	10.223	10.740	11.234	11.707	12.160	12.573	13.008
4.75	8.417	8.990	9.537	10.059	10.557	11.033	11.482	11.921	12.335	12.731
5.00	8.306	8.863	9.394	9.899	10.380	10.833	11.274	11.690	12.085	12.462
5.25	8.198	8.740	9.254	9.742	10.204	10.647	11.066	11.465	11.843	12.202
5.50	8.093	8.619	9.117	9.590	10.034	10.462	10.865	11.246	11.608	11.950
5.75	7.989	8.500	8.983	9.441	9.873	10.282	10.688	11.034	11.379	11.706

TABLE 1  
 RETURN ON INVESTMENT PERCENTAGE  
 BASED ON P.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW)  
 AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY  
 01/01/74

EXPECTED USEFUL LIFE IN YEARS										
P.O.I.	21	22	23	24	25	26	27	28	29	30
0.00	21.000	22.000	23.000	24.000	25.000	26.000	27.000	28.000	29.000	30.000
0.25	20.433	21.380	22.324	23.266	24.205	25.143	26.077	27.010	27.940	28.868
0.50	19.888	20.784	21.676	22.563	23.446	24.324	25.198	26.063	26.933	27.794
0.75	19.363	20.211	21.053	21.889	22.719	23.542	24.359	25.171	25.976	26.775
1.00	18.857	19.650	20.436	21.213	22.023	22.795	23.560	24.316	25.066	25.805
1.25	18.370	19.131	19.882	20.624	21.357	22.081	22.796	23.503	24.200	24.889
1.50	17.900	18.621	19.331	20.030	20.720	21.399	22.068	22.727	23.376	24.016
1.75	17.448	18.130	18.801	19.461	20.109	20.746	21.372	21.987	22.592	23.188
2.00	17.011	17.653	18.292	18.914	19.523	20.121	20.707	21.281	21.844	22.396
2.25	16.590	17.203	17.803	18.389	18.962	19.523	20.072	20.602	21.132	21.645
2.50	16.183	16.745	17.332	17.895	18.424	18.951	19.464	19.965	20.454	20.930
2.75	15.793	16.343	16.879	17.401	17.908	18.402	18.883	19.351	19.806	20.249
3.00	15.415	15.977	16.444	16.936	17.413	17.877	18.327	18.764	19.188	19.600
3.25	15.050	15.545	16.024	16.482	16.938	17.373	17.795	18.203	18.599	18.982
3.50	14.698	15.167	15.620	16.058	16.482	16.890	17.285	17.667	18.036	18.392
3.75	14.358	14.803	15.232	15.645	16.043	16.427	16.797	17.154	17.498	17.829
4.00	14.029	14.451	14.857	15.247	15.622	15.983	16.330	16.663	16.984	17.292
4.25	13.712	14.112	14.496	14.864	15.217	15.556	15.881	16.193	16.492	16.779
4.50	13.405	13.784	14.148	14.495	14.828	15.147	15.451	15.743	16.022	16.289
4.75	13.108	13.462	13.812	14.141	14.454	14.753	15.039	15.312	15.572	15.820
5.00	12.821	13.163	13.489	13.799	14.094	14.375	14.643	14.898	15.141	15.372
5.25	12.544	12.868	13.176	13.469	13.747	14.012	14.263	14.502	14.728	14.944
5.50	12.275	12.583	12.875	13.152	13.414	13.662	13.895	14.121	14.333	14.534
5.75	12.015	12.308	12.584	12.846	13.093	13.326	13.547	13.756	13.954	14.141

EXPECTED USEFUL LIFE IN YEARS										
P.O.I.	1	2	3	4	5	6	7	8	9	10
6.00	0.943	1.833	2.673	3.465	4.212	4.917	5.582	6.210	6.802	7.360
6.25	0.941	1.827	2.661	3.445	4.184	4.879	5.533	6.149	6.728	7.274
6.50	0.937	1.821	2.648	3.426	4.156	4.841	5.485	6.089	6.656	7.189
6.75	0.937	1.814	2.636	3.406	4.128	4.804	5.437	6.030	6.585	7.105
7.00	0.935	1.803	2.624	3.387	4.100	4.767	5.389	5.971	6.515	7.024
7.25	0.932	1.802	2.612	3.365	4.073	4.730	5.343	5.914	6.457	6.943
7.50	0.930	1.796	2.601	3.349	4.046	4.694	5.297	5.857	6.379	6.864
7.75	0.928	1.789	2.589	3.331	4.019	4.658	5.251	5.802	6.312	6.786
8.00	0.925	1.783	2.577	3.312	3.993	4.623	5.206	5.747	6.247	6.710
8.25	0.924	1.777	2.566	3.294	3.967	4.588	5.162	5.693	6.182	6.635
8.50	0.922	1.771	2.554	3.276	3.941	4.554	5.119	5.639	6.119	6.561
8.75	0.920	1.765	2.543	3.258	3.915	4.520	5.075	5.587	6.057	6.489
9.00	0.917	1.759	2.531	3.240	3.890	4.486	5.033	5.535	5.995	6.418
9.25	0.915	1.753	2.520	3.222	3.865	4.453	4.991	5.484	5.935	6.343
9.50	0.913	1.747	2.509	3.204	3.840	4.420	4.950	5.433	5.875	6.274
9.75	0.911	1.741	2.498	3.187	3.815	4.387	4.909	5.384	5.817	6.211
10.00	0.909	1.736	2.487	3.170	3.791	4.355	4.868	5.335	5.759	6.145
10.25	0.907	1.730	2.476	3.153	3.767	4.324	4.829	5.287	5.702	6.079
10.50	0.905	1.724	2.465	3.136	3.743	4.292	4.789	5.239	5.644	6.015
10.75	0.903	1.718	2.454	3.119	3.719	4.261	4.751	5.192	5.591	5.951
11.00	0.901	1.713	2.444	3.102	3.694	4.231	4.712	5.146	5.537	5.889
11.25	0.899	1.707	2.433	3.086	3.673	4.200	4.674	5.101	5.484	5.828
11.50	0.897	1.701	2.423	3.070	3.650	4.170	4.637	5.056	5.431	5.763
11.75	0.895	1.696	2.412	3.053	3.627	4.141	4.600	5.011	5.379	5.700

TABLE 1

RETURN ON INVESTMENT PERCENTAGE  
 BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW)  
 AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY  
 01/06/84

X R.O.I.	EXPECTED USEFUL LIFE IN YEARS									
	11	12	13	14	15	16	17	18	19	20
6.00	7.887	8.384	8.853	9.295	9.712	10.106	10.477	10.829	11.158	11.470
6.25	7.737	8.270	8.725	9.153	9.556	9.935	10.291	10.627	10.943	11.241
6.50	7.689	8.159	8.600	9.014	9.403	9.768	10.111	10.432	10.735	11.019
6.75	7.593	8.050	8.477	8.878	9.253	9.605	9.935	10.243	10.532	10.803
7.00	7.499	7.943	8.358	8.745	9.108	9.447	9.763	10.059	10.336	10.594
7.25	7.406	7.838	8.240	8.616	8.966	9.292	9.596	9.880	10.145	10.391
7.50	7.315	7.735	8.123	8.489	8.827	9.142	9.434	9.706	9.959	10.194
7.75	7.226	7.635	8.014	8.365	8.692	8.995	9.276	9.537	9.779	10.004
8.00	7.139	7.536	7.904	8.244	8.559	8.851	9.122	9.372	9.604	9.813
8.25	7.053	7.439	7.796	8.126	8.430	8.712	8.971	9.212	9.433	9.638
8.50	6.969	7.345	7.691	8.010	8.304	8.575	8.825	9.055	9.268	9.463
8.75	6.886	7.252	7.583	7.897	8.181	8.442	8.683	8.904	9.107	9.294
9.00	6.805	7.161	7.487	7.784	8.061	8.313	8.544	8.756	8.950	9.129
9.25	6.726	7.071	7.388	7.678	7.943	8.186	8.403	8.612	8.798	8.968
9.50	6.647	6.984	7.291	7.572	7.828	8.062	8.276	8.471	8.650	8.812
9.75	6.570	6.898	7.196	7.468	7.716	7.942	8.147	8.335	8.505	8.661
10.00	6.495	6.814	7.103	7.367	7.606	7.824	8.022	8.201	8.365	8.514
10.25	6.421	6.731	7.012	7.267	7.499	7.709	7.899	8.072	8.228	8.370
10.50	6.348	6.650	6.923	7.170	7.394	7.596	7.779	7.945	8.095	8.231
10.75	6.277	6.570	6.836	7.075	7.291	7.486	7.663	7.822	7.966	8.095
11.00	6.207	6.492	6.750	6.982	7.194	7.379	7.549	7.702	7.839	7.963
11.25	6.138	6.416	6.666	6.891	7.093	7.274	7.438	7.586	7.716	7.835
11.50	6.070	6.341	6.593	6.801	6.997	7.172	7.329	7.470	7.596	7.710
11.75	6.003	6.267	6.503	6.714	6.903	7.072	7.223	7.358	7.480	7.588

X R.O.I.	EXPECTED USEFUL LIFE IN YEARS									
	21	22	23	24	25	26	27	28	29	30
6.00	11.764	12.042	12.303	12.550	12.783	13.003	13.211	13.406	13.591	13.765
6.25	11.521	11.784	12.032	12.266	12.485	12.692	12.887	13.070	13.242	13.404
6.50	11.285	11.535	11.770	11.991	12.198	12.392	12.575	12.746	12.907	13.059
6.75	11.057	11.294	11.517	11.725	11.921	12.104	12.275	12.436	12.586	12.727
7.00	10.836	11.061	11.272	11.469	11.654	11.826	11.987	12.137	12.275	12.409
7.25	10.621	10.836	11.036	11.222	11.396	11.558	11.709	11.850	11.981	12.104
7.50	10.413	10.617	10.807	10.983	11.147	11.299	11.441	11.573	11.696	11.810
7.75	10.212	10.406	10.585	10.752	10.907	11.050	11.184	11.307	11.422	11.529
8.00	10.017	10.201	10.371	10.529	10.675	10.810	10.935	11.051	11.158	11.258
8.25	9.827	10.002	10.164	10.313	10.451	10.578	10.696	10.804	10.903	10.997
8.50	9.644	9.810	9.963	10.104	10.234	10.354	10.465	10.566	10.660	10.747
8.75	9.465	9.623	9.769	9.902	10.025	10.133	10.242	10.337	10.425	10.506
9.00	9.292	9.442	9.580	9.707	9.823	9.929	10.027	10.116	10.198	10.274
9.25	9.124	9.267	9.398	9.517	9.627	9.727	9.819	9.903	9.980	10.050
9.50	8.961	9.097	9.221	9.334	9.438	9.532	9.618	9.697	9.769	9.835
9.75	8.803	8.932	9.049	9.157	9.254	9.343	9.425	9.499	9.566	9.627
10.00	8.649	8.772	8.883	8.985	9.077	9.161	9.237	9.307	9.370	9.427
10.25	8.499	8.616	8.722	8.818	8.905	8.984	9.056	9.121	9.180	9.234
10.50	8.354	8.465	8.566	8.657	8.739	8.814	8.881	8.942	8.997	9.047
10.75	8.212	8.318	8.414	8.500	8.578	8.648	8.712	8.769	8.821	8.868
11.00	8.075	8.176	8.266	8.348	8.422	8.488	8.548	8.602	8.650	8.694
11.25	7.941	8.037	8.123	8.201	8.270	8.333	8.389	8.440	8.485	8.526
11.50	7.811	7.903	7.984	8.059	8.124	8.183	8.236	8.283	8.326	8.364
11.75	7.685	7.772	7.850	7.919	7.981	8.037	8.087	8.131	8.171	8.207

TABLE 1

RETURN ON INVESTMENT PERCENTAGE  
 BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW)  
 AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY  
 01/06/84

X R.O.I.	EXPECTED USEFUL LIFE IN YEARS									
	1	2	3	4	5	6	7	8	9	10
12.00	0.893	1.490	2.402	3.037	3.605	4.111	4.564	4.968	5.328	5.650
12.25	0.891	1.685	2.392	3.021	3.583	4.082	4.528	4.925	5.278	5.593
12.50	0.889	1.679	2.331	3.006	3.561	4.054	4.492	4.882	5.228	5.536
12.75	0.887	1.674	2.371	2.990	3.539	4.026	4.457	4.840	5.180	5.481
13.00	0.885	1.668	2.361	2.974	3.517	3.998	4.423	4.799	5.132	5.426
13.25	0.883	1.663	2.351	2.959	3.496	3.970	4.388	4.758	5.084	5.372
13.50	0.881	1.657	2.341	2.944	3.475	3.943	4.355	4.718	5.038	5.320
13.75	0.879	1.652	2.331	2.929	3.454	3.915	4.321	4.678	4.992	5.267
14.00	0.877	1.647	2.322	2.914	3.433	3.889	4.288	4.639	4.946	5.216
14.25	0.875	1.641	2.312	2.899	3.413	3.862	4.256	4.600	4.902	5.166
14.50	0.873	1.636	2.302	2.884	3.392	3.835	4.224	4.562	4.858	5.115
14.75	0.871	1.631	2.293	2.869	3.372	3.810	4.192	4.524	4.814	5.067
15.00	0.870	1.626	2.283	2.855	3.352	3.784	4.160	4.487	4.772	5.017
15.25	0.868	1.621	2.274	2.841	3.332	3.759	4.129	4.451	4.729	4.971
15.50	0.866	1.615	2.264	2.826	3.313	3.734	4.099	4.415	4.688	4.925
15.75	0.864	1.610	2.255	2.812	3.293	3.709	4.068	4.379	4.647	4.879
16.00	0.862	1.605	2.246	2.798	3.274	3.685	4.039	4.344	4.607	4.833
16.25	0.860	1.600	2.237	2.784	3.255	3.660	4.009	4.309	4.567	4.789
16.50	0.858	1.595	2.228	2.770	3.235	3.636	3.980	4.274	4.527	4.745
16.75	0.857	1.590	2.219	2.757	3.215	3.613	3.951	4.241	4.489	4.701
17.00	0.855	1.585	2.210	2.743	3.199	3.589	3.922	4.207	4.451	4.659
17.25	0.853	1.580	2.201	2.730	3.181	3.566	3.894	4.174	4.413	4.617
17.50	0.851	1.575	2.192	2.716	3.163	3.543	3.866	4.142	4.376	4.575
17.75	0.849	1.570	2.183	2.703	3.145	3.520	3.839	4.109	4.339	4.534

X R.O.I.	EXPECTED USEFUL LIFE IN YEARS									
	11	12	13	14	15	16	17	18	19	20
12.00	5.939	6.194	6.424	6.628	6.811	6.974	7.120	7.250	7.366	7.469
12.25	5.873	6.123	6.346	6.544	6.721	6.878	7.019	7.143	7.255	7.354
12.50	5.810	6.053	6.270	6.462	6.633	6.785	6.920	7.040	7.147	7.241
12.75	5.748	5.985	6.195	6.381	6.547	6.693	6.823	6.939	7.041	7.132
13.00	5.687	5.918	6.122	6.302	6.462	6.604	6.729	6.840	6.938	7.025
13.25	5.627	5.852	6.050	6.225	6.380	6.516	6.637	6.743	6.837	6.921
13.50	5.568	5.787	5.979	6.149	6.299	6.431	6.547	6.649	6.739	6.819
13.75	5.510	5.723	5.910	6.075	6.220	6.347	6.459	6.557	6.644	6.720
14.00	5.453	5.660	5.842	6.002	6.142	6.265	6.373	6.467	6.550	6.623
14.25	5.397	5.599	5.776	5.931	6.066	6.185	6.289	6.380	6.459	6.529
14.50	5.341	5.533	5.710	5.861	5.992	6.106	6.206	6.294	6.370	6.437
14.75	5.287	5.479	5.646	5.792	5.919	6.029	6.126	6.210	6.283	6.347
15.00	5.234	5.421	5.583	5.724	5.847	5.954	6.047	6.128	6.198	6.259
15.25	5.181	5.363	5.521	5.653	5.777	5.881	5.970	6.048	6.115	6.174
15.50	5.130	5.307	5.461	5.594	5.709	5.803	5.895	5.969	6.034	6.090
15.75	5.079	5.252	5.401	5.530	5.641	5.738	5.821	5.893	5.955	6.009
16.00	5.029	5.197	5.342	5.466	5.575	5.663	5.749	5.813	5.877	5.929
16.25	4.979	5.144	5.285	5.406	5.511	5.601	5.688	5.745	5.802	5.851
16.50	4.931	5.091	5.222	5.346	5.447	5.534	5.607	5.673	5.728	5.775
16.75	4.883	5.039	5.173	5.287	5.385	5.469	5.541	5.603	5.655	5.703
17.00	4.836	4.988	5.119	5.229	5.324	5.405	5.475	5.534	5.584	5.628
17.25	4.790	4.938	5.065	5.172	5.264	5.343	5.410	5.467	5.515	5.557
17.50	4.745	4.889	5.012	5.117	5.206	5.281	5.346	5.401	5.447	5.487
17.75	4.700	4.841	4.960	5.062	5.148	5.221	5.283	5.336	5.381	5.419

TABLE 1

RETURN ON INVESTMENT PERCENTAGE  
 BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW)  
 AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY  
 01/06/84

ATTACHMENT A-20

R.O.I.	EXPECTED USEFUL LIFE IN YEARS									
	21	22	23	24	25	26	27	28	29	30
12.00	7.562	7.645	7.718	7.784	7.843	7.896	7.943	7.984	8.022	8.055
12.25	7.442	7.521	7.591	7.653	7.709	7.759	7.803	7.842	7.877	7.908
12.50	7.326	7.401	7.467	7.526	7.579	7.626	7.667	7.704	7.737	7.766
12.75	7.212	7.283	7.347	7.403	7.453	7.497	7.536	7.571	7.602	7.629
13.00	7.102	7.170	7.230	7.283	7.330	7.372	7.409	7.441	7.470	7.496
13.25	6.994	7.059	7.116	7.166	7.211	7.250	7.285	7.316	7.343	7.367
13.50	6.889	6.951	7.005	7.053	7.095	7.132	7.165	7.194	7.219	7.242
13.75	6.787	6.845	6.897	6.942	6.982	7.017	7.048	7.075	7.099	7.120
14.00	6.687	6.743	6.792	6.835	6.873	6.906	6.935	6.961	6.983	7.003
14.25	6.590	6.643	6.690	6.731	6.766	6.798	6.825	6.849	6.870	6.889
14.50	6.495	6.546	6.590	6.629	6.663	6.693	6.718	6.741	6.761	6.773
14.75	6.403	6.451	6.493	6.530	6.562	6.590	6.615	6.636	6.654	6.670
15.00	6.312	6.359	6.399	6.434	6.464	6.491	6.514	6.534	6.551	6.566
15.25	6.225	6.269	6.307	6.340	6.369	6.394	6.415	6.434	6.450	6.465
15.50	6.139	6.181	6.217	6.249	6.276	6.299	6.320	6.337	6.353	6.366
15.75	6.055	6.095	6.130	6.159	6.185	6.208	6.227	6.243	6.258	6.270
16.00	5.973	6.011	6.044	6.073	6.097	6.118	6.136	6.152	6.166	6.177
16.25	5.893	5.930	5.961	5.988	6.011	6.031	6.048	6.063	6.076	6.087
16.50	5.815	5.850	5.880	5.905	5.927	5.946	5.962	5.976	5.988	5.999
16.75	5.739	5.772	5.801	5.825	5.846	5.864	5.879	5.892	5.903	5.913
17.00	5.665	5.696	5.723	5.746	5.766	5.783	5.798	5.810	5.820	5.829
17.25	5.592	5.622	5.648	5.670	5.689	5.705	5.718	5.730	5.740	5.748
17.50	5.521	5.550	5.574	5.595	5.613	5.628	5.641	5.652	5.661	5.669
17.75	5.452	5.479	5.502	5.522	5.539	5.553	5.565	5.575	5.584	5.592

R.O.I.	EXPECTED USEFUL LIFE IN YEARS									
	1	2	3	4	5	6	7	8	9	10
18.00	0.847	1.566	2.174	2.690	3.127	3.498	3.812	4.078	4.303	4.494
18.25	0.846	1.561	2.166	2.677	3.110	3.475	3.785	4.046	4.267	4.454
18.50	0.844	1.556	2.157	2.664	3.092	3.453	3.758	4.015	4.232	4.415
18.75	0.842	1.551	2.148	2.651	3.075	3.431	3.732	3.985	4.198	4.377
19.00	0.840	1.547	2.140	2.639	3.058	3.410	3.706	3.954	4.163	4.339
19.25	0.839	1.542	2.131	2.626	3.041	3.388	3.680	3.925	4.130	4.302
19.50	0.837	1.537	2.123	2.613	3.024	3.367	3.655	3.895	4.096	4.265
19.75	0.835	1.532	2.115	2.601	3.007	3.346	3.629	3.866	4.063	4.228
20.00	0.833	1.528	2.106	2.589	2.991	3.325	3.605	3.837	4.031	4.192
20.25	0.832	1.523	2.093	2.577	2.974	3.305	3.580	3.809	3.999	4.157
20.50	0.830	1.519	2.090	2.564	2.958	3.285	3.556	3.781	3.967	4.122
20.75	0.828	1.514	2.082	2.552	2.942	3.265	3.532	3.753	3.936	4.088
21.00	0.826	1.509	2.074	2.540	2.926	3.245	3.508	3.726	3.905	4.054
21.25	0.825	1.505	2.066	2.529	2.910	3.225	3.484	3.699	3.875	4.021
21.50	0.823	1.500	2.058	2.517	2.895	3.205	3.461	3.672	3.845	3.985
21.75	0.821	1.496	2.050	2.505	2.879	3.186	3.438	3.645	3.815	3.955
22.00	0.820	1.492	2.042	2.494	2.864	3.167	3.416	3.619	3.786	3.923
22.25	0.818	1.487	2.034	2.482	2.848	3.145	3.393	3.593	3.757	3.892
22.50	0.816	1.483	2.027	2.471	2.833	3.124	3.371	3.568	3.729	3.860
22.75	0.815	1.478	2.019	2.459	2.818	3.111	3.349	3.543	3.701	3.830
23.00	0.813	1.474	2.011	2.448	2.803	3.092	3.327	3.518	3.673	3.799
23.25	0.811	1.470	2.004	2.437	2.789	3.074	3.306	3.493	3.646	3.769
23.50	0.810	1.465	1.996	2.426	2.774	3.056	3.284	3.469	3.619	3.740
23.75	0.808	1.461	1.989	2.415	2.760	3.038	3.263	3.445	3.592	3.711

RETURN ON INVESTMENT PERCENTAGE  
 BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW)  
 AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY  
 01/05/84

X R.O.I.	EXPECTED USEFUL LIFE IN YEARS									
	11	12	13	14	15	16	17	18	19	20
18.00	4.656	4.793	4.910	5.008	5.092	5.162	5.222	5.273	5.316	5.353
18.25	4.613	4.746	4.860	4.955	5.036	5.105	5.162	5.211	5.253	5.288
18.50	4.570	4.700	4.810	4.903	4.982	5.048	5.104	5.151	5.191	5.224
18.75	4.528	4.655	4.762	4.852	4.928	4.992	5.046	5.091	5.130	5.162
19.00	4.486	4.611	4.715	4.802	4.876	4.938	4.990	5.033	5.070	5.101
19.25	4.446	4.567	4.668	4.753	4.824	4.884	4.934	4.976	5.012	5.041
19.50	4.406	4.523	4.622	4.705	4.774	4.832	4.880	4.921	4.954	4.983
19.75	4.366	4.481	4.577	4.657	4.724	4.780	4.827	4.866	4.898	4.926
20.00	4.327	4.439	4.533	4.611	4.675	4.730	4.775	4.812	4.843	4.870
20.25	4.289	4.398	4.489	4.565	4.628	4.680	4.723	4.760	4.790	4.815
20.50	4.251	4.358	4.446	4.520	4.581	4.631	4.673	4.708	4.737	4.761
20.75	4.214	4.318	4.404	4.475	4.534	4.583	4.624	4.657	4.685	4.708
21.00	4.177	4.273	4.362	4.432	4.489	4.535	4.576	4.609	4.635	4.657
21.25	4.141	4.240	4.321	4.389	4.444	4.490	4.528	4.559	4.585	4.606
21.50	4.105	4.202	4.281	4.347	4.401	4.445	4.481	4.511	4.536	4.557
21.75	4.070	4.164	4.242	4.305	4.358	4.400	4.436	4.465	4.488	4.508
22.00	4.035	4.127	4.203	4.265	4.315	4.357	4.391	4.419	4.442	4.460
22.25	4.001	4.091	4.164	4.224	4.274	4.314	4.347	4.374	4.396	4.414
22.50	3.968	4.055	4.127	4.185	4.233	4.272	4.303	4.329	4.350	4.368
22.75	3.935	4.020	4.090	4.148	4.193	4.230	4.261	4.286	4.306	4.323
23.00	3.902	3.985	4.053	4.108	4.153	4.189	4.219	4.243	4.263	4.279
23.25	3.870	3.951	4.017	4.071	4.114	4.149	4.178	4.201	4.220	4.235
23.50	3.838	3.917	3.982	4.034	4.076	4.110	4.138	4.160	4.178	4.193
23.75	3.807	3.884	3.947	3.997	4.038	4.071	4.098	4.120	4.137	4.151

X R.O.I.	EXPECTED USEFUL LIFE IN YEARS									
	21	22	23	24	25	26	27	28	29	30
18.00	5.384	5.410	5.432	5.451	5.467	5.480	5.492	5.502	5.510	5.517
18.25	5.317	5.342	5.363	5.381	5.397	5.409	5.420	5.429	5.437	5.444
18.50	5.252	5.276	5.296	5.313	5.328	5.340	5.350	5.359	5.366	5.372
18.75	5.189	5.212	5.231	5.247	5.261	5.272	5.282	5.290	5.297	5.303
19.00	5.127	5.149	5.167	5.182	5.195	5.206	5.215	5.223	5.229	5.235
19.25	5.066	5.087	5.104	5.119	5.131	5.141	5.150	5.157	5.163	5.168
19.50	5.007	5.026	5.043	5.057	5.069	5.078	5.086	5.093	5.099	5.104
19.75	4.948	4.967	4.983	4.996	5.007	5.017	5.024	5.031	5.036	5.041
20.00	4.891	4.909	4.925	4.937	4.948	4.956	4.964	4.970	4.975	4.979
20.25	4.836	4.853	4.867	4.879	4.889	4.897	4.904	4.910	4.915	4.919
20.50	4.781	4.797	4.811	4.823	4.832	4.840	4.846	4.852	4.856	4.860
20.75	4.727	4.743	4.756	4.767	4.776	4.783	4.790	4.795	4.799	4.802
21.00	4.675	4.690	4.703	4.713	4.721	4.728	4.734	4.739	4.743	4.746
21.25	4.624	4.638	4.650	4.660	4.668	4.674	4.680	4.685	4.688	4.691
21.50	4.573	4.587	4.598	4.608	4.615	4.622	4.627	4.631	4.635	4.638
21.75	4.524	4.537	4.548	4.557	4.564	4.570	4.575	4.579	4.582	4.585
22.00	4.476	4.488	4.499	4.507	4.514	4.520	4.524	4.528	4.531	4.534
22.25	4.428	4.440	4.450	4.458	4.465	4.470	4.475	4.478	4.481	4.484
22.50	4.382	4.393	4.403	4.410	4.417	4.422	4.426	4.429	4.432	4.434
22.75	4.336	4.347	4.356	4.364	4.369	4.374	4.378	4.381	4.384	4.386
23.00	4.292	4.302	4.311	4.318	4.323	4.328	4.332	4.335	4.337	4.339
23.25	4.248	4.258	4.266	4.273	4.278	4.282	4.286	4.289	4.291	4.293
23.50	4.205	4.214	4.222	4.228	4.234	4.238	4.241	4.244	4.246	4.248
23.75	4.163	4.172	4.179	4.185	4.190	4.194	4.197	4.200	4.202	4.203

TABLE 1

RETURN ON INVESTMENT PERCENTAGE  
 BASED ON R.O.I. FACTOR (FACILITY COST/AVRG. ANNUAL CASH FLOW)  
 AND THE EXPECTED USEFUL LIFE OF THE NEW FACILITY  
 01/06/84

*****										
EXPECTED USEFUL LIFE IN YEARS										
X	1	2	3	4	5	6	7	8	9	10
R.O.I.										
24.00	0.806	1.457	1.981	2.404	2.745	3.020	3.242	3.421	3.566	3.682
24.25	0.805	1.453	1.974	2.393	2.731	3.003	3.222	3.398	3.539	3.653
24.50	0.803	1.448	1.967	2.383	2.717	2.986	3.201	3.375	3.514	3.625
24.75	0.802	1.444	1.959	2.372	2.703	2.968	3.181	3.352	3.488	3.596
25.00	0.800	1.440	1.952	2.362	2.689	2.951	3.161	3.329	3.463	3.571
*****										
EXPECTED USEFUL LIFE IN YEARS										
X	11	12	13	14	15	16	17	18	19	20
R.O.I.										
24.00	3.776	3.851	3.912	3.962	4.001	4.033	4.059	4.080	4.097	4.110
24.25	3.745	3.819	3.879	3.926	3.965	3.996	4.021	4.041	4.057	4.070
24.50	3.715	3.787	3.845	3.892	3.929	3.959	3.983	4.003	4.018	4.031
24.75	3.686	3.756	3.812	3.858	3.894	3.923	3.946	3.965	3.980	3.992
25.00	3.656	3.725	3.760	3.824	3.859	3.887	3.910	3.928	3.942	3.954
*****										
EXPECTED USEFUL LIFE IN YEARS										
X	21	22	23	24	25	26	27	28	29	30
R.O.I.										
24.00	4.121	4.130	4.137	4.143	4.147	4.151	4.154	4.157	4.159	4.160
24.25	4.081	4.089	4.096	4.101	4.106	4.109	4.112	4.114	4.116	4.118
24.50	4.041	4.049	4.055	4.060	4.065	4.068	4.071	4.073	4.075	4.076
24.75	4.002	4.009	4.015	4.020	4.024	4.028	4.030	4.032	4.034	4.035
25.00	3.963	3.970	3.976	3.981	3.985	3.988	3.990	3.992	3.994	3.995
*****										

Table 2

Reference Annual Percent Return on Investment  
For Applications Received Before February 1, 1993

<u>Year Construction Completed</u>	<u>Reference Percent Return</u>
1977	21.0
1978	21.9
1979	22.5
1980	23.0
1981	23.6
1982	23.4
1983	21.5
1984	19.9
1985	18.5
1986	17.4
1987	16.1
1988	17.1
1989	18.3
1990	18.3
1991	18.1
1992	17.0

Calculation of the reference percent return was made by averaging the average annual percent return before taxes on stockholders' equity for all manufacturing corporations as found in the Quarterly Financial Report for Manufacturing, Mining, and Trade Corporations, published by the U.S. Department of Commerce, Bureau of the Census, for the five years prior to the year shown.

6/92



Table 2

Reference Annual Percent Return on Investment  
For Applications Received on or After February 1, 1993

<u>Year Construction Completed</u>	<u>Reference Percent Return</u>
1989	7.3
1990	7.3
1991	7.2
1992	6.8

Calculation of the reference percent return was made by averaging the average annual percent return before taxes on total assets for all manufacturing corporations as found in the Quarterly Financial Report for Manufacturing, Mining, and Trade Corporations, published by the U.S. Department of Commerce, Bureau of the Census, for the five years prior to the year shown.

1/93

# NOTICE OF PROPOSED RULEMAKING HEARING

(Rulemaking Statements and Statement of Fiscal Impact must accompany this form.)

**AGENCY:** Department of Environmental Quality

The above named agency gives notice of hearing.

**HEARING TO BE HELD:**

DATE:	TIME:	LOCATION:
February 16, 1993	1:30 p.m.	Room 3-A DEQ Headquarters Building 811 S.W. Sixth Avenue Portland, OR 97204

Hearings Officer: Brian Fields

Pursuant to the Statutory Authority of ORS 468.150 through 468.190, the following action is proposed:

**AMEND:** OAR 340-16-030.

Prior Notice Given; Hearing Requested by Interested persons  No Prior Notice Given

**SUMMARY:**

The proposed rule amendments will revise the methodology used to determine the portion of a pollution control facility cost properly allocable to pollution control for certain types of businesses. The proposed amendments will also change the reference rate of return used in evaluating applications. These amendments have been developed in response to the Environmental Quality Commission's announced intent to amend the tax credit program rules.

Interested persons may comment on the proposed rules orally or in writing at the hearing. Written comments received by the close of business on February 18, 1993 will also be considered. Written comments should be sent to and copies of the proposed rulemaking may be obtained from:

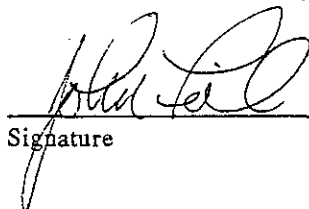
**AGENCY:** Department of Environmental Quality  
**ADDRESS:** 811 S.W. 6th Avenue  
Portland, Oregon 97204

**ATTN:** John Fink

**PHONE:** 229-6149 or Toll Free 1-800-452-4011

Signature

Date

 1/14/93

ATTACHMENT B-1

*Oregon Department of Environmental Quality*

# **A CHANCE TO COMMENT ON...**

**Amendments to Pollution Control Tax Credits Rule**

Date Issued:	February 1, 1993
Public Hearings:	February 16, 1993
Comments Due:	February 18, 1993

**WHO IS  
AFFECTED:**

Potential pollution control facilities tax credit program applicants including commercial landfill operators, solid and hazardous waste recycling businesses, environmental service providers, and other businesses with pollution control facilities that are integral to the operation of their business; other tax credit program applicants that derive economic benefits from pollution control facilities; and the general public.

**WHAT IS  
PROPOSED:**

The Department is proposing amendments to the Pollution Control Tax Credits Rule (OAR Chapter 340, Division 16) that would change the procedures used to evaluate the portion of a facility cost properly allocable to pollution control. These amendments will apply primarily to applicants where it is determined that pollution control facilities are integral to the applicant's business.

**WHAT ARE THE  
HIGHLIGHTS:**

Defines instances where pollution control facilities are to be considered integral to the operation of the applicant's business.

Establishes the methodology that the Department will use to evaluate the portion of facility cost properly allocable to pollution control in instances where pollution control facilities are integral to the applicant's business.

Establishes an alternate evaluation methodology and the level of financial information required from applicants in order for the Department to determine the portion of facility cost properly allocable to pollution control.

Changes the reference rate of return that is used in determining the portion of facility cost properly allocable to pollution control.

Provides other definitions and revisions of existing definitions, as necessary, to clarify and implement the proposed rule amendments.



811 S.W. 6th Avenue  
Portland, OR 97204

11/1/86

**FOR FURTHER INFORMATION:**

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

ATTACHMENT B-2

**HOW TO  
COMMENT:**

A Public Hearing to provide information and receive public comment is scheduled as follows:

Portland  
February 16, 1993  
1:30 p.m.

Room 3-A  
DEQ Headquarters Building  
811 S.W. Sixth Avenue  
Portland, OR 97204

Written comments must be received by 5:00 p.m. on February 18, 1993 at the following address:

Department of Environmental Quality  
811 S. W. 6th Avenue  
Portland, Oregon, 97204

ATTN: John Fink

A copy of the Proposed Rule Amendments may be reviewed at the above address. A copy may be obtained from the Department by calling John Fink at 229-6149 or calling Oregon toll free 1-800-452-4011.

**WHAT IS THE  
NEXT STEP:**

The Department will evaluate comments received and will make a recommendation to the Environmental Quality Commission. Interested parties can request to be notified of the date the Commission will consider the matter by writing to the Department at the above address.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Adoption of Amendments to  
Pollution Control Tax Credits Rule

Rulemaking Statements

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

1. Legal Authority

ORS 468.150 to 468.190.

2. Need for the Rule Amendments

On October 16, 1992 the Environmental Quality Commission announced its intent to amend the Pollution Control Tax Credits Rule, OAR Chapter 340, Division 16. The proposed amendments will revise the methodology used to determine the return on investment and percent allocable to pollution control for applicants where it is determined that pollution control facilities are integral to the applicant's business. These rule amendments were developed in response to the Commission's announcement.

3. Principal Documents Relied Upon in this Rulemaking

ORS 468.150 to 468.190.

OAR Chapter 340, Division 16.

Minutes of October 16, 1992 Meeting of the Environmental Quality Commission.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Adoption of Amendments to  
Pollution Control Tax Credits Rule

Fiscal and Economic Impact Statement

**Introduction**

The Department is proposing amendments to the pollution control facilities tax credit rule that would change the method used to determine the portion of the facility cost properly allocable to pollution control. These amendments would apply primarily to applicants and industries that have pollution control facilities as an integral part of their business activities.

The likely overall impact of the proposed amendments will be a reduction in the amount of tax credits certified. Since the Department has no control over the type, number, or total claimed facility cost of applications that could potentially be submitted, it is difficult for the Department to estimate the total possible fiscal and economic impact of the proposed rule amendments.

The Department estimates that these rule amendments would have applied to approximately 14 applications that were certified by the Commission in calendar year 1992 representing a total certified cost of \$21 million. This total represents less than 10 percent of the number of certificates issued in 1992, but approximately two-thirds of the total amount of tax credits certified in 1992.

These amendments will not result in an increase in the number of tax credit applications submitted, in total claimed facility costs, or in total certified costs. Any facilities or portions of facilities currently ineligible for program benefits will remain ineligible.

**General Public**

The general public likely will not incur any additional costs as a result of the proposed rule amendments.

Tax credits certified by the Commission can be claimed by a certificate holder as a direct credit against the certificate holder's State income tax liability, or for cooperatives and non-profit corporations, as a credit against ad valorem taxes. Since the proposed amendments will result in a loss or reduction of program benefits for some applicants, these credits will not be available to the applicant. Consequently, the general public will benefit from increases in income or ad valorem tax collections.

The Department expects that commercial landfill operators in the state will realize a reduction in program benefits. Since these landfill operators provide land disposal services for municipal solid waste collectors, it is possible that the landfill operators use potential pollution control tax credits to reduce fees charged to dispose of solid waste. Fees for disposal of solid waste are determined by a number of factors including competition from both in-state and out-of-state firms, transportation costs, etc. The Department has no evidence to suggest that the expectation of pollution control facilities tax credits impact landfill operators' fee structures.

### **Small Business**

These rule amendments will apply primarily to businesses where pollution control facilities are integral to the operation of the businesses. Typically, this will be in capital intensive industries. While a large number of small businesses utilize the tax credit program (primarily for CFC recovery equipment and Underground Storage Tank upgrades), the Department does not expect that a large number of small businesses will be impacted by the proposed rule amendments.

Some small waste recycling businesses and environmental service providers could realize a reduction in or loss of program benefits. For this to be the case, however, these businesses would have to be profitable to such an extent that the proposed percent allocable determinations would reduce their potential benefits. There is little rationale for the State to subsidize otherwise profitable businesses through the use of tax credits. In addition, pollution control facilities installed by these types of businesses are generally discretionary and are not installed in response to environmental requirements.

All applicants will have the opportunity to provide detailed financial information where they believe that the proposed rule does not adequately consider their specific financial situation. This could present a greater application preparation burden and expense for some small businesses in highly profitable industries.

### **Large Business**

Large businesses with significant amounts of capital invested in pollution control facilities are the most likely parties to be directly impacted by the proposed rule amendments. These businesses will likely see a reduction in program benefits. As is the case for small businesses, this reduction will occur only for profitable businesses. In

addition, any applicant adversely impacted by these amendments will have the opportunity to provide the Department with information necessary to determine the facility return on investment and percent allocable through an alternate methodology.

### **Local Governments**

Local governments are not eligible for the tax credit program certification and, therefore, a reduction in program benefits will not have a direct financial impact on local governments.

The tax credit program statutes and rules do allow cooperatives and non-profit corporations to claim credits against ad valorem taxes. A reduction in tax credit program benefits to such organizations could potentially result in an increase in ad valorem tax collections by local governments. Any such increase would likely be small since few of the organizations these rule amendments are likely to affect are cooperatives or non-profit corporations.

### **State Agencies**

The Department is already involved in processing tax credit applications and the proposed rule amendments will not impact staffing or budget requirements. The amendments could result in fewer tax credit applications being submitted and a reduction in workload for Department staff. Such a reduction would also be accompanied by a reduction in program revenue from tax credit application fees.

The changes in the methodology used to calculate the facility return on investment and percent allocable could simplify application processing. This may reduce the number of Department staff hours required to process tax credit applications.

There should be no impact on other agencies.

### **Assumptions**

There are no quantitative assumptions used in this analysis. As noted above, it is difficult for the Department to estimate the magnitude of the fiscal and economic impact of the proposed rule amendments because the Department has little influence over the type or number of applications that may be submitted.



State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Adoption of Amendments to  
Pollution Control Tax Credits Rule

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The proposed amendments to the pollution control facilities tax credits will change the method used to determine the return on investment and percent allocable to pollution control. These amendments would apply primarily to applicants and industries that have pollution control facilities as an integral part of their business activities.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes\_\_ No X

a. If yes, identify existing program/rule/activity:

Not applicable.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?


Yes\_\_\_ No\_\_\_ (if no, explain): Not applicable.

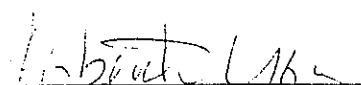
c. If no, apply the SAC Program criteria to the proposed rules. In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.


The pollution control facilities tax credit program has not been determined to be a land use program through the Department's State Agency Coordination Program. The proposed rule amendments change the method used to calculate return on investment and percent allocable to pollution control. The existing rule and proposed amendments do not affect land use.

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

Not applicable.

  
\_\_\_\_\_  
Division

  
\_\_\_\_\_  
Intergovernmental Coord.)

  
\_\_\_\_\_  
Date

State of Oregon  
Department of Environmental Quality

Memorandum

Date: February 19, 1993

To: Environmental Quality Commission

From: Brian Fields, Presiding Officer *Brian Fields*

Subject: Presiding Officer's Report for Rulemaking Hearing

Hearing Date and Time: February 16, 1993, beginning at  
1:30 p.m.

Hearing Location: Portland, Oregon

Title of Proposal: Amendments to Pollution Control Tax Credits Rule

The Presiding Officer convened the public hearing at the designated starting time.

Sign in sheets were located at the door to the hearing room and signs were posted advising the public to sign in and to register in the event that they wished to present testimony. At the designated hearing time, no people had signed in or registered to testify. Since there was no stated ending time to the hearing, the Presiding Officer allotted approximately 30 minutes for persons to indicate their desire to participate in the public hearing by signing in or registering to testify. At the end of this time no persons had signed in or registered to testify.

Summary of Number of Persons Participating:

- 0 People gave oral testimony
- 0 People submitted written testimony at the hearing

As there were no comments to be made, the meeting was closed at approximately 2:15 p.m. without any recording.

Attachment C

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Amendments to Pollution Control Tax Credits Rule

List of Persons Making Written Comments

1. Mike Woods  
James River Corporation  
Clatskanie, Oregon
2. John Arand  
Intel Corporation  
Hillsboro, Oregon

Summaries of these comments and the Department's responses to the comments are contained in Attachment E.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Amendments to Pollution Control Tax Credits Rule

Department's Responses to Public Comments

Summarized below are the public comments on the proposed amendments to the pollution control tax credits rule. The comments are presented in chronological order as received during the public comment period.

The written comments of Mr. Mike Woods of James River Corporation are presented first.

**Comment:**

- 1.) Process modifications made for pollution control reasons should be eligible for pollution control tax credits and facilities would be designated as "integral" only if they fit one of the criteria listed in OAR 340-16-030(1)(g)(A)-(D). James River understands the provisions of ORS 340-16-030(1)(g)(B) "...to mean that a facility is integral if it is used to produce a product or service which has value to a customer because of a regulatory requirement which has been imposed on that customer."

**Department's Response:**

Process modifications are eligible for pollution control tax credits provided that these modifications meet the other eligibility criteria as defined in statute and rule. This is true under the existing rule and the proposed amended rule. These process modifications would be considered integral to the operation of the applicant's business only if they met one or more of the criteria (or were installed by a type of business) identified in OAR 340-16-030(1)(g). Process modifications for pollution control which would result in economic benefits to the applicant are, however, subject to the return in investment calculation and percent allocable determinations.

Mr. Woods is correct in his understanding that the provisions of OAR 340-16-030(1)(g)(B) are intended to apply to situations where environmental regulations are imposed on customers that then demand the service or product that is provided by the applicant. In instances where environmental regulations are imposed on the applicant but

not on the applicant's customers, the other factors as identified in OAR 340-16-030(1)(g) will be used to determine whether the facilities are integral to the applicant's business.

**Comment:**

- 2.) James River expressed the concern that the phrase "... is unable to operate or is able to operate at greatly reduced income levels, without the claimed pollution control facility..." could be misinterpreted to include curtailment or closure of the applicant's business due to inability to meet pollution control requirement without the claimed facility. Mr. Woods suggested that this could be clarified in OAR 340-16-030(1)(g) by adding the following sentence:

"Pollution control facilities integral to the operation of the applicant's business" does not include a facility described in OAR 340-16-025(1)(a) unless the facility meets one or more of the criteria identified in Subparagraph (A), (B), (C) or (D) of this subsection.

**Department's Response:**

The Department agrees that language similar to that suggested by Mr. Woods could provide additional clarification of this point. The Department has incorporated language (slightly different than that suggested by Mr. Woods) in the final proposed rule amendments to provide this clarification.

The final written comments were received from Mr. John Arand of Intel Corporation.

**Comment:**

- 1.) Define how any new tradeable pollution rights fit into the definition of OAR 340-16-030(1)(g)(B). Facilities that can most cost effectively reduce pollution may opt to do so and sell those "rights" under new pollution rights trading programs.

**Department's Response:**

Under other provisions of the program, pollution control facilities must meet either the principal or sole purpose criteria. Provided that the facilities meet one of these, and other program criteria, the Department does not believe that the language of OAR 340-16-030(1)(g)(B) would preclude tax credits for facilities as contemplated by Mr. Arand. It should be noted, however, that the sale of tradeable rights would be income to the applicant that would be used in the determination of the percent allocable to pollution control.

Facilities installed to take advantage of pollution rights trading programs could become integral to an applicant's business if the sale of such rights became the applicant's principal business activity and met one or more of the factors identified in the rule. The Department does not consider this to be a likely occurrence and we do not believe that it is necessary to provide additional definitions at this point.

**Comment:**

- 2.) No particular industry or group of industries should be segregated for "special" treatment as contained in OAR 340-16-030(5).

**Department's Response:**

The Department believes that where it has an indication that a particular industry may be impacted by the provisions of the rule, that this should be explicitly stated in the rule. This will simplify interpretation for both applicants and Department staff.

**Comment:**

- 3.) Industry specific pre-tax return on assets as a method of "weeding out" particular companies or industrial groups is not an equitable method for determining percent allocable. Company or industry profitability should not determine percent allocable. Project specifics measured against one standard rate of return should determine percent allocable.

**Department's Response:**

The industry specific rates of return used to determine the percent allocable for applicants with pollution control facilities integral to their business, was not established to "weed out" companies or industries. Rather, this method was selected because it was very simple and easily applied. Further, the amendments prescribe an alternate method in the event that the applicant is dissatisfied with the result obtained using the simple method. In total, the amended rule contains three distinct methods of determining percent allocable versus only one method contained in the existing rule.

ORS 468.190 provides the Commission the following authority:

"(1) In establishing the portion of costs properly allocable...the commission shall consider the following:

(e) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable ...."

and:

"(3) The commission may adopt rules establishing methods to be used to determine the portion of costs properly allocable...."

The Department believes that for applicants with pollution control facilities as an integral component of their business, the prescribed methods of determining percent allocable are relevant to establishing the portion of costs properly allocable.

**Comment:**

4.) Changes to the rule should only become effective for facilities constructed or substantially completed after 2/1/93 and not for applications received after 2/1/93. (Mr. Arand commented that business plans may have been executed based upon the existing program and availability of tax credits and that Intel believes that it is unfair to change the rules "in mid-stream.")

**Department's Response:**

The Department believes that interpretive issues related to determinations of when construction begins or is substantially completed make the use of these as effective dates for the rule amendments subjective. The use of an effective date tied to the date of application establishes a clear and concise effective date. Considering that applications may be submitted two years after substantial completion of a facility, the use of such a date would significantly delay the effective date of the proposed amendments.

Though the tax credit program is generally considered to be an "entitlement" program, an applicant's use of the existence of the tax credit program in business decision making is not a guarantee of program eligibility, the eligibility of specific costs, or the determination of the percent allocable to pollution control.

**Comment:**

5.) Changes in the reference rate of return in OAR 340-16-030(6)(d) are not justified. Assumptions used in the "Discussion of Proposed Rule Amendments" do not apply to Intel's business. They request a delay in implementing this change to determine the effect of this change on their business.

**Department's Response:**

For facilities that aren't integral to an applicant's business and that have no return on investment, the change in the reference rate of return will have no impact. An analysis of tax credit certificates issued in 1992 indicates that only one out of the 224 certificates issued would have had the certified percent allocable impacted by this change in reference rate of return. In this particular application, the facility return on investment



was calculated as 5.25 percent with a percent allocable of 69 percent. The percent allocable using the amended reference rate of return would have been 28 percent.

The "Discussion of Proposed Rule Amendments" that Mr. Arand is referring to was included in the staff report to the Commission for the January 29, 1993 EQC meeting where the rule amendments were adopted on a temporary basis and is included as Attachment H. Mr. Arand did not indicate which assumptions used in this discussion are not applicable to Intel's business.

**Comment:**

Mr. Arand's final comment was a request that additional public hearings be held to review comments received and further justify why the proposed changes are necessary.

**Department's Response:**

Public notice was sent to the Secretary of State on January 14, 1993 and was published in the Secretary's *Bulletin* on February 1, 1993. The rulemaking proposal and "Chance to Comment" package was mailed to all persons on the Department's rulemaking notice mailing list on January 15, 1993. This included a mailing to Intel Corporation. The identical package was also mailed to 18 landfill operators and to members of the Department's Solid Waste Advisory Committee. A total of 120 copies of this package were distributed.

In advance of the January 29, 1993 EQC meeting, Mr. Arand requested and was sent a copy of the package and the staff report presented to the Commission at the January 29th meeting. At this meeting, no parties testified on the proposal to adopt temporary amendments to the rule. A public hearing was held on February 16, 1993 and no people testified or submitted written comments. Only two parties, including Mr. Arand, submitted written comments during the notice period.

The Department believes that there was adequate opportunity for comment during the designated public comment period. Considering the limited number of comments received, the Department does not believe that additional delays are warranted.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Amendments to Pollution Control Tax Credits Rule

Detailed Changes to Original Rulemaking Proposal

**NOTE: THE PORTION OF THE RULE INCLUDED IN THIS ATTACHMENT INDICATES THE CHANGES TO THE PROPOSED RULE SINCE THE PUBLIC COMMENT PERIOD ENDED ON FEBRUARY 18, 1993 (WORDS STRICKEN ARE DELETIONS, WORDS UNDERLINED ARE ADDITIONS). ALL CHANGES WERE MADE IN RESPONSE TO PUBLIC COMMENTS. A FULL TEXT OF THE RULE IS INCLUDED IN ATTACHMENT A.**

340-16-030 DETERMINATION OF PERCENTAGE OF CERTIFIED FACILITY COST ALLOCABLE TO POLLUTION CONTROL

(1) Definitions: ....

(g) "Pollution control facilities integral to the operation of the applicant's business" means that the business is unable to operate or is only able to operate at reduced income levels, without the claimed pollution control facility. Such instances include, but are not limited to, commercial solid waste and hazardous waste landfills, solid and hazardous waste recycling businesses, and environmental service providers. Pollution control facilities integral to the operation of the applicant's business does not include a facility as defined in OAR 340-16-025(1)(a) unless the pollution control facilities meet one or more of the factors included in this definition. Factors that the Department may use to determine whether pollution control facilities are integral to the operation of the business include:

(A) Pollution control facilities represent in excess of 25 percent of the total assets of the business; or

(B) The claimed pollution control facilities were erected, constructed, or installed in response to market demand for such pollution control facilities. This may occur as the result of requirements imposed by the Department, the Federal Environmental Protection Agency or regional air pollution authority, on parties unaffiliated with the applicant; or

- (C) Erection, construction, or installation of the claimed facility and any previously certified pollution control facilities, allows the applicant to generate gross revenues at least 50 percent greater than would have been generated in the absence of the claimed facility and any previously certified pollution control facilities; or
- (D) The applicant's operating expenses related to operation of the claimed facilities and any previously certified pollution control facilities are at least 50 percent of the operating expenses of the applicant's business.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Amendments to Pollution Control Tax Credits Rule

Rule Implementation Plan

**Summary of the Proposed Rule**

The proposed rule amendments will establish a new methodology to be used to evaluate the portion of pollution control facility costs properly allocable to pollution control where it is determined that pollution control facilities are integral to an applicant's business. For such businesses, the existing procedures will be replaced by a mechanism that compares the applicant's industry rate of return to a reference rate of return. Provision are included to allow an applicant to submit detailed financial information necessary for the Department to evaluate the percent allocable using a comprehensive methodology that considers the incremental cash flow realized by the applicant.

The provisions of the amended rule will affect applicants with pollution control facilities as an integral component of their business. In addition, any applicant that generates a return on investment from the claimed pollution control facilities may realize a reduction in program benefits resulting from the change in the reference rate of return.

**Proposed Effective Date of the Rule**

The rule amendments were filed as temporary amendments with the Secretary of State on January 29, 1993 and are in effect for tax credit applications received by the Department on or after February 1, 1993. The permanent rule amendments will become effective on filing with the Secretary of State.

**Proposal for Notification of Affected Persons**

Copies of the final rule amendments as adopted by the Commission will be mailed to all interested parties.

**Proposed Implementing Actions**

There is no required implementation plan for these amendments. The Department will develop revised tax credit application forms and instructions to reflect the amendments to the rule.

**Proposed Training/Assistance Actions**

Training will be scheduled for Department staff involved in processing tax credit applications. Where necessary, Department staff will provide technical assistance to tax credit program applicants to assist in determining whether the provisions of the amended rule pertain to the applicant.

## DISCUSSION OF PROPOSED RULE AMENDMENTS

### **Definition of "Annual Incremental Cash Flow"**

**OAR 340-16-030(1)(a), Page A-8**

A definition of annual incremental cash flow has been added to the rule. The existing rule contains a definition for average annual cash flow, however, this existing definition will not be adequate for the method of analysis that will be employed to determine percent allocable in the amended rule.

### **Definition of "Internal Rate of Return"**

**OAR 340-16-030(1)(f), Page A-8**

A definition of Internal Rate of Return (IRR) has been added to the rule. This is a relatively standard definition of the IRR that has been modified to reflect the other definitions in the rule. It was necessary to provide a definition of the IRR since the amended rule proposes that this technique be used to determine the percent allocable for certain types of businesses.

### **Definition of "Integral" Pollution Control Facilities**

**OAR 340-16-030(1)(g), Page A-9**

The Department has concluded that no one factor can be used to determine whether pollution control facilities are integral to the operation of the applicant's business. In addition to identifying a limited set of industries in the amended rule (commercial landfills, recycling businesses, and environmental service providers), the Department felt that it was reasonable to provide a set of factors that could be used to determine when this is the case. These factors are the percent of the total assets represented by pollution control facilities, whether the pollution control facilities were installed in response to market demand for such facilities, the extent to which the total revenue of the applicant is increased by the presence of pollution control facilities, or the extent to which the operating expenses of the business are related to operation of pollution control facilities. Additional factors could be used, however, the Department believes that the above factors will identify most instances where pollution control facilities are integral to the operation of the business.

### **Calculation of Facility Percent Allocable Where Pollution Control Facilities are Integral to the Operation of an Applicant's Business**

**OAR 340-16-030(5)(a) through (c), Pages A-10 and A-11**

For facilities identified by the above definitions, the amended rule will change the method used to determine the percent allocable to pollution control. The primary method of analysis will compare the average rate of return (profit before taxes as a percent of total assets) for the applicant's industry, as determined from the applicant's primary four digit Standard Industrial Classification (SIC), to the reference rate of return. The industry average rate of

return will be obtained from a standard and widely available reference source. If the industry average rate of return is greater than the reference rate, the percent allocable will be 0 percent. If the industry average rate of return is less than the reference rate, the percent allocable will be determined using the same formula as in the existing rule. The determination made by this method will be relatively simple and will not involve an extensive evaluation. These rule amendments will change the method of analysis only for applicants that are subject to the "integral" pollution control facilities definition.

**Example Using the Proposed Methodology**

The following is an example of the use of the proposed methodology for an applicant whose primary four digit SIC is 4953, "Refuse Systems." The reference source definition for this SIC is as follows:

"Systems primarily engaged in the collection and disposal of refuse by processing or destruction or in the operation of incinerators, waste treatment plants, landfills, or other sites of disposal of such materials. Does not include companies primarily engaged in collecting and transporting refuse without disposal."

The industry rate of return as taken from the reference source is:

	<u>For Statement Dates Ending March 31,</u>					<u>5 Year</u>
	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>Average</u>
% Profit Before Taxes to Total Assets	9.3%	9.6%	7.8%	9.0%	7.4%	8.6%
Number of statements	187	189	206	226	268	

From this analysis, the industry average profit before taxes as a percent of total assets is 8.6 percent. The reference rate of return for facilities completed in 1992 is 6.8 percent. Since the industry median rate of return is higher than the reference rate of return, the percent allocable for facilities in this industrial classification as determined using the proposed methodology is 0 percent.

The reference source uses financial statements and tax returns dated over a period of time rather than as of a specific date. For example, the column indicating statement dates ending March 31, 1992 includes all financial statements and tax returns submitted for this SIC with fiscal years ending between April 1, 1991 and March 31, 1992. The number of statements indicates the sample size of financial statements and/or tax returns used by the reference source to compile the industry data.

**Comprehensive Cash Flow Evaluation Methodology**  
**OAR 340-16-030(5)(d), Pages A-11 and A-12**

Under the existing rule, the return on investment and percent allocable are determined by evaluating the cash flow resulting from the claimed facility. Annual cash flow is defined as the difference between gross annual income from the facility and the gross annual expense of operating the claimed facility. The resulting cash flow is averaged over the first five years of operation of the facility. The claimed facility cost and average annual cash flow are used to determine a return on investment factor, which is used to determine the facility return on investment over the useful life of the facility. Finally, the facility return on investment is compared to the reference rate of return to determine the percent allocable.

The Department has identified several problems with this methodology as it applies to certain types of facilities, including:

- o For many types of facilities, it is difficult to determine annual income and expense. This is a particular problem in industries where pollution control facilities represent a substantial portion of the "productive" assets of the business.
- o A facility may generate substantial cash flow beyond the five year time frame used in the analysis, but before the end of its useful life.

The proposed method of evaluating the cash flow resulting from construction or installation of a facility will involve a comparison of the applicant's cash flow after installation of the facility to a base line cash flow assuming that the facility had not been installed. This will allow the Department to evaluate the incremental cash flow directly attributable to installation of a facility. These incremental cash flows over the useful life of the facility versus the cost of the claimed facility will be used to calculate an internal rate of return. The calculated internal rate of return will be compared to the reference rate of return to determine the percent allocable.

The rule will be amended to include a listing of the information that the applicant will be required to submit in order for the Department to perform this analysis. In addition, the applicant will be required to provide authorization for the Department to contract with an independent certified public accountant, at the applicant's expense, to assist in analyzing the applicant's financial information. OAR 340-16-045(6) currently provides that the Department can increase the application processing fee when an application involves an unusually extensive analysis to determine the portion of the facility cost allocable to pollution control.

**Change in Reference Rate of Return**  
**OAR 340-16-030(6)(d), Page A-12**

Return before taxes on Stockholders' Equity (ROSE) is the measure that is currently used as the reference rate of return in the percent allocable determination. The source for this data is



the Quarterly Report for Manufacturing, Mining and Trade Corporations, published by the U.S. Department of Commerce, Bureau of the Census. The reference rate is calculated by averaging the annual percent return before taxes for the five years prior to the year the pollution control facility was completed.

One of the assumptions implicit by using ROSE is that funds for pollution control investments are derived solely from equity investors. It is doubtful that this is the case. Typically, equity represents less than 50 percent of the capital structure of the firm. It is more likely that the marginal dollar of investment in pollution control is derived from either internally generated cash, debt, or a combination of debt and equity.

Pollution control facilities are assets of the business. When given the choice of investing in pollution control assets or in productive assets, the business will choose to invest in the productive assets unless the pollution control investment generates a return at least equal to the return that the business achieves on productive assets. On the other hand, if a business could generate a higher return on pollution control investments than on productive assets, it would make these investments regardless of environmental regulations. It is unreasonable for a firm to expect that pollution control investments should be judged on a criteria different than other assets and, therefore, the Department believes that a reference rate of return based on profit before taxes as a percent of total assets is appropriate.

Other reference rates could be used. For example, a measure commonly used by companies to evaluate a corporation's performance is return on invested capital. This measure is similar to return on total assets, however, the return is calculated using only the assets that are considered productive assets. While this rate as a reference has some validity, it is not a published rate and there are interpretation issues in defining productive assets. This would require the Department to calculate the reference from other source data.

#### Sources of Reference Rate and Industry Data

The current reference is based on an average of all manufacturing firms and does not consider industry differences. The Quarterly Report contains data for manufacturing firms by two digit SIC and it is conceivable that this level of detail could be used to develop a table of reference rates by manufacturing industry. Few other sources are readily available for this type of data and applying such a table to non-manufacturing industries would be a difficult task.

Robert Morris Associates (RMA) publishes detailed financial data by four digit Standard Industrial Classification in their Annual Statement Studies. Commercial lenders and financial executives rely heavily on this data to evaluate financial performance relative to industry standards. This publication is generally available in major libraries or from the RMA. The data is compiled from actual financial statements and tax returns submitted to RMA by member banks. The 1992 edition includes data generated from over 95,000 statements. Each edition contains five years of historical data.

While the Studies contain financial information for a wide range of industries, there are some SICs that are not covered. In the event that the industry data reference source does not contain information specific to the applicant's industry, the Department and applicant will determine whether an alternate SIC is applicable. In the event that no alternate is applicable, the applicant will be required to submit detailed financial information.

**Effective Date of Rule Amendments**  
**OAR 340-16-030(5), Page A-10**

Rule amendments adopted pursuant to ORS 183.335 become effective on filing with the Secretary of State. The proposed rule amendments stipulate that these rule amendments would apply to applications received on or after February 1, 1993. The Department anticipates that if the proposed amendments are adopted by the Commission at the January 29, 1993 meeting, it will be possible to file the amended rule with the Secretary of State by February 1.

# Environmental Quality Commission

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item D  
March 5, 1993 Meeting

**Title:**

Proposed Amendments to Solid Waste Management Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")


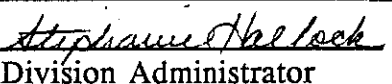
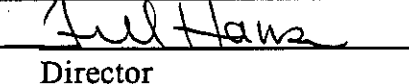
**Summary:**

The purpose of the proposed rules is to adopt federal criteria for municipal solid waste landfills (40 CFR Part 258, or "Subtitle D"). The rule change is necessary in order to implement the federal requirements and gain recognition from the US Environmental Protection Agency as an "approved state." Other areas also addressed:

- \* Allows the Department to require additional protection for groundwater or to enhance monitoring capabilities if the site might pose a significant threat to groundwater;
- \* Prohibits landfills in gravel pits or wellhead protection areas if there is risk of groundwater pollution.
- \* Establishes criteria for solid waste treatment facilities.
- \* Clarifies fees for certain solid waste disposal facilities.
- \* Adds some current operating procedures to rule.

**Department Recommendation:**

Adopt rules.

		
Report Author	Division Administrator	Director

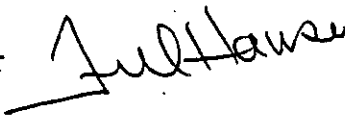
February 16, 1993

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

State of Oregon  
Department of Environmental Quality

Memorandum<sup>†</sup>

Date: February 16, 1993

To: Environmental Quality Commission  
From: Fred Hansen, Director   
Subject: Agenda Item D, March 5, 1993, EQC Meeting

Proposed Amendments to Solid Waste Management Rules to Adopt Federal  
Criteria for Municipal Solid Waste Landfills ("Subtitle D")

**Background**

On December 8, 1992, the Director authorized the Hazardous and Solid Waste Division to proceed to rulemaking hearings on proposed rules which would amend existing rules and adopt new rules regarding the regulation and management of solid waste in Oregon. This proposal would adopt federal criteria for municipal solid waste landfills (40 CFR Part 258), and make certain other changes and clarifications.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on January 1, 1993. On December 18, 1992, notice was mailed to the mailing list of those persons who have asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by or interested in the proposed rulemaking action.

Public Hearings were held on January 19, 20 and 21, 1993, in Portland, Springfield, Bend, Medford and LaGrande with Charles Donaldson, Wayne Thomas and Deanna Mueller-Crispin serving as Presiding Officers. The Presiding Officers' Reports (Attachment C) summarize the oral testimony presented at the hearings.

Written comment was received through 5 p.m., January 27, 1993. A list of written comments received is included as Attachment D. (A copy of the comments is available upon request.)

Department staff have summarized and evaluated the comments received (Attachment E). Based upon that evaluation, modifications to the initial rulemaking proposal are being recommended by the Department. These modifications are summarized in Attachment E.

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<sup>†</sup>A large print copy of this report is available upon request.

The following sections summarize the issue that this proposed rulemaking action is intended to address, the authority to address the issue, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

**Issue this Proposed Rulemaking Action is Intended to Address**

On October 9, 1991 a final rule on solid waste disposal criteria was adopted by the US Environmental Protection Agency (EPA) at 40 CFR 258, in response to 1984 amendments to Subtitle D of the Resource Conservation and Recovery Act (RCRA) (hereafter "Subtitle D"). The rule applies to all municipal solid waste landfills (MSWLFs), and establishes minimum criteria for their location, design, operation, corrective action, financial assurance, and closure and post-closure care. Most of these criteria take effect on October 9, 1993. Owners and operators of MSWLFs are subject to these requirements as a matter of federal law. Subtitle D provides significant flexibility to the "Director of an approved State" in applying the federal criteria, that is, flexibility to a State whose municipal solid waste program EPA has deemed to be "adequate." It is to Oregon's advantage in administering the state solid waste program to receive EPA's approval and the associated flexibility.

Owners and operators of MSWLFs are also subject to state solid waste statutes and regulations. State solid waste regulations need to be revised to bring them into harmony with the federal regulations.

In reviewing its solid waste rules, the Department identified additional requirements and clarifications necessary to protect the environment and public health and for effective administration of the solid waste program.

The rule change is necessary in order to implement the federal requirements and gain recognition from the EPA as an "approved State." (Note: the Attorney General has identified some insufficiencies in state law concerning Oregon's ability to implement all the Subtitle D regulations. These include a requirement for 30 years of active oversight of closed landfills rather than 10 years required by current Oregon statute, specific authority to require corrective action, and strengthened requirements for up-front financial assurance for closure and post-closure care. The Department is proposing

legislation to the 1993 Session which would give us all needed authority. We anticipate a further revision to solid waste rules if this legislation passes.)

### **Relationship to Federal and Adjacent State Rules**

1. **Federal.** The proposed rules would adopt federal Subtitle D criteria by reference. An earlier federal regulation, 40 CFR Part 257 (effective October 15, 1979), set broad criteria for "Solid Waste Disposal Facilities and Practices." The proposed rules specify that when there are discrepancies between Subtitle D and the Department's rules, the more protective standard shall apply (OAR 340-94-010). However, a distinction should be made between a "more protective" standard, and rules applying to areas not regulated by federal criteria. The proposed rules regulate management of all solid waste disposal sites in Oregon, whereas Subtitle D applies only to municipal solid waste landfills. The Department's existing rules regulate other types of solid waste disposal sites, such as composting facilities, incinerators and transfer stations. The proposed rule makes very few changes to existing regulations for such facilities.

**A. State rule more stringent than federal:** The following are the principal areas where proposed new or amended regulations are more stringent than Subtitle D:

- 1) Applicability. Definition of "municipal solid waste landfill" -- broader than the federal definition. Includes any facility receiving domestic, commercial or institutional waste. Federal definition is a facility receiving waste "generated by households."
- 2) Location. New landfills may not be sited in gravel pits or wellhead protection areas where there are findings that there is risk of groundwater pollution.
- 2) Design. The proposed rules allow the Department to require, where site-specific conditions warrant, new municipal solid waste landfills to provide additional protection to protect groundwater or to afford enhanced monitoring beyond the Subtitle D single composite liner requirement. (OAR 340-94-060(6))
- 3) Operations.

- o Special management procedures are required for some solid wastes, which must be included in a Special Waste Management Plan (OAR 340-94-040(11)(b)(J)).
- o The proposed rule specifies that only those solid wastes specifically allowed in the permit may be received. Application must be made to DEQ to accept additional wastes. (OAR 340-94-040(11)(a))
- o A number of items such as large appliances and tires have been prohibited by statute from disposal at solid waste disposal sites. The rule incorporates those prohibitions. (OAR 340-93-040(3))
- o Statute requires that if another state prohibits or restricts the disposal of any waste, the same prohibition or restriction applies to the disposal of that waste in Oregon. The rule incorporates that provision. (OAR 340-93-040(4))

B. State rule less stringent than federal: As noted on page 2 above, there are a number of areas where state law (and corresponding rule) are less stringent than federal regulations. Legislation has been introduced to correct the following areas:

- 1) Current law requires post-closure care for 10 years, unless the Department finds that a longer period is needed. Subtitle D requires a 30-year post-closure period.
- 2) Current law requires that financial assurance for closure and post-closure maintenance be provided "at least five years before the proposed closure" of the site. Subtitle D requires financial assurance of all municipal solid waste landfills by April 9, 1994.

C. State rule equivalent to federal regulations. The few proposed amendments to groundwater monitoring requirements in DEQ's rule are equivalent to Subtitle D, although stated differently.

D. State rule governing areas not covered by federal regulations.

- 1) The proposed rules include a new rule specifying requirements for "solid waste treatment facilities." These are not covered by federal criteria.

2) The proposed rule requires that leachate storage and treatment systems be designed to the same degree of environmental protection as are landfills. Leachate lagoons are not covered by Subtitle D.

[Existing DEQ rules are more specific than Subtitle D in a number of areas, such as information required for permit application, a site feasibility study, operational requirements, some procedures such as split samples for groundwater monitoring, and procedures for updates and modifications to approved closure plans.]

2. Adjacent States. *Washington.* The State of Washington is not adopting Subtitle D by reference, but rather melding it with their state rules. Washington's regulations are more stringent than Subtitle D in several areas, including the following: daily cover requirements; the gas monitoring requirement is extended to off-site structures; the compliance schedule for groundwater monitoring and various monitoring procedures are more restrictive; additional monitoring parameters are required for detection monitoring; corrective action must be conducted to "state superfund" standards; final cover requirement in non-arid regions includes composite liner; and there is no choice of mechanisms in financial assurance requirements, which are effective immediately (rather than April 9, 1994).

*Idaho.* The State of Idaho has had a relatively modest regulatory program for solid waste. Their approach to Subtitle D is to pass legislation establishing the federal criteria as state law for solid waste management. Therefore no Idaho requirement will be more stringent than Subtitle D. Solid waste permitting is done by local Health Districts.

*California.* The State of California has a complex solid waste regulatory program overseen by two state agencies. California is not adopting Subtitle D by reference. California's approach to Subtitle D was to submit to EPA a statement describing their existing solid waste program. California also identified all the areas in which the director of an approved state has flexibility, and requested those flexibilities for their existing program. California's program is more stringent than Subtitle D in various areas, including: most of the groundwater monitoring and protection requirements are considered more protective than the federal standards, although they are stated differently -- an example being that the relative point of compliance (for groundwater contamination) is at the cell boundary, not 150 meters away; their permitting process requires prior approval of a number of items such as plans, environmental assessments and zoning; and



state requirements for financial assurance are in perpetuity, not just for 30 years post-closure care.

*Nevada.* Currently Nevada does not have solid waste "permitting" authority. They can issue "authority to operate" to landfills. There is now a bill in the Nevada legislature which would establish basic authority for permitting and enforcement. Local Health Districts will do the actual permitting and enforcement, with oversight by the State Division of Environmental Protection. Nevada intends to revise its state solid waste rules incorporating language from Subtitle D. The Nevada program will not be more stringent than Subtitle D.

#### **Authority to Address the Issue**

These rules are adopted pursuant to the authority of Oregon Revised Statutes (ORS) 459.045, and relate to ORS Chapters 459 and 459A.

#### **Process for Development of the Rulemaking Proposal (including alternatives considered)**

DEQ reviewed OAR 340 Division 61 for conflicts with Subtitle D requirements. DEQ discussed the proposed solid waste rule changes (including an extensively revised format) with the Oregon Secretary of State's office. That office recommended that Division 61 be retired, and the revised solid waste rules be placed in several Divisions in the 90's. It is the Department's proposal to use five new Divisions (93 through 97) for the revised solid waste rules. The proposed new format follows the structure of the federal regulation.

The Department worked closely with the Solid Waste Advisory Committee (SWAC) to draft these rules, beginning in July, 1992. The committee has a broad base of representation including local government, environmental, collection service, recyclers, land disposal operations, retailer, technical consultants and citizens. At the behest of the SWAC, a special "brainstorm" group was also convened consisting of interested SWAC members and other persons to discuss a Department proposal for a leak detection requirement which was proposed to be more stringent than the federal requirement. In October, 1992 staff also met with representatives of the aggregate gravel industry who supported DEQ's proposed prohibition against establishing landfills in gravel pits located in sensitive hydrogeological environments. On December 10, the SWAC again considered the redrafted rule, and recommended that it be put forward for public hearing

Memo To: Environmental Quality Commission  
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to receive comments on the requirement for secondary leachate collection systems for MSWLFs that is more stringent than the federal requirement. On January 26, 1993 the Department also participated in a roundtable discussion of the proposed rule, sponsored by the Oregon Chapter of the Solid Waste Association of North America.

The Department considered two alternatives to adopting Subtitle D by reference:

- 1) Not adopt the federal rule. MSWLFs are required to comply whether or not the State adopts the Subtitle D regulation. In that case, EPA would likely not approve Oregon's state solid waste program, and Oregon would not receive the implementation flexibility of an "approved State."
- 2) Integrate all federal requirements specifically into the Department's rule, rather than adopt Subtitle D by reference. The Department believes that most MSWLF owners and operators and their consultants will rely strongly on the federal rule, referring to its specific sections for landfill management requirements. Trying to incorporate all the federal provisions into State rule would be more confusing than helpful.

**Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues.**

1. Reorganization of the Rule

The rule format is revised to follow the Subtitle D format. General provisions applying to all solid waste permittees are in Division 93, while regulations specifically applying to MSWLFs are in Division 94. Regulations applying to non-municipal land disposal sites are in Division 95. Special regulations for other types of solid waste disposal sites are in Division 96. Permit fees are in Division 97.

2. Adoption of the Federal Rule by Reference

The proposed rule adopts the federal rule by reference, while in general retaining (but re-ordering) existing state rule language. It spells out procedures as to how the Department may use the flexibility allowed an "approved State." It specifies that where federal and state regulations for municipal solid waste landfills conflict, the more protective standard applies.

3. Open Burning

Subtitle D includes a prohibition against open burning. Sixteen small landfills have been granted permit Variances to open burn until July 31, 1996, while developing solid waste management alternatives. The rule presented for public hearing prohibited open burning "except at a permitted solid waste disposal site which received a Variance from the Commission for such open burning before the effective date of this rule."

The Environmental Protection Agency commented that open burning is illegal under 40 CFR 257.3-7(a) and is prohibited in Subtitle D. EPA would not be able to approve a state solid waste regulation that allows open burning, as in the Department's rule as presented for public hearing. The rule should be changed to prohibit open burning with no exceptions.

The Department agrees with the comment and is changing the rule accordingly. This will not prohibit the Department from phasing in implementation of the open burning prohibition through Enforcement Orders with the individual landfills holding Variances for open burning.

4. Requirement for a Secondary Leachate Collection System

The rule as presented for public hearing would have established a requirement for secondary leachate collection in locations of maximum leak probability in new cells in MSWLFs. The requirement was estimated to add an operational cost of \$.30 to \$.50 per ton of waste received. This is not unreasonable compared to the high cost of remediating contaminated groundwater. Two major areas where the system would offer advantages are:

a) Environmental. The system provides a second chance to collect leachate leakage before it can make its way into groundwater; it is an "early warning" and "diversion" system, giving DEQ the ability to prevent pollution rather than clean it up. The current state of the art "dry tomb" landfill technology has not been proven over time. Monitoring wells do not detect a problem until contamination has entered the groundwater.

b) Landfill operation. Improved information on leak detection would offer the opportunity for better environmental management. The leaking portion of a cell could be identified and that portion of the cell closed to allow use of the remainder.

The proposed requirement for a secondary leachate collection system received by far the greatest number of comments from the public, including county solid waste administrators and operators of private disposal facilities. The concerns included the following:

- a) There is no scientific or technical justification for exceeding Subtitle D requirements for a composite landfill liner. That standard was adopted after much research, and is sufficient to protect the environment.
- b) The requirement would considerably increase the cost of operating a landfill without a proven corresponding increment in groundwater protection. (One correspondent, a county environmental health official, supported the requirement, and believed it to be cost-effective.)
- c) Improved quality control during landfill liner installation would decrease or eliminate the need for the system. Therefore an alternative would be to increase DEQ staff so they could monitor landfill construction to increase confidence in the quality of liners.
- d) This system may be justified in some cases, but the Department should make that determination on a site-by-site basis rather than require it in all new municipal solid waste landfill cells.

The Department agrees that a secondary leachate collection system may not be warranted at all sites. The rule as originally proposed put the burden on the applicant to propose alternative systems, or demonstrate that there were no areas of "maximum leak probability" and thus no need for a system. The attached rule incorporates a change making clear that the requirement is permissive. That is, it allows the Department to require a secondary leachate collection system (or other systems to protect groundwater or enhance monitoring capabilities) if the Department determines the site might pose a significant potential threat to groundwater (OAR 340-94-060(6)). This evaluation would be based on the specific characteristics of the site.

#### 5. Prohibition Against Landfills in Sensitive Hydrogeological Environments

To protect groundwater, the rule would prohibit establishing landfills in certain sensitive hydrogeological environments (including gravel pits and wellhead protection areas). The prohibition would apply if the Department determines that groundwater must be protected because it has existing or potential beneficial uses;

and existing natural protection is insufficient to minimize the risk of polluting groundwater. The Department believes that unfavorable natural conditions preclude use of such sites for landfilling, regardless of the level and type of potential engineered containment systems.

One commenter objected to this prohibition, and suggested it be deleted. The main thrust of the comments was that all landfill siting should be evaluated on a case-by-case basis, and that the Department's criteria were subject to ambiguous interpretation.

The Department believes that in general gravel pit design is incompatible with subsequent use as a landfill. Gravel pits tend to be located near urban areas where aquifers are likely to be used now or in the future for potable water supplies and need a high degree of protection. The Department intends to develop guidance to interpret the criteria.

6. Solid Waste Treatment Facilities

"Solid waste treatment facilities" are defined for the first time. This would include bioremediation facilities for petroleum contaminated soils. A new rule is proposed to regulate solid waste treatment facilities (OAR 340-96-050). These facilities have the potential to generate leachate which could affect groundwater if not properly managed, and require the same engineering effort to approve environmental controls as a landfill. The rule specifies that they are subject to the same permit application processing fees (\$5,000 or \$10,000) as landfills.

7. Fees

Some additional provisions concern solid waste fees:

- a) Clarification that new transfer stations and material recovery facilities shall pay an annual permit fee for the first year's operation at the time application for the new facility is made to the Department.
- b) Persons treating petroleum contaminated soils would be exempted from the \$500 solid waste Letter Authorization processing fee if the treatment is authorized under ORS 465 or 466, and the applicant has entered into a separate cost-recovery agreement with the Department. This will allow DEQ to charge the applicant its exact cost of overseeing the cleanup, which is expected to range from \$200 to \$400 per site.

8. Addition of Current Operating Procedures

Some current DEQ operating procedures are added to the rule to make these procedures more predictable for the regulated community. An example is clarification of when a Special Waste Management Plan is required. References were added that applicants were also required to comply with "guidance provided by the Department." Since the solid waste rules are performance-based with few details, the Department has developed permit application and other guidance documents which are designed to solicit adequate technical information to facilitate Department review of applications.

Several persons objected to rule language which would require permit applicants and permittees to comply with "guidance provided by the Department." They commented that this would give such unspecified policies and standards the effect of rule without having gone through the required public notice and review process. Department guidance should be subordinate to rule.

The Department agrees, and has removed references to required compliance with "guidance."

9. Miscellaneous Changes

A number of additional changes are proposed, such as new or revised definitions and other clarifications to procedures to reflect current Department practice and guidance. Other changes incorporate recent legislation (prohibition of disposal of used oil) or make the rule better reflect current practices, such as deletion of maximum capacity requirements for garbage containers. Other housekeeping changes are proposed such as updating statutory references.

Attachment E describes other revisions made to the proposed rules as a result of public comment.

**Summary of How the Proposed Rule Will Work and How it Will be Implemented**

The proposed rule would incorporate, by reference, the federal Subtitle D criteria for MSWLFs. Owners and operators of MSWLFs will have to comply with the federal criteria beginning October 9, 1993. Compliance with the federal location, operational

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and design criteria is required on that date. Certain other federal requirements are phased in, such as the requirements for financial assurance (effective April 9, 1994) and groundwater monitoring (with all MSWLFs in compliance no later than October 9, 1996).

Opening burning would be prohibited on the effective date of the rule. The Department intends to develop enforceable Orders with the several small MSWLFs which have permit variances allowing open burning. The Orders would allow a phased schedule to develop alternatives for solid waste management and phase out open burning.

EPA approval of the State solid waste program will allow the DEQ Director considerable flexibility in applying the federal criteria to Oregon MSWLFs. DEQ is completing a State Implementation Plan with implementation strategies for the Subtitle D criteria appropriate to the differing conditions east and west of the Cascades. DEQ staff will continue to work one-on-one with the regulated community in developing implementation plans for individual MSWLFs.

#### **Recommendation for Commission Action**

It is recommended that the Commission adopt the rule amendments regarding solid waste management incorporating Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D") as presented in Attachment A of the Department Staff Report.

#### **Attachments**

- A. Rule (Amendments) Proposed for Adoption
- B. Supporting Procedural Documentation:
  - 1. Legal Notice of Hearing
  - 2. Public Notice of Hearing (Chance to Comment)
  - 3. Rulemaking Statements (Statement of Need)
  - 4. Fiscal and Economic Impact Statement
  - 5. Land Use Evaluation Statement
- C. Presiding Officers' Reports on Public Hearing
- D. List of Written Comments Received
- E. Department's Evaluation of Public Comment and Department's Response and Proposed Changes
- F. Advisory Committee Membership
- G. Rule Implementation Plan

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**Reference Documents (available upon request)**

Written Comments Received (listed in Attachment D)  
Rulemaking Proposal Package (with Rules as Proposed for Public Hearing)  
40 CFR Part 258

Approved:

Section: \_\_\_\_\_

Division: \_\_\_\_\_

Report Prepared By: Deanna Mueller-Crispin

Phone: 229-5808

Date Prepared: February 16, 1993

February 16, 1993  
finaleqc.sd



ATTACHMENT A

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY  
PROPOSED REVISIONS TO ADMINISTRATIVE RULES  
SOLID WASTE MANAGEMENT  
2/1/93

- Deletions struck out and in [brackets].
- Additions underlined.
- Where large sections of rules or entire rules have been moved, they are not underlined. Old numbering is noted in brackets at beginning of rule or section.

DIVISION 93  
SOLID WASTE: GENERAL PROVISIONS

PURPOSE AND APPLICABILITY

340-93-005 [Renumbered from 340-61-005]

The purpose of OAR 340 Divisions 93 through 97 [~~these rules~~] is to prescribe requirements, limitations, and procedures for storage, collection, transportation, treatment and disposal of solid waste. All persons storing, collecting, transporting, treating and disposing of solid waste in this state are subject to the provisions of OAR 340 Division 93 ("General Provisions"), in addition to any other rules in OAR 340 Divisions 94, 95, 96 and 97 governing the appropriate specific type of solid waste disposal site.

POLICY

340-93-010 [Renumbered from 340-61-015]

Whereas inadequate solid waste collections, storage, transportation, treatment, recycling and disposal practices cause nuisance conditions, potential hazards to public health and safety and pollution of the air, water and land environment, it is hereby declared to be the policy of the Department of Environmental Quality to require effective and efficient solid waste collection and disposal service to both rural and urban areas and to promote and support comprehensive county or regional solid waste management planning, utilizing progressive solid waste management techniques, emphasizing recovery and reuse of solid wastes and insuring highest and best practicable protection of the public health and welfare and air, water and land resources. In keeping with the Oregon policy to retain primary responsibility for management of adequate solid waste programs with local government units (ORS 459.015) and the Environmental Quality Commission's perception of Legislative intent under Chapter 773, Oregon Laws 1979, the Commission will look for, and expect, the maximum participation of local government in the planning, siting, development and operation of needed landfills. It is expected that local government will have carried out a good faith effort in landfill siting, including but not limited to public participation and Department assistance, before requesting the Department to site the landfill. Local government will be expected to assume or provide for responsibility in the ownership and operation of any Department/Commission sited landfill under anything but an extraordinary circumstance.

STATE OF OREGON SOLID WASTE PLAN

340-93-020 [Renumbered from 340-61-017]

[This solid waste plan is adopted as the State Plan pursuant to the Federal Resource Conservation and Recovery Act.] These rules constitute the State Solid Waste Plan for purposes of Section 4001 of the Federal Resource Conservation and Recovery Act of 1976 as amended by PL 96-482, until such time as an Integrated State Solid Waste Management Plan is developed pursuant to ORS 459A.020.

[Hist.: DEQ 5-1981, f. & ef. 2-9-81]

DEFINITIONS

340-93-030 [Renumbered from 340-61-010]

As used in ~~[these rules]~~ OAR 340 Divisions 93, 94, 95, 96 and 97 unless otherwise specified:

- (1) "Access road" means any road owned or controlled by the disposal site owner which terminates at the disposal site and which provides access for users between the disposal site entrance and a public road.
- (2) "Agricultural waste" means residues from agricultural products generated by the raising or harvesting of such products on farms or ranches.
- (3) "Agronomic application rate" means a rate of sludge or other solid waste land application which improves tilth comparable to other soil amendments commonly used in agricultural practices, matches or does not exceed nutrient requirements for projected crop patterns, or changes soil pH to desired levels for projected crop patterns. In no case shall the waters of the state be adversely impacted.
- (4) [~~2~~] "Airport" means any area recognized by the Oregon Department of Transportation, Aeronautics Division, for the landing and taking-off of aircraft which is normally open to the public for such use without prior permission.
- (5) [~~3~~] "Aquifer" means a geologic formation, group of formations or portion of a formation capable of yielding usable quantities of ground water to wells or springs.
- (6) [~~4~~] "Assets" means all existing and probable future economic benefits obtained or controlled by a particular entity.
- (7) [~~5~~] "Baling" means a volume reduction technique whereby solid waste is compressed into bales for final disposal.
- (8) [~~6~~] "Base flood" means a flood that has a one percent or greater chance of recurring in any year or a flood of a magnitude equaled or exceeded once in 100 years on the average of a significantly long period.
- (9) [~~7~~] "Biological waste" means blood and blood products, excretions, exudates,

secretions, suctionings and other body fluids that cannot be directly discarded into a municipal sewer system, and waste materials saturated with blood or body fluids, but does not include diapers soiled with urine or feces.

- (10) "Clean fill" means material consisting of soil, rock, concrete, brick, building block, tile or asphalt paving, which do not contain contaminants which could adversely impact the waters of the State or public health. This term does not include putrescible wastes, construction and demolition wastes and industrial solid wastes.
- (11) "Cleanup materials contaminated by hazardous substances" means contaminated materials from the cleanup of releases of hazardous substances into the environment, and which are not hazardous wastes as defined by ORS 466.005. [Renumbered from (55)]
- (12) [(8)] "Closure permit" means a document issued by the Department bearing the signature of the Director or his authorized representative which by its conditions authorizes the permittee to complete active operations and requires the permittee to properly close a land disposal site and maintain the site after closure for a period of time specified by the Department.
- (13) "Commercial solid waste" means solid waste generated by stores, offices, including manufacturing and industry offices, restaurants, warehouses, schools, colleges, universities, hospitals, and other nonmanufacturing entities, but does not include solid waste from manufacturing activities. Solid waste from business, manufacturing or processing activities in residential dwellings is also not included.
- (14) [(9)] "Commission" means the Environmental Quality Commission.
- (15) [(11)] "Composting" means the process of controlled biological decomposition of organic solid waste. It does not include composting for the purposes of soil remediation.
- (16) "Composting facility" means a facility which receives mixed solid waste or source separated materials and uses a controlled biological decomposition process to produce a useable product.
- (17) "Construction and demolition waste" means solid waste resulting from the construction, repair, or demolition of buildings, roads and other structures, and debris from the clearing of land, but does not include clean fill when separated from other construction and demolition wastes and used as fill materials or otherwise land disposed. Such waste typically consists of materials including concrete, bricks, bituminous concrete, asphalt paving, untreated or chemically treated wood, glass, masonry, roofing, siding, plaster; and soils, rock, stumps, boulders, brush and other similar material. This term does not include industrial solid waste and municipal solid waste generated in residential or commercial activities associated with construction and demolition activities.
- (18) "Construction and demolition landfill" means a landfill which receives only construction and demolition waste.
- (19) [(10)] "Cover material" means soil or other suitable material approved by the Department that is placed over the top and side slopes of solid wastes in a landfill.
- (20) [(12)] "Cultures and stocks" means etiologic agents and associated biologicals, including specimen cultures and dishes and devices used to transfer, inoculate and mix cultures, wastes from production of biologicals, and serums and discarded live and attenuated vaccines. "Culture" does not include throat and urine cultures.

- (21) [(13)] "Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.
- (22) [(14)] "Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.
- (23) [(15)] "Department" means the Department of Environmental Quality.
- (24) "Designated well head protection area" means the surface and subsurface area surrounding a public water supply well or wellfield, through which contaminants are likely to move toward and reach the well(s), and within which waste management and disposal, and other activities, are regulated to protect the quality of the water produced by the well(s). A public water supply well is any well serving 14 or more people for at least six months each year.
- (25) [(16)] "Digested sewage sludge" means the concentrated sewage sludge that has decomposed under controlled conditions of pH, temperature and mixing in a digester tank.
- (26) [(17)] "Director" means the Director of the Department of Environmental Quality.
- (27) [(18)] "Disposal site" means land and facilities used for the disposal, handling, treatment or transfer of or resource recovery from solid wastes, including but not limited to dumps, landfills, sludge lagoons, sludge treatment facilities, disposal sites for septic tank pumping or cesspool cleaning service, land application units (except as exempted by subsection (74)(b) of this rule), transfer stations, resource recovery facilities, incinerators for solid waste delivered by the public or by a solid waste collection service, composting plants and land and facilities previously used for solid waste disposal at a land disposal site; but the term does not include a facility subject to the permit requirements of ORS [468.740] 468B.050; a landfill site which is used by the owner or person in control of the premises to dispose of soil, rock, concrete or other similar non-decomposable material, unless the site is used by the public either directly or through a solid waste collection service; or a site [licensed pursuant to ORS 481.345] operated by a wrecker issued a certificate under ORS 822.110.
- (28) "Domestic solid waste" includes, but is not limited to, residential (including single and multiple residences), commercial and institutional wastes, as defined in ORS 459A.100; but the term does not include:
- (a) Sewage sludge or septic tank and cesspool pumpings;
  - (b) Building demolition or construction wastes and land clearing debris, if delivered to a disposal site that is limited to those purposes and does not receive other domestic or industrial solid wastes;
  - (c) Industrial waste going to an industrial waste facility; or
  - (d) Waste received at an ash monofill from an energy recovery facility.
- (29) [(19)] "Endangered or threatened species" means any species listed as such pursuant to Section 4 of the Federal Endangered Species Act and any other species so listed by the Oregon Department of Fish and Wildlife.

- (30) [Renumbered from 340-61-010(42)(a)] "Energy recovery" means recovery in which all or a part of the solid waste materials are processed to utilize the heat content, or other forms of energy, of or from the material.
- (31) [(20)] "Financial assurance" means a plan for setting aside financial resources or otherwise assuring that adequate funds are available to properly close and to maintain and monitor a land disposal site after the site is closed according to the requirements of a permit issued by the Department.
- (32) [(21)] "Floodplain" means the lowland and relatively flat areas adjoining inland and coastal waters which are inundated by the base flood.
- (33) "Gravel pit" means an excavation in an alluvial area from which sand or gravel has been or is being mined.
- (34) [(22)] "Groundwater" means water that occurs beneath the land surface in the zone(s) of saturation.
- (35) "Hazardous substance" means any substance defined as a hazardous substance pursuant to section 101(14) of the federal Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 U.S.C. 9601 et seq.; oil, as defined in ORS [466.540;] 465.200; and any substance designated by the Commission under ORS [466.553.] 465.499. [Renumbered from (56)]
- (36) [(23)] "Hazardous waste" means discarded, useless or unwanted materials or residues and other wastes which are defined as hazardous waste pursuant to ORS 466.005.
- (37) [(24)] "Heat-treated" means a process of drying or treating sewage sludge where there is an exposure of all portions of the sludge to high temperatures for a sufficient time to kill all pathogenic organisms.
- (38) [(25)] "Incinerator" means any device used for the reduction of combustible solid wastes by burning under conditions of controlled air flow and temperature.
- (39) "Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under ORS Chapters 465 and 466 or under Subtitle C of the federal Resource Conservation and Recovery Act. Such waste may include, but is not limited to, waste resulting from the following processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay and concrete products; textile manufacturing; transportation equipment; water treatment; and timber products manufacturing. This term does not include construction/demolition waste; waste from office buildings or lunch rooms in a manufacturing or industrial facility if not mixed with wastes from the manufacturing or industrial processes; or packaging material for products delivered to the generator.
- (40) "Industrial waste landfill" means a landfill which receives only a specific type or combination of industrial waste.
- (41) "Inert" means containing only constituents that are biologically and chemically inactive and that, when exposed to biodegradation and/or leaching, will not adversely impact the waters of the state or public health.

- (42) ~~[(26)]~~ "Infectious waste" means biological waste, cultures and stocks, pathological waste, and sharps; as defined in ~~[Oregon Revised Statutes, Chapter 763, Oregon Laws 1989.]~~ ORS 459.386.
- (43) "Land application unit" means a disposal site where sludges or other solid wastes are applied onto or incorporated into the soil surface for agricultural purposes or for treatment and disposal.
- (44) ~~[(27)]~~ "Land disposal site" means a disposal site in which the method of disposing of solid waste is by landfill, dump, waste pile, pit, pond, [ø] lagoon or land application.
- (45) ~~[(28)]~~ "Landfill" means a facility for the disposal of solid waste involving the placement of solid waste on or beneath the land surface.
- (46) ~~[(29)]~~ "Leachate" means liquid that has come into direct contact with solid waste and contains dissolved, miscible and/or suspended contaminants as a result of such contact.
- (47) ~~[(30)]~~ "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.
- (48) ~~[(31)]~~ "Local government unit" means a city, county, metropolitan service district formed under ORS Chapter 268, sanitary district or sanitary authority formed under ORS Chapter 450, county service district formed under ORS Chapter 451, regional air quality control authority formed under ORS ~~[468.500 to 468.530 and ORS 468.540 to 468.575]~~ ORS 468A.100 to 468A.130 and 468A.140 to 468A.175 or any other local government unit responsible for solid waste management.
- (49) "Low-risk disposal site" means a disposal site which, based upon its size, site location, and waste characteristics, the Department determines to be unlikely to adversely impact the waters of the State or public health.
- (50) "Material recovery" means any process of obtaining from solid waste, by presegregation or otherwise, materials which still have useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled for the same or other purpose. [Renumbered from OAR 340-61-010(42)(b)]
- (51) "Material recovery facility" means a solid waste management facility which separates materials for the purposes of recycling from an incoming mixed solid waste stream by using manual and/or mechanical methods, or a facility at which previously separated recyclables are collected. "Material recovery facility" includes composting facilities.
- (52) "Medical waste" means solid waste that is generated as a result of patient diagnosis, treatment, or immunization of human beings or animals.
- (53) "Monofill" means a landfill or landfill cell into which only one type of waste may be placed.
- (54) "Municipal solid waste landfill" means a discrete area of land or an excavation that receives domestic solid waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under §257.2 of 40 CFR Part 257. It may also receive other types of wastes such as nonhazardous sludge, hazardous waste from conditionally exempt small quantify generators, construction and demolition waste and industrial solid waste.

- (55) [(32)] "Net working capital" means current assets minus current liabilities.
- (56) [(33)] "Net worth" means total assets minus total liabilities and is equivalent to owners' equity.
- [(34)] "~~Open dump~~" means a facility for the disposal of solid waste which does not comply with these rules.]
- (57) [(35)] "Pathological waste" means biopsy materials and all human tissues, anatomical parts that emanate from surgery, obstetrical procedures, autopsy and laboratory procedures and animal carcasses exposed to pathogens in research and the bedding and other waste from such animals. "Pathological waste" does not include teeth or formaldehyde or other preservative agents.
- (58) [(36)] "Permit" means a document issued by the Department, bearing the signature of the Director or his authorized representative which by its conditions may authorize the permittee to construct, install, modify, ~~or~~ operate or close a disposal site in accordance with specified limitations.
- (59) [(37)] "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.
- (60) [(39)] "Processing of wastes" means any technology designed to change the physical form or chemical content of solid waste including, but not limited to, baling, composting, classifying, hydropulping, incinerating and shredding.
- (61) [(38)] "Public waters" or "Waters of the State" include 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.
- (62) [(40)] "Putrescible waste" means solid waste containing organic material that can be rapidly decomposed by microorganisms, and which may give rise to foul smelling, offensive products during such decomposition or which is capable of attracting or providing food for birds and potential disease vectors such as rodents and flies.
- (63) "Recycling" means any process by which solid waste materials are transformed into new products in such a manner that the original products may lose their identity. [Renumbered from (42)(c)]
- (64) [(41)] "Regional disposal site" means:
- (a) A disposal site selected pursuant to Chapter 679, Oregon Laws 1985; or
  - (b) A disposal site that receives, or a proposed disposal site that is designed to receive more than 75,000 tons of solid waste a year from commercial haulers from outside the immediate service area in which the disposal site is located. As used in this paragraph, "immediate service area" means the county boundary of all counties except a county that is within the boundary of the metropolitan service district. For a county within the metropolitan service district, "immediate service

area" means that metropolitan service district boundary.

- (65) "Release" has the meaning given in ORS 466.540(14). [Renumbered from (57)]
- (66) [(42)] "Resource recovery" means the process of obtaining useful material or energy from solid waste and includes[+] energy recovery, material recovery and recycling.
- (67) "Reuse" means the return of a commodity into the economic stream for use in the same kind of application as before without change in its identity. [Renumbered from (42)(d)]
- (68) [(43)] "Salvage" means the controlled removal of reusable, recyclable or otherwise recoverable materials from solid wastes at a solid waste disposal site.
- ~~[(44)] "Sanitary landfill" means a facility for the disposal of solid waste which complies with these rules.]~~
- (69) "Sensitive aquifer" means any unconfined or semiconfined aquifer which is hydraulically connected to a water table aquifer, and where flow could occur between the aquifers due to either natural gradients or induced gradients resulting from pumpage.
- (70) "Septage" means the pumpings from septic tanks, cesspools, holding tanks, chemical toilets and other sewage sludges not derived at sewage treatment plants.
- (71) [(46)] "Sharps" means needles, IV tubing with needles attached, scalpel blades, lancets, glass tubes that could be broken during handling and syringes that have been removed from their original sterile containers.
- (72) [(45)] "Sludge" means any solid or semisolid waste and associated supernatant generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility or any other such waste having similar characteristics and effects.
- (73) "Sole source aquifer" means the only available aquifer, in any given geographic area, containing potable groundwater with sufficient yields to supply domestic or municipal water wells.
- (74) [(47)] "Solid waste" means all putrescible and non-putrescible wastes, including but not limited to garbage, rubbish, refuse, ashes, waste paper and cardboard; sewage sludge, septic tank and cesspool pumpings or other sludge; commercial, industrial, demolition and construction wastes; discarded or abandoned vehicles or parts thereof; discarded home and industrial appliances; manure; vegetable or animal solid and semi-solid wastes, dead animals, infectious waste and other wastes; but the term does not include:
- (a) Hazardous wastes as defined in ORS [459-410] 466.005;
  - (b) Materials used for fertilizer, soil conditioning, humus restoration, or for other productive purposes or which are salvageable for these purposes and [as such materials] are used on land in agricultural operations and the growing or harvesting of crops and the raising of fowls or animals, provided the materials are used at or below agronomic application rates.
- (75) [(48)] "Solid waste boundary" means the outermost perimeter (on the horizontal plane) of the solid waste at a landfill as it would exist at completion of the disposal activity.



- (76) "Source separate" means that the person who last uses recyclable materials separates the recyclable material from solid waste.
- (77) [(49)] "Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.
- (78) [(50)] "Transfer station" means a fixed or mobile facility, normally used as an adjunct of a solid waste collection and disposal system or material or energy [resource] recovery system, between a collection route and disposal site, including but not limited to a large hopper, railroad gondola, shipping container or barge.
- (79) "Treatment" or "treatment facility" means any method, technique, or process designed to change the physical, chemical, or biological character or composition of any solid waste. It includes but is not limited to soil remediation facilities. It does not include "composting" as defined in section (15) of this rule, "material recovery" as defined in section (50) of this rule, nor does it apply to a "material recovery facility" as defined in section (51) of this rule.
- (80) [(51)] "Underground drinking water source" means an aquifer supplying or likely to supply drinking water for human consumption.
- (81) [(52)] "Vector" means any insect, rodent or other animal capable of transmitting, directly or indirectly, infectious diseases to humans or from one person or animal to another.
- (82) [(53)] "Waste" means useless or discarded materials.
- (83) "Water table aquifer" means an unconfined aquifer in which the water table forms the upper boundary of the aquifer. The water table is typically below the upper boundary of the geologic strata containing the water, the pressure head in the aquifer is zero and the elevation head equals the total head.
- (84) "Woodwaste" means chemically untreated wood pieces or particles generated from processes used in the timber products industry. Such materials include but are not limited to sawdust, chips, shavings, bark, hog-fuel and log sort yard waste, but do not include wood pieces or particles containing chemical additives, glue resin or chemical preservatives.
- (85) "Woodwaste landfill" means a landfill which receives primarily woodwaste.
- (86) [(54)] "Zone of saturation" means a three (3) dimensional section of the soil or rock in which all open spaces are filled with groundwater. The thickness and extent of a saturated zone may vary seasonally or periodically in response to changes in the rate or amount of groundwater recharge, discharge or withdrawal. NOTE: Definition updated to be consistent with current Hazardous Waste statute.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS 459.045(1) & (3), 459.235(2), 459.420 & 468.065

Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81; DEQ 2-1984, f. & ef. 1-16-84; DEQ 18-1988, f. & cert. ef. 7-13-88 (and corrected 2-3-89); DEQ 14-1990, f. & cert. ef. 3-22-90; DEQ 24-1990, f. & cert. ef. 7-6-90

PROHIBITED DISPOSAL [New Rule]

340-93-040

- (1) No person shall dispose of or authorize the disposal of solid waste except at a solid waste disposal site permitted by the Department to receive that waste, or at a class of disposal site specifically exempted by OAR 340-93-050(2) from the requirement to obtain a solid waste permit.
- (2) [Renumbered from 340-61-060(1)(a) and (b)] Wastes prohibited from disposal at solid waste ~~[landfills;]~~ disposal sites:
  - (a) Hazardous Wastes. Wastes defined as hazardous wastes must be managed in accordance with ORS 466.005 et seq. and applicable regulations;
  - (b) Hazardous Wastes from Other States. Wastes which are hazardous under the law of the state of origin shall not be managed at a solid waste disposal site when transported to Oregon. Such wastes may be managed at a hazardous waste facility in Oregon if the facility is authorized to accept the wastes pursuant to ORS 466.005 et seq. and applicable regulations;
  - ~~(c) Lead-acid batteries. No lead-acid batteries may be mixed in municipal solid waste or disposed of at a solid waste landfill;~~

[Subsection on lead-acid batteries deleted, and replaced with (3)(e) below]
- (3) No person shall dispose of and no disposal site shall knowingly accept for disposal at a solid waste disposal site:
  - (a) Used oil as defined in ORS 468.850(5), including liquid used oil and used oil purposely mixed with other materials for the purpose of disposal, but not including cleanup materials from incidental or accidental spills where the used oil spilled cannot feasibly be recovered as liquid oil;
  - (b) Discarded or abandoned vehicles;
  - (c) Discarded large metal-jacketed residential, commercial or industrial appliances such as refrigerators, washers, stoves and water heaters;
  - (d) Whole tires, except as provided in OAR 340-64-052. Tires processed to meet the criteria in OAR 340-64-052 may be landfilled. For purposes of this subsection, "tire" shall have the meaning given in OAR 340-64-010(26).
  - (e) Lead-acid batteries.
- (4) Notwithstanding any other provision of law relating to solid waste disposal, if the state of origin prohibits or restricts the disposal of any kind of solid waste within the state of origin, such prohibition or restriction also shall apply to the disposal of the out-of-state solid waste in Oregon.

## PERMIT REQUIRED

### 340-93-050 [Renumbered from 340-61-020]

- (1) Except as provided by section (2) of this rule, no person shall establish, operate, maintain or substantially alter, expand, ~~or~~ improve or close a disposal site, and no person shall change the method or type of disposal at a disposal site, until the person owning or controlling the disposal site obtains a permit therefor from the Department.
- (2) Persons owning or controlling the following classes of disposal sites are specifically exempted from the above requirements to obtain a permit under these rules, but shall comply with all other provisions of these rules and other applicable laws, rules, and regulations regarding solid waste disposal:
  - (a) Disposal sites, facilities or disposal operations operated pursuant to a permit issued under ORS ~~[468.749]~~ 468B.050;
  - (b) A ~~[landfill]~~ land disposal site used exclusively for the disposal of ~~[soil, rock, concrete, brick, building block, tile or asphalt paving]~~ clean fill, unless the materials have been contaminated such that the Department determines that their nature, amount or location may create an adverse impact on groundwater, surface water or public health or safety. NOTE: Such a landfill may require a permit from the Oregon Division of State Lands. A person wishing to obtain a permit exemption for an inert waste not specifically mentioned in this subsection may submit a request to the Department with such information as the Department may require to evaluate the request for exemption, pursuant to OAR 340-93-080.
  - (c) Composting operations used only by the owner or person in control of a dwelling unit to dispose of food scraps, garden wastes, weeds, lawn cuttings, leaves, and prunings generated at that residence and operated in a manner approved by the Department;
  - (d) Facilities which receive only source separated~~[, recyclable]~~ materials for purposes of material recovery or for composting, ~~[excluding putrescible materials,]~~ except when the Department determines that the nature, amount or location of the materials is such that they constitute a potential threat of adverse impact on the waters of the state or public health.
  - (e) Solid waste collection vehicles, operated by commercial solid waste collection companies or government agencies, which serve as mobile and roving transfer stations that are not available for direct use by the general public and do not stay in one location for a period to exceed ~~[24]~~ 72 hours.
- (3) The Department may, in accordance with a specific permit containing a compliance schedule, grant reasonable time for solid waste disposal sites or facilities to comply with these rules.
- (4) If it is determined by the Department that a proposed or existing disposal site is not likely to create a public nuisance, health hazard, air or water pollution or other environmental problem, the Department may waive any or all requirements of ~~[OAR 340-61-025, 340-61-030, 340-61-035 and OAR 340-61-036 and 340-61-040(1)]~~ OAR 340-93-070, 340-93-130, 340-93-140, 340-93-150, 340-93-060(2) and 340-95-030(2) and issue a ~~[special]~~ letter authorization in accordance with ~~[OAR 340-61-027,]~~ OAR 340-93-060.

- (5) Each person who is required by sections (1) and (4) ~~[(7)]~~ of this rule to obtain a permit shall:
- (a) Make prompt application to the Department therefor;
  - (b) Fulfill each and every term and condition of any permit issued by the Department to such person;
  - (c) Comply with these rules;
  - (d) Comply with the Department's requirements for recording, reporting, monitoring, entry, inspection, and sampling, and make no false statements, representations, or certifications in any form, notice, report, or document required thereby.
- (6) Failure to conduct solid waste disposal according to the conditions, limitations, or terms of a permit, letter authorization or these rules, or failure to obtain a permit or letter authorization, is a violation of these rules and shall be cause for the assessment of civil penalties for each violation as provided in OAR Chapter 340, Division 12 or for any other enforcement action provided by law. Each and every day that a violation occurs is considered a separate violation and may be the subject of separate penalties.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81; DEQ 2-1984, f. & ef. 1-16-84; DEQ 14-1984, f. & ef. 8-8-84

## LETTER AUTHORIZATIONS

### 340-93-060 [Renumbered from 340-61-027]

Pursuant to OAR 340-93-050(4), ~~[T]~~the Department may authorize the ~~[temporary]~~ short-term operation of a disposal site by issuing a permit called "letter ~~[of]~~ authorization" subject to the following:

- (1) A letter authorization may be issued only on the basis of a complete written application which has been approved by the Department. Applications for letter authorizations shall be complete only if they contain the following items:
  - (a) The quantity and types of material to be disposed;
  - (b) A discussion of the need and justification for the proposed project;
  - (c) The expected amount of time which will be required to complete the project;
  - (d) The methods proposed to be used to insure safe and proper disposal of solid waste;
  - (e) The location of the proposed disposal site;
  - (f) A statement of approval from the property owner or person in control of the property, if other than the applicant;
  - (g) Written verification from the local planning department that the proposal is compatible

with the acknowledged local comprehensive plan and zoning requirements or the Land Conservation and Development Commission's Statewide Planning Goals;

- (h) Any other relevant information which the Department may require.
- (2) Upon receipt of a complete written application the Department may approve the application if it is satisfied that:
  - (a) The applicant has demonstrated sufficient need and justification for the proposal;
  - (b) The proposed project is not likely to cause a public nuisance, health hazard, air or water pollution or other environmental problem.
- (3) The Department may revoke or suspend a letter authorization on any of the following grounds:
  - (a) A material misrepresentation or false statement in the application;
  - (b) Any relevant violation of any statute, rule, order, permit, ordinance, judgment or decree.
- (4) The Department may issue letter authorizations for periods not to exceed six (6) months. Any requests to conduct additional disposal shall require a new application and a new authorization.

Stat. Auth.: ORS Ch. 459  
Hist.: DEQ 26-1981, f. & ef. 9-8-81

#### APPLICATIONS FOR PERMITS

##### 340-93-070 [Renumbered from 340-61-025]

- (1) Applications for permits shall be processed in accordance with the Procedures for Issuance, Denial, Modification and Revocation of Permits as set forth in OAR Chapter 340, Division 14, except as otherwise provided in OAR Chapter 340, ~~[Division 61.]~~ Divisions 93, 94, 95, 96 and 97.
- (2) Applications for a permit shall be accepted by the Department only when complete, as detailed in section (3) of this rule.
- (3) Applications for permits shall be complete only if they:
  - (a) Are submitted in ~~[duplicate]~~ triplicate on forms provided by the Department, are accompanied by all required exhibits[-], using paper with recycled content with copy printed on both sides of the paper whenever possible, follow the organizational format and include the level of informational detail required by the Department, [and the forms are completed in full] and are signed by the property owner or person in control of the premises;

- (b) Include written recommendations of the local government unit or units having jurisdiction to establish a new disposal site or to substantially alter, expand, or improve a disposal site or to make a change in the method or type of disposal. Such recommendations shall include, but not be limited to, a statement of compatibility with the acknowledged local comprehensive plan and zoning requirements or the Land Conservation and Development Commission's Statewide Planning Goals;
  - (c) Identify any other known or anticipated permits from the Department or other governmental agencies. If previously applied for, include a copy of such permit application and if granted, a copy of such permit.
  - (d) Include payment of application fees as required by OAR 340-97-110 and 340-97-120;
  - (e) [(d)] Include a feasibility study report prepared in accordance with [OAR 340-61-030,] OAR 340-93-130, to establish a new disposal site or to substantially alter, expand or improve a disposal site or to make a change in the method or type of disposal at a disposal site, unless the requirements of said feasibility study have been met by other prior submittals;
  - (f) [(e)] Include detailed plans and specifications as required by [OAR 340-61-035,] OAR 340-93-140.
  - (g) [(e)] Include [such] any other information [as] the Department may deem necessary to determine whether the proposed disposal site and the operation thereof will comply with all applicable rules of the Department.
- (4) If the Department determines that a disposal site is a "low-risk disposal site" or is not likely to ~~[have significant adverse effect on]~~ adversely impact the waters of the State or public health, ~~[or the environment,]~~ the Department may waive any of the requirements of subsections (3)(e) and (f) of this rule, OAR 340-93-150, 340-94-060(2) and 340-95-030(2), [(3)(e) and (d) of this rule, OAR 340-61-036 and 340-61-040(1).] In making this judgment, the Department may consider the size and location of the disposal site, the volume and types of waste received and any other relevant factor. The applicant must submit any information the Department deems necessary to determine that the proposed disposal site and site operation will comply with all pertinent rules of the Department.
- [(5) — If the requirements of subsections (3)(e) and (d) of this rule, OAR 340-61-036 and 340-61-040(1) are waived, the applicant must submit plan drawings and pertinent information including:]
- [(a) — A site location map indicating section, township, range and site boundaries;]
  - [(b) — A site layout drawing that illustrates the approximate size and location of all pertinent man-made and natural features of the site (roads, ditches, streams, berms, buildings, etc.) and the sequence of developing fill areas at the site;]
  - [(c) — A minimum of two perpendicular cross section drawings to show the design of the landfill cells and any pertinent landfill structures. Each cross section shall illustrate approximate existing grade, excavation grade and proposed final grade;]
  - [(d) — An operational plan which describes the proposed method of operation and progressive development of the trenches and/or landfill lifts or cells. The plan shall

also include a description of the types and quantities of waste materials that will be received (estimated maximum daily and average annual quantities); types of cover material to be used and proposed frequency of application; and measures to be used for the control of leachate, surface drainage, fire, litter and other potential hazards or nuisances as pertinent.]

(5) [~~(6)~~] If a local public hearing regarding a proposed disposal site has not been held and if, in the judgment of the Department, there is sufficient public concern regarding the proposed disposal site, the Department may, as a condition of receiving and acting upon an application, require that such a hearing be held by the county board of commissioners or county court or other local government agency responsible for solid waste management, for the purpose of informing and receiving information from the public.

(6) Permit renewals.

- (a) Notwithstanding OAR 340-14-020(1), after the effective date of this rule any permittee intending to continue operation beyond the permitted period must file a complete renewal application for renewal of the permit at least 180 days before the existing permit expires.
- (b) A complete application for renewal must be made in the form required by the Department and must include the information required by this Division and any other information required by the Department.
- (c) Any application for renewal which would substantially change the scope of operations of the disposal site must include written recommendations from the local government unit as required in OAR 340-93-070(3)(b).
- (d) If a completed application for renewal of a permit is filed with the Department in a timely manner prior to the expiration date of the permit, the permit shall not be deemed to expire until the Department takes final action on the renewal application.
- (e) If a completed application for renewal of a permit is not filed 180 days prior to the expiration date of the permit, the Department may require the permittee to close the site and apply for a closure permit, pursuant to OAR 340-94-100 or 340-95-050.
- (f) Permits continued under subsection (6)(d) of this rule remain fully effective and enforceable until the effective date of the new permit.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81; DEQ 2-1984, f. & ef. 1-16-84

## VARIANCES AND PERMIT EXEMPTIONS

### 340-93-080 [Renumbered from 340-61-080]

- (1) Variances. The Commission may by specific written variance or conditional permit waive certain requirements of these rules when circumstances of the solid waste disposal site location, operating procedures, and/or other conditions indicate that the purpose and intent of these rules can be achieved without strict adherence to all of the requirements.
- (2) Permit exemptions. Pursuant to OAR 340-93-050(2), a person wishing to obtain an exemption from the requirement to obtain a solid waste permit for disposal of an inert waste in specified locations may submit a request to the Department. The applicant must demonstrate that the waste is substantially the same as "clean fill." The request shall include but not be limited to the following information:
  - (a) The exact location (including a map) at which the waste is to be disposed of and a description of the surrounding area
  - (b) The monthly rate of disposal.
  - (c) A copy of the Material Safety Data Sheet (or equivalent, if a MSDS is not available) for all applicable raw materials used at the facility generating the waste.
  - (d) A description of the process generating the waste and how that process fits into the overall operation of the facility.
  - (e) Documentation that the waste is not hazardous as defined in OAR Chapter 340 Division 101. The procedure for making a hazardous waste determination is in OAR 340-102-011.
  - (f) A demonstration that the waste is inert, stable, non-putrescible, and physically similar to soil, rock, concrete, brick, building block, tile, or asphalt paving.
  - (g) A demonstration that the waste will not discharge constituents which would adversely impact the waters of the state or public health.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72

## PRELIMINARY APPROVAL

### 340-93-090 [Renumbered from 340-61-031]

- (1) The Department may issue written preliminary approval to any applicant for a Solid Waste Disposal Permit, prior to submission of detailed engineering plans and specifications, based on the material submitted in a feasibility study report in accordance with the requirements of [~~OAR 340-61-030.~~] OAR 340-93-070.



- (2) The purpose of the preliminary review and approval process is to inform the applicant of the Department's concerns, if any, regarding the proposal and to provide guidance in the development of the detailed plans and specifications required to complete the permit application. Receipt of preliminary approval does not grant the applicant any right to begin construction or operation of a disposal site.
- (3) Request for preliminary approval shall be made to the Department in writing. Within 45 days of receipt of such request, the Department shall either grant or deny preliminary approval or request additional information.
- (4) Granting of preliminary approval shall not prevent the Department from denying or conditionally approving a completed permit application.
- (5) If the Department denies preliminary approval, it shall clearly state the reasons for denial. Failure to receive preliminary approval shall not prevent an applicant from completing a permit application. Any application completed after denial of preliminary approval shall specifically address those concerns listed in the Department's letter of denial.

Stat. Auth.: ORS Ch. 459  
Hist.: DEQ 26-1981, f. & ef. 9-8-81

#### **PUBLIC NOTICE AND PUBLIC COMMENT**

##### **340-93-100 [Renumbered from 340-61-024]**

- (1) In order to inform potentially interested persons of a proposed permit issuance or permit renewal with significant changes, a public notice shall be prepared and circulated in a manner approved by the Director. In addition to the information required under OAR 340-11-007(1), the public notice shall contain:
  - (a) ~~[(1)]~~ A description of the facility which includes important natural features of the site.
  - (b) ~~[(2)]~~ A description of any leachate management systems or controls.
- (2) Solid waste permit documents for permit determinations, including modifications that involve selection of corrective action remedies, shall be available for public review and comment.

Stat. Auth.: ORS Ch. 183 & 468  
Hist.: DEQ 34-1990, f. 8-20-90, cert. ef. 9-1-90

#### **DENIAL OF PERMITS**

##### **340-93-110 [Renumbered from 340-61-026]**

Upon receipt of a completed application, the Department shall deny the permit if:

- (1) The application contains false information.
- (2) The application was wrongfully accepted by the Department.
- (3) The proposed disposal site would not comply with these rules or other applicable rules of the Department.
- (4) The proposal is not part of or not compatible with the adopted local solid waste management plan approved by the Department.
- (5) There is no clearly demonstrated need for the proposed new, modified or expanded disposal site or for the proposed change in the method or type of disposal.

Stat. Auth.: ORS Ch. 459  
 Hist.: DEQ 26-1981, f. & ef. 9-8-81

## VIOLATIONS

### 340-93-120 [Renumbered from 340-61-085]

Violations of these rules shall be punishable ~~[upon conviction]~~ as provided in ORS Chapter 459 and pursuant to OAR 340 Division 12.

Stat. Auth.: ORS Ch. 459  
 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72

## FEASIBILITY STUDY REPORT

### 340-93-130 [Renumbered from 340-61-030]

[A] The purpose of the feasibility study report required by 340-93-070(3)(e) is to demonstrate that the proposed facility will be located in a suitable site and will use appropriate technology in design, construction and operation.

The feasibility study report shall describe existing site conditions and a conceptual engineering proposal in sufficient detail to determine whether the facility is feasible and protects the environment. The feasibility study report shall include, but not be limited to, the following:

- (1) Information on site location and existing site conditions, including:
  - (a) A site location description, including a location map and list of adjacent landowners;
  - (b) [(+)(a)] An Existing Conditions Map of the area showing land use and zoning within 1/4 mile of the disposal site; and [- Also, any airport runway within 10,000 feet of the site or within 5,000 feet if used only by propeller driven aircraft; NOTE: Runways may be shown on a sealed insert.]

~~(b) The map shall show all structures, natural features of the land and the precise geographical location and boundaries of the disposal site. An on site bench mark shall be indicated and a north arrow drawn. Unless otherwise approved by the Department, the scale of the map shall be no greater than one inch equals 200 feet and, for landfills, topography of the site and area within 1/4 mile shall be shown with contour intervals not to exceed five feet.~~

(c) Identification of any siting limitations and how those limitations will be addressed.

(2) A description of the scope, magnitude, type, and purpose of the proposed facility, including but not limited to the following: ~~[proposed method or methods to be used in processing and disposing of solid wastes, including]~~

(a) Estimated capacity and projected life of the site;

(b) Identification of the communities, industries and/or markets to be served;

(c) ~~[a]~~ Anticipated types and quantities of solid wastes to be received, disposed of and/or processed by the facility;~~[7]~~

(d) ~~[justification of alternative disposal method selected,]~~ Summary of general design criteria;~~[7]~~ and submittal of conceptual engineering plans;

(e) Description of how the proposed technology compares to current technological practices, or to similar proven technology, including references to where similar technology has been effectively implemented;

(f) Demonstration that the proposed facility is compatible with the local solid waste management plan and the state solid waste management plan;

(g) ~~[p]~~ Planned future use of the disposal site after closure;~~[, type of equipment to be used, and projected life of the site.]~~

(h) Key assumptions used to calculate the economic viability of the proposed facility; and

(i) The public involvement process that has been and will be implemented.

(3) ~~[(4)]~~ A proposal for protection and conservation of the air, water and land environment surrounding the disposal site, including control and/or treatment of leachate, methane gas, litter and vectors, and control of other discharges, emissions and activities which may result in a public health hazard, a public nuisance or environmental degradation.

(4) ~~[(3)]~~ For a landfill, the following shall be included:

(a) A~~[a]~~ detailed soils, geologic, and groundwater report of the site prepared and stamped by a professional Engineer, Geologist or Engineering Geologist with current Oregon registration. The report shall include consideration of surface features, geologic formations, soil boring data, water table profile, direction of groundwater flow, background quality of water resources in the anticipated zone of influence of the landfill, need and availability of cover material, climate, average rates of precipitation, evapotranspiration, runoff, and infiltration (preliminary water balance calculations)~~[.]~~.

- (b) ~~[(a)]~~ Information on [S] soil borings ~~[shall be]~~ to a minimum depth of twenty feet below the deepest proposed excavation and lowest elevation of the site or to the permanent groundwater table if encountered within twenty feet. A minimum of one boring per representative landform at the site and an overall minimum of one boring per each ten acres shall be provided. Soil boring data shall include the location, depth, surface elevation and water level measurements of all borings, the textural classification (Unified Soil Classification System), permeability and cation exchange capacity of the subsurface materials and a preliminary soil balance;
- (c) ~~[(b)]~~ For all water wells located within the anticipated zone of influence of the disposal site, the depth, static level and current use shall be identified;
- (d) ~~[(c)]~~ Background groundwater quality shall be determined by laboratory analysis and shall include at least each of the constituents specified by the Department.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81

## DETAILED PLANS AND SPECIFICATIONS REQUIRED

### 340-93-140 [Renumbered from 340-61-035]

Except as provided in ~~[OAR 340-61-025(4):]~~ OAR 340-93-060(4):

- (1) Any person applying for a Solid Waste Disposal Permit shall submit plans and specifications ~~[to the Department]~~ conforming with current technological practices, and sufficiently detailed and complete so that the Department may evaluate all relevant criteria before issuing a permit. The plans and specifications shall follow the organizational format, and include the level of information detail, as required by the Department. The Department may refuse to accept plans and specifications that are incomplete and may request such additional information as it deems necessary to determine that the proposed disposal site and site operation will comply with all pertinent rules of the Department.
- (2) Engineering plans and specifications submitted to the Department shall be prepared and stamped by a professional engineer with current Oregon registration.
- (3) If in the course of facility construction any person desires to deviate significantly from the approved plans, the permittee shall submit a detailed description of the proposed change to the Department for review and approval prior to implementation. If the Department deems it necessary, a permit modification shall be initiated to incorporate the proposed change.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81

## CONSTRUCTION CERTIFICATION

### 340-93-150 [Renumbered from 340-61-036]

Except as provided in [~~OAR 340-61-025(4)~~] OAR 340-93-070(4):

- (1) The Department may require, upon completion of major or critical construction at a disposal site, that the permittee submit to the Department a final project report signed by the project engineer or manager as appropriate. The report shall certify that construction has been completed in accordance with the approved plans including any approved amendments thereto.
- (2) If any major or critical construction has been scheduled in the plans for phase development subsequent to the initial operation, the Department may require that the permittee submit additional certification for each phase when construction of that phase is completed.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 26-1981, f. & ef. 9-8-81

### PLACE FOR COLLECTING RECYCLABLE MATERIAL

#### 340-93-160 [New Rule]

- (1) All solid waste permittees shall ensure that a place for collecting source separated recyclable material is provided for every person whose solid waste enters the disposal site. The place for collecting recyclable material shall be located either at the disposal site or at another location more convenient to the population served by the disposal site.
- (2) [Renumbered from 340-60-065] Any disposal site that does not receive source separated recyclable material or solid waste containing recyclable material is not required to provide a place for collecting source separated recyclable material.
- (3) The Department may modify the requirements in this rule if the Department finds that the opportunity to recycle is being provided through an acceptable alternative method.

### CLEANUP MATERIALS CONTAMINATED WITH HAZARDOUS SUBSTANCES

#### 340-93-170

- (1) Applicability.
  - (a) For the purposes of this rule, "cleanup materials contaminated by hazardous substances" such as petroleum contaminated soils include only those materials which are not hazardous wastes as defined by ORS 466.005.
  - (b) This rule applies to cleanup materials contaminated with hazardous substances when such materials are removed from the site of contamination for treatment and/or disposal elsewhere. It does not apply to activities governed under ORS 465 or 466.
- (2) Management "hierarchy." Preferred management options for cleanup materials contaminated by hazardous substances are as follows:

- (a) First, use of alternative or resource recovery technologies where cross media effects are well controlled, such as thermal desorption;
- (b) Use of alternative technologies where cross media effects are less easily controlled, such as biological treatment of petroleum contaminated soils (bioremediation);
- (c) Disposal at a permitted landfill using best management practices.
- (d) If subsection (c) above is clearly impractical, or if local needs require disposal at a facility without a liner and leachate collection system, disposal at another permitted landfill pursuant to section (3)(d) of this rule may be authorized by the Department.

(3) Landfill disposal.

- (a) [Renumbered from 340-61-060(2):] [~~Wastes allowed to be disposed only in landfills using "best management practices" to protect groundwater.~~] For the purpose of this rule, best management practices shall be defined as a landfill meeting the design criteria in 40 CFR 258 Subpart D, or an alternate design approved by the Department with [including, at a minimum:] a bottom lining system which performs equivalent to a composite liner consisting of a 60 mil thickness geomembrane component and two feet of soil achieving a maximum saturated hydraulic conductivity of  $1 \times 10^{-6}$  centimeters per second; and a leachate collection and treatment system designed to maintain a leachate head of one foot or less. [~~Cleanup materials contaminated by hazardous substances:~~]
- (b) [Renumbered from 340-61-060(b):] The land and facilities used for disposal, treatment, transfer, or resource recovery of cleanup material contaminated by hazardous substances, unless that activity is otherwise regulated by the Department, shall be defined as a disposal site under ORS 459.005 and shall be subject to the requirements of these rules, including permit requirements.
- (c) [Renumbered from 340-61-060(2)(a):] [~~After January 1, 1991, e]~~ Cleanup materials contaminated by hazardous substances may be landfilled only in solid waste landfills authorized by the Department to receive this type of material.
- (d) [Renumbered from 340-61-060(c):] To protect groundwater, the Department may authorize an owner or operator of a landfill to receive cleanup materials contaminated by hazardous substances [~~, that are not hazardous wastes as defined by ORS 466.005, after January 1, 1991,~~] if the following criteria are met:
  - (A) The landfill uses "best management practices" as defined in this [~~section;~~] rule;
  - (B) A Special [~~w~~]Waste [~~m~~]Management [~~p~~]Plan for the facility pursuant to OAR 340-94-040(11)(b)(J) or OAR 340-95-020(3)(j) is approved by the Department which specifically addresses the management of the cleanup materials and requires, at a minimum, the following practices:
    - (i) The owner or operator of the landfill maintains for the facility a copy of the analytical results of one or more representative composite samples from the contaminated materials received for disposal;

- (ii) The owner or operator maintains for the facility a record of the source, types, and volumes of the contaminated materials received for disposal, and reports the sources, types, and volumes received to the Department in a quarterly waste report;
- (iii) Petroleum-contaminated soils, whenever possible, are incorporated into the daily cover material unless such practice would increase risks to public health or the environment; and
- (iv) Any other requirements which the Department determines are necessary to protect public health and the environment.

(e) [Renumbered from 340-61-060(2)(d):] The Department may authorize an owner or operator of a landfill to receive cleanup materials contaminated by hazardous substances for disposal [after January 1, 1991,] at a [facility] landfill which does not meet the [performance criteria in paragraph (e)(A) of this section] requirements of subsection (d) of this section if:

- (A) The landfill accepts less than 1,000 tons or 5% of the total volume of waste received, whichever is less, per year of cleanup material contaminated by hazardous substances; or
- (B) The cleanup materials contain concentrations of hazardous substances which do not exceed the cleanup levels approved by the Department for the site from which the materials were removed; or
- (C) The Department determines that the total concentrations and the hazardous characteristics of the hazardous substances in the cleanup materials will not present a threat to public health or the environment at the disposal facility, after considering the following factors:
  - (i) The compatibility of the contaminated materials with the volumes and characteristics of other wastes in the landfill;
  - (ii) The adequacy of barriers to prevent release of hazardous constituents to the environment, including air, ground and surface water, soils, and direct contact;
  - (iii) The populations or sensitive areas, such as aquifers, wetlands, or endangered species, potentially threatened by release of the hazardous substances;
  - (iv) The demonstrated ability of the owner or operator of the facility to properly manage the wastes;
  - (v) Relevant state and federal policies, guidelines and standards; and
  - (vi) The availability of treatment and disposal alternatives.

(4) Procedures.

(a) A landfill owner or operator who wants to receive cleanup materials contaminated

with hazardous substances shall apply to the Department for Hazardous Substance Authorization, including a Special Waste Management Plan for the materials to be received.

- (b) The applicant shall pay a Hazardous Substance Authorization fee as specified in OAR 340-97-120.

## WASTES REQUIRING SPECIAL MANAGEMENT

### 340-93-190 [New Rule; incorporates part of -060 "Specified Wastes"]

- (1) The following wastes require special handling or management practices, and shall not be deposited at a solid waste disposal site unless special provisions for such disposal are included in a Special Waste Management Plan pursuant to OAR 340-94-040(11)(b)(J) or 340-95-020(3)(j), or their disposal is otherwise approved by the Department:
- (a) [Renumbered from 340-61-060(3)(b):] Agricultural Wastes. Residues from agricultural practices shall be recycled, utilized for productive purposes or disposed of in a manner not to cause vector creation or sustenance, air or water pollution, public health hazards, odors, or nuisance conditions;
- (b) [Renumbered from 340-61-060(3)(c):] Construction and Demolition Materials. Due to the unusually combustible nature of construction and demolition materials, construction and demolition landfills or landfills incorporating large quantities of combustible materials shall be designed and operated to prevent fires and the spread of fires. [~~cross-sectioned into cells by earth dikes sufficient to prevent the spread of fire between cells,~~] in accordance with engineering or operations plans required by these rules. Equipment shall be provided of sufficient size and design to densely compact the material to be included in the landfill.
- (c) [Renumbered from 340-61-060(1)(d):] [~~Waste~~] Oil[s] Wastes. [~~Large quantities or~~] More than 30 gallons of petroleum-bearing wastes such as [~~waste oils, greases,~~] used oil filters, oil-absorbent materials, tank bottoms or oil sludges shall not be placed in any disposal site unless all recoverable liquid oils are removed and special provisions for handling and other special precautions are included in the facility's approved plans and specifications and operations[~~a~~] plan to prevent fires and pollution of surface or groundwaters. See also OAR 340-93-040(3)(a), Prohibited Disposal.
- (d) [Renumbered from 340-61-060(3)(d):] Infectious Wastes. All infectious wastes must be managed in accordance with [~~Chapter 763, Oregon Laws 1989;~~] ORS 459.386 to 459.405.
- (A) Pathological wastes shall be treated by incineration in an incinerator which complies with the requirements of OAR 340-25-850 to 340-25-905 unless the Department determines:
- (i) The disposal cost for incineration of pathological wastes generated within the individual watershed exceeds the average cost by twenty-five percent (25%) for all incinerators within the State of



Oregon which comply with the requirements of OAR 340-25-850 to 340-25-905; or the generator is unable to contract with any incinerator facility within the State of Oregon due to lack of incinerator processing capacity; and

- (ii) The State Health Division of the Oregon Department of Human Resources has prescribed by rule requirements for sterilizing "cultures and stocks," and this alternative means of treatment of the pathological waste is available.
- (B) Sharps. Sharps may be treated by placing them in a leak-proof, rigid, puncture-resistant, red container that is taped closed or tightly lidded to prevent loss of the contents. Sharps contained within containers which meet these specifications may be disposed of in a permitted municipal solid waste landfill without further treatment if they are placed in a segregated area of the landfill.
- (C) Medical waste. Medical waste other than infectious waste as defined by ORS 459.386 or hazardous wastes as defined by ORS 466.055 may be disposed of without special treatment in municipal solid waste landfills permitted by the Department if such disposal is not prohibited in the permit.
- (e) Asbestos. Wastes containing asbestos shall be disposed of pursuant to OAR 340-25-450 through 340-25-469.
- (2) Incinerator ash. Ash from domestic energy recovery facilities and from domestic solid waste incinerator disposal sites shall be disposed of at an ash monofill permitted by the Department. Such a monofill must meet standards in 40 CFR 258 and OAR 340 Division 94.
- (3) Polychlorinated Biphenyls (PCBs). Wastes containing polychlorinated biphenyls shall be disposed of pursuant to OAR 340 Division 110.

## STORAGE AND COLLECTION

### 340-93-210 [Renumbered from 340-61-070]

- (1) General Requirements. Storage and collection of solid waste shall be conducted in a manner to prevent:
  - (a) Vector production and sustenance;
  - (b) Conditions for transmission of diseases to man or animals;
  - (c) Hazards to service or disposal workers or to the public;
  - (d) Air pollution;
  - (e) Water pollution or allow escape of solid wastes or contaminated water to public waters;

- (f) Objectionable odors, dust, unsightliness, aesthetically objectionable conditions or other nuisance conditions.
- (2) Containers and Storage Areas:
- (a) **Standard Garbage Containers.** Individual containers for manual pickup shall have a tight-fitting lid or cover, handle holds or bales~~[,]~~ and be in good condition, ~~[and have maximum capacity of thirty-two (32) gallons. Collectors may refuse to pick up containers, including tote containers, of a gross weight of more than seventy five (75) pounds;]~~
  - (b) **Storage Bins and Storage Vehicles:**
    - (A) Storage bins shall be watertight and storage vehicles shall be ~~[leak-proof,]~~ operated in such manner to minimize leakage or spillage. Bins and vehicles shall have tight lids and covers that may be easily opened for intended use and shall have suitable fittings to facilitate removal or emptying;
    - (B) Containers, storage bins or storage vehicles shall be readily washable or have liners of paper, plastic or similar materials, or both.
  - (c) **Storage Area:**
    - (A) Storage houses, rooms or areas shall be of rodent proof construction which is readily cleanable with proper drainage;
    - (B) Storage rooms or buildings, if not refrigerated, shall be adequately vented and all openings shall be screened.
  - (d) **Unconfined Waste.** Unless special service or special equipment is provided by the collector for handling unconfined waste, materials such as rubbish and refuse, brush, leaves, tree cuttings, and other debris for manual pickup and collection shall be in securely tied bundles or in boxes, sacks, or other receptacles and solid waste so bundled shall not exceed 60 pounds in weight.
- (3) **Removal Frequency.** Putrescible solid waste shall be removed from the premises at regular intervals ~~[not to exceed seven days]~~. All solid waste shall be removed at regular intervals so as not to create the conditions cited in section (1) of this rule.
- (4) **Cleaning of Storage Area.** Areas around storage containers shall be cleaned regularly so as not to create the conditions cited in section (1) of this rule.
- (5) **Storage of Specified Wastes:**
- (a) **Industrial Solid Wastes.** Storage of industrial solid wastes shall be in accordance with these rules. Open storage areas shall not be closer than 100 feet horizontal distance from the normal highwater mark of any public waters unless special provision is made which prevents wastes, or drainage therefrom, from entering public waters;
  - (b) **Agricultural~~[e]~~ Wastes.** Storage of agricultural wastes shall not create vector production or sustenance, conditions for transmission of diseases to man or animals, water or air pollution and shall be in a manner to reduce and minimize objectionable

odors, unsightliness, aesthetically objectionable and other nuisance conditions;

- (c) Hazardous Wastes. Containers for hazardous wastes shall be marked to designate the content as toxic, explosive, or otherwise hazardous in a manner designed to give adequate protection to the collector and storage site operator and consistent with 40 CFR Part 262.
- (d) Asbestos. Wastes containing asbestos shall be stored and handled pursuant to OAR 340-25-450 through 340-25-469.
- (e) Polychlorinated Biphenyls (PCBs). Wastes containing polychlorinated biphenyls shall be stored and handled pursuant to OAR 340 Division 110.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72

## TRANSPORTATION

### 340-93-220 [Renumbered from 340-61-075]

- (1) Collection and Transfer Vehicles Construction and Operation:
  - (a) Solid waste collection and transfer vehicles and devices shall be constructed, loaded and operated so as to prevent dropping, leaking, sifting, or blowing or other escapement of solid waste from the vehicle;
  - (b) Collection and transfer vehicles and devices carrying loads which are likely to blow or fall shall have a cover which is either an integral part of the vehicle or device or which is a separate cover of suitable materials with fasteners designed to secure all sides of the cover to the vehicle or device and shall be used while in transit.
- (2) Cleaning Collection Vehicles. Collection and transfer vehicles or other devices used in transporting solid waste shall be cleanable and shall be cleaned at regular intervals [~~weekly intervals or more often~~] as necessary[~~7~~] to prevent odors, insects, rodents, or other nuisance conditions.
- (3) Waste Water. Waste water from the cleaning process of containers of non-hazardous waste shall be disposed of in a manner approved by the Department or state or local health department having jurisdiction.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72

LANDFILL SITING: REQUEST FOR DEQ ASSISTANCE

340-93-250 [Renumbered from 340-61-021]

- (1) A city or county responsible for implementing a Department-approved Solid Waste Management Plan which identifies the need for a landfill may request assistance from the Department in establishing a landfill under ORS 459.047.
- (2) ~~{(1)}~~ Applications for requests for assistance in siting landfills under ORS 459.047 shall be in the form of a letter signed by the governing body of the city or county with attachments as necessary to fully describe the need and justification for the request, need for the site as outlined in the Department-approved Solid Waste Management Plan and types of assistance required.
- (3) ~~{(2)}~~ When the request for assistance includes Department siting of the landfill under ORS 459.047, exhibits and information shall be submitted which document the following:
  - (a) The local government has an adopted, Department-approved Solid Waste Management Plan which identifies the need for a landfill;
  - (b) The local government has re-evaluated the plan in consultation with the Department and has confirmed that siting a landfill in the immediate future is still needed;
  - (c) An explanation of why the local government is unable to proceed successfully to site the landfill, including a discussion of progress to date and the obstacles to be overcome;
  - (d) All pertinent reports, plans, documents and records relative to the siting process to date will be made available to the Department at the Department's request;
  - (e) The local government has carried out a process for landfill siting (with technical assistance from the Department if requested) including a minimum of the following:
    - (A) Alternative sites have been reviewed and ranked as to adequacy and probable acceptability based upon locally developed criteria and applicable laws and regulations;
    - (B) Information has been gathered on at least the top ranked site sufficient to satisfy the requirements of the "Feasibility Study Report" provided for in ~~[OAR 340-61-030.]~~ OAR 340-93-130. Certain requirements of the "Feasibility Study Report" may be waived, for the purpose of this section, by the Department upon a demonstration of prohibitive cost or legal constraint;
    - (C) A public participation process, including the use of a citizens advisory committee or other approach which provides for public access, review and input has been carried out in the siting process.
- (4) ~~{(3)}~~ The Department shall give reasonable public notice of each such request, including the prompt publication of a summary of such request in the Secretary of State's Bulletin.

- (5) ~~[(4)]~~ Requests for siting under ORS 459.047 will be reviewed by the Commission and written findings as to the acceptability of the process under subsection (3)(e) ~~[(2)(e)]~~ of this rule will be prepared. Should the process be found incomplete, the Commission may request the Department or the local government to complete the process.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 25-1980, f. & ef. 10-2-80; DEQ 30-1980, f. & ef. 11-10-80; DEQ 2-1984, f. & ef. 1-16-84

(6) Landfill siting in Marion, Polk, Clackamas, Washington or Multnomah Counties under ORS 459.049:

- (a) [Renumbered from 340-61-022] Public comment to determine need. Prior to the Commission making a determination of need for any landfill site under ORS 459.049, the Department shall give prior reasonable public notice of, and hold a public informational hearing on, the need for the landfill site.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 25-1980, f. & ef. 10-2-80; DEQ 30-1980, f. & ef. 11-10-80

- (b) [Renumbered from 340-61-023] Public hearing in area affected by proposed site. Prior to siting a landfill under ORS 459.049, the Department shall give prior reasonable public notice of and hold a public informational hearing in the area affected by the proposed site.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 25-1980, f. & ef. 10-2-80; DEQ 30-1980, f. & ef. 11-10-80

**DIVISION 94**  
**SOLID WASTE: MUNICIPAL SOLID WASTE LANDFILLS**

**APPLICABILITY**

**340-94-001** [New Rule]

- (1) OAR 340 Division 94 applies to municipal solid waste landfills and their appurtenances such as leachate management facilities, and to ash monofills.
- (2) The criteria adopted in OAR 340-94-010 apply to all municipal solid waste landfills which receive waste on or after October 9, 1993.
- (3) Municipal solid waste landfills in which the last load of waste was received after October 9, 1991, but before October 9, 1993 and which complete installation of final cover within six months of last receipt of wastes, must comply with final cover requirements as specified in 40 CFR §258.1(d) and §258.60(a) but not with the other criteria adopted in OAR 340-94-010.
- (4) Persons who receive municipal solid waste but who are exempt from any or all criteria in 40 CFR Part 258 must comply with all relevant requirements in OAR 340 Divisions 93, 94, 95, 96 and 97.

**ADOPTION OF UNITED STATES ENVIRONMENTAL PROTECTION AGENCY MUNICIPAL SOLID WASTE REGULATIONS**

**340-94-010** [New Rule]

- (1) Except as otherwise modified or specified by OAR Chapter 340, Divisions 93 through 97, the criteria for municipal solid waste landfills, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 258, and any amendments or technical corrections promulgated thereto as of June 26, 1992 are adopted by reference and prescribed by the Commission to be observed by all persons who receive municipal solid waste and who are subject to ORS 459.005 through 459.405 and ORS 459A.
- (2) Wherever there may be a discrepancy between requirements in 40 CFR Part 258 as adopted by the Commission and these rules, the more protective standard shall apply.

**STATE FLEXIBILITY**

**340-94-020** [New Rule]

- (1) The provisions of Title 40 Code of Federal Regulations, Part 258, shall apply even where the Director is allowed to specify alternative schedules, procedures or designs, unless an applicant or permittee can demonstrate to the Department's satisfaction pursuant to Section 2 below that

an alternative schedule, procedure or design is at least as protective of the environment as the provisions in Part 258 or any more stringent requirements specified in OAR 340 Divisions 93 through 97.

- (2) The Director or his/her designate may approve an alternative schedule, procedure or design, per the following procedure:
  - (a) The applicant shall request in writing a waiver from the specific requirement.
  - (b) The request shall include supporting scientific documentation.
  - (c) The approval is not valid until approved in writing by the Department.
- (3) The Department will exercise its authority to issue Letter Authorizations and to grant variances, exceptions and waivers in a manner consistent with the requirements of 40 CFR Part 258.

## LOCATION RESTRICTIONS

### 340-94-030 [New rule]

- (1) If a municipal solid waste landfill is subject to 40 CFR Part 258 as provided in 40 CFR §258.1, the owner or operator shall comply with landfill location restrictions in 40 CFR Part 258 Subpart B. Except as otherwise provided in OAR 340-94, any person who designs, constructs, maintains, or operates any municipal solid waste landfill must do so in conformance with the location requirements of this rule.
- (2) [Renumbered from 340-61-040(10):] Floodplains. No person shall establish, expand or modify [permitter of] a landfill [located] in a floodplain [shall] in a manner that will allow the facility to restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.
- (3) [Renumbered from 340-61-040(7)] Endangered Species. In addition to the requirements of 40 CFR Part 258 Subpart B, n[on]o person shall establish, [operate,] expand or modify a landfill in a manner that will cause or contribute to the actual or attempted:
  - (a) Harassing, harming, pursuing, hunting, wounding, killing, trapping, capturing or collecting of any endangered or threatened species of plants, fish, or wildlife;
  - (b) Direct or indirect alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.
- (4) Sensitive Hydrogeological Environments. In addition to the requirements of 40 CFR 258 Subpart B, no person shall establish or expand a landfill in a gravel pit excavated into or above a water table aquifer or other sensitive or sole source aquifer, or in a designated wellhead protection area, where the Department has determined that:

- (a) Groundwater must be protected from pollution because it has existing or potential beneficial uses (OAR 340-40-020); and
- (b) Existing natural protection is insufficient or inadequate to minimize the risk of polluting groundwater.

## OPERATING CRITERIA

### 340-94-040

- (1) If a municipal solid waste landfill is subject to 40 CFR Part 258 as provided in 40 CFR §258.1, the owner or operator shall comply with landfill operating criteria in 40 CFR Part 258 Subpart C. Except as otherwise provided in OAR 340-94, any person who maintains or operates any municipal solid waste landfill must do so in conformance with the operating requirements of this rule.
- (2) [Renumbered from 340-61-040(2):] Open Burning. No person shall conduct the open burning of solid waste at a landfill. [~~except in accordance with plans approved and permits issued by the Department prior to such burning.~~] The Department may authorize the infrequent [~~open~~] burning of land-clearing debris such as tree stumps and limbs, brush[~~, timbers, lumber~~] and other wood waste, except that open burning of industrial wood waste is prohibited.
- (3) [Renumbered from 340-61-040(5):] Surface Water:
  - (a) No person shall cause a discharge of pollutants from a landfill into public waters including wetlands, in violation of any applicable state or federal water quality rules or regulations;
  - (b) Each landfill permittee shall ensure that surface runoff and leachate seeps are controlled so as to minimize discharges of pollutants into public waters.
- (4) [Renumbered from 340-61-040(9):] Surface Drainage Control. Each permittee shall ensure that:
  - (a) The landfill is [~~designed, constructed and~~] maintained so that drainage will be diverted around or away from active and completed operational areas;
  - (b) The surface contours of the landfill are maintained such that ponding of surface water is minimized.
- (5) Gas Control.
  - (a) No person shall operate or maintain a landfill except in conformance with the provisions for gas control in 340-94-060(4).
  - (b) [Renumbered from 340-61-(6):] Monitoring:
    - (A) [~~(a)~~] Where the Department finds that a landfill's location and geophysical condition indicate that there is a reasonable probability of potential adverse effects on public health or the environment, the Department may require a



permittee to provide monitoring wells to determine the effects of the landfill on ~~[groundwater and/or on]~~ the concentration of methane gas in the soil;

- (B) ~~[(b)]~~ In addition to the requirements of 40 CFR §258.23, [I]if the Department determines that monitoring wells are required at a landfill, the permittee shall provide and maintain the wells at the locations specified by the Department and~~[, at the Department's request,]~~ shall submit a copy of the ~~[well-logs]~~ geologic log and record of well construction to the Department within thirty (30) days of completion of construction;
- (C) ~~[(c)]~~ In addition to the requirements of 40 CFR §258.23, [W]where the Department determines that self-monitoring is practicable, the Department may require that the permittee collect and analyze samples of ~~[surface water, groundwater and/or]~~ gas, at intervals specified and in a manner approved by the Department, and submit the results in a format and within a time frame specified by the Department;
- (D) ~~[(d)]~~ In addition to the requirements of 40 CFR §258.23, [F]the Department may require permittees who do self-monitoring to periodically split samples with the Department for the purpose of quality control.

- (6) [Renumbered from 340-61-040(10):] Floodplains. No permittee of a landfill located in a floodplain shall allow the facility to restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.
- (7) [Renumbered from 340-61-040(11):] Cover Material. Each permittee shall provide adequate quantities of cover material of a type approved by the Department for the covering of deposited solid waste at a landfill in accordance with the approved operations~~[at]~~ plan, and permit conditions and these rules.
- (8) [Renumbered from 340-61-040(12):] Cover Frequency. Each permittee shall place a compacted layer of at least six inches of approved cover material over the compacted wastes in a landfill at intervals specified in the permit. ~~[In setting a requirement for cover frequency,]~~ An applicant may propose and the Department may approve alternative cover designs or procedures which are equally protective. In evaluating such a proposal for alternative cover design or procedures, the Department may consider such factors as the volume and types of waste received, hydrogeologic setting of the facility, climate, proximity of residences or other occupied buildings, site screening, availability of equipment and cover material, any past operational problems and any other relevant factor.
- (9) [Renumbered from 340-61-040(14):] Access Control. Each permittee shall insure that the landfill has a perimeter barrier or topographic constraints adequate to restrict unauthorized entry.
- (10) [Renumbered from 340-61-040(23):] Vector and Bird Control:
- (a) Each permittee shall ensure that effective means such as the periodic application of earth cover material or other techniques as appropriate are taken at the landfill to control or prevent the propagation, harborage, or attraction of flies, rodents, or other vectors and to minimize bird attraction;

- (b) No permittee of a landfill disposing of putrescible wastes that may attract birds and which is located within 10,000 feet (3,048 meters) of any airport runway used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport used by only piston-type aircraft shall allow the operation of the landfill to increase the likelihood of bird/aircraft collisions.

(11) In addition to the requirements of 40 CFR Part 258 Subpart C, any person who maintains or operates any municipal solid waste landfill must do so in conformance with the following:

- (a) Permitted Wastes. Only the waste types listed in the solid waste permit or the approved operations plan, or wastes previously approved by the Department in writing, may be accepted for disposal. In certain cases the Department may also require approval of the source(s) of the waste. Written requests for authorization to accept additional waste types shall be submitted to and approved by the Department prior to disposal of such waste. Requests for authorization to accept additional waste types shall include the following information:

- (A) Waste characterization with detailed physical and chemical characteristics of the waste type such as percent solids, results of the paint filter test, Toxicity Characteristic Leaching Procedure ("TCLP") results, polychlorinated biphenyl content, and test results for ignitability, reactivity, corrosivity, etc., as appropriate.
- (B) The approximate volume of waste to be disposed of on a daily and yearly basis.
- (C) The source of the wastes and a description of the processes which generated the waste.
- (D) Special handling and disposal procedures, to be incorporated into the Special Waste Management Plan pursuant to paragraph (11)(b)(J) of this rule.

- (b) Operations Plan. Each permittee shall maintain a [Renumbered from 340-61-040(1)(d)] [~~(d)~~-A] detailed operations[~~a~~] plan [~~and timetable~~] which describes the proposed method of operation and progressive development of trenches and/or landfill lifts or cells. Said plan shall include at least the following:

- (A) A[~~a~~] description of the types and quantities of waste materials that will be received (estimated maximum daily and average annual quantities);
- (B) A program for detecting and preventing the disposal at the facility of regulated hazardous wastes and polychlorinated biphenyl wastes and any other unacceptable wastes as determined by the Department.
- (C) M[~~m~~]ethods of waste unloading, placement, compaction and covering;
- (D) A[~~a~~]reas and/or procedures to be used for disposal of waste materials during inclement weather;
- (E) T[~~t~~]ypes and weights of equipment to be used for site operation;
- (F) D[~~d~~]etailed description of any salvaging or resource recovery operations to

take place at the facility;

- (G) S[s]uch measures for the collection, containment, treatment or disposal of leachate as may be required;
- (H) P[p]rovisions for managing surface drainage; [and]
- (I) M[m]easures to be used for the control of fire, dust, decomposition gases, birds, disease vectors, scavenging, access, flooding, erosion, and blowing debris, as pertinent[-]; and
- (J) [Renumbered from 340-61-040(17):] A Special Waste Management Plan if certain wastes are received, which due to their unique characteristics, require [S]special [H]handling. Such wastes may present personnel safety hazards, create odor and vector problems, generate excessive leachate, lead to excessive settlement, puncture or tear the landfill liner, pose a fire hazard, or increase the toxicity of landfill leachate. The Special Waste Management Plan shall describe special acceptance, waste characterization, handling, storage, recordkeeping and disposal procedures for those materials. Wastes requiring a Special Waste Management Plan include:
  - (i) Cleanup materials contaminated with hazardous substances pursuant to OAR 340-93-170;
  - (ii) Wastes requiring special management pursuant to OAR 340-93-190(1);
  - (iii) Additional wastes authorized for disposal by the Department pursuant to subsection (11)(a) of this rule; and
  - (iv) Large dead animals, sewage sludges and grit, septage[ie tank pumpings, hospital wastes], industrial solid wastes and other materials which may be hazardous or difficult to manage by virtue of their character or large volume, [shall not be deposited at a disposal site] unless special provisions for such disposal are [included in the operational plan or] otherwise approved by the Department.
- (c) [Renumbered from 340-61-040(3):] Leachate. Any person [designing,] constructing, [or] operating or maintaining a landfill shall ensure that leachate production is minimized. Where required by the Department, leachate shall be collected and treated or otherwise controlled in a manner approved by the Department.
- (d) Endangered Species. No person shall operate a landfill in a manner that will affect endangered species in any of the ways specified in OAR 340-94-030(3).
- (e) [Renumbered from 340-61-040(13):] Access roads. Each permittee shall ensure that roads from the landfill property line to the active operational area and roads within the operational area are constructed and maintained so as to minimize traffic hazards, dust and mud and to provide reasonable all-weather access for vehicles using the site.
- (f) [Renumbered from 340-61-040(15):] Site Screening. To the extent practicable, each permittee shall screen the active landfill area from public view by trees, shrubbery,

fence, stockpiled cover material, earthen berm, or other appropriate means.

(g) [Renumbered from 340-61-040(16):] Fire Protection:

- (A) Each landfill permittee shall make arrangements with the local fire control agency to immediately acquire their services when needed and shall provide adequate on-site fire protection as determined by the local fire control agency;
- (B) In case of accidental fires at the site, the operator shall be responsible for initiating and continuing appropriate fire-fighting methods until all smoldering, smoking and burning ceases;
- (C) No operator shall permit the dumping of combustible materials within the immediate vicinity of any smoldering, smoking or burning conditions at a landfill, or allow dumping activities to interfere with fire-fighting efforts.

(h) [Renumbered from 340-61-040(18):] Signs. Each permittee of a landfill open to the public shall post a clearly visible and legible sign or signs at the entrance to the disposal site specifying the name of the facility, the hours and days the site is open to the public, an emergency phone number and listing the general types of materials which either will be accepted or will not be accepted.

(i) [Renumbered from 340-61-040(19):] Truck Washing Facilities. Each permittee shall ensure that any truck washing areas at a landfill are hard surfaced and that any on-site disposal of wash waters is accomplished in a manner approved by the Department.

(j) [Renumbered from 340-61-040(20):] Sewage Disposal. Each landfill permittee shall ensure that any on-site disposal of sewage is accomplished in a manner approved by the Department.

(k) [Renumbered from 340-61-040(21):] Salvage: ~~[(A)]~~ A permittee may conduct or allow the recovery of materials such as metal, paper and glass from the landfill only when such recovery is conducted in a planned and controlled manner approved by the Department[;] in the facility's operations plan.

~~[(B) — No person may salvage food products, hazardous materials or furniture and bedding with concealed filling from a landfill.]~~

(l) [Renumbered from 340-61-040(22):] Litter:

- (A) Each permittee shall ensure that effective measures such as compaction, the periodic application of cover material or the use of portable fencing or other devices are taken to minimize the blowing of litter from the active working area of the landfill;
- (B) Each landfill operator shall collect windblown materials from the disposal site and adjacent property and properly dispose of same at sufficient frequency to prevent aesthetically objectionable accumulations.

(12) [Renumbered from 340-61-040(24):] Weighing. The Department may require that landfill permittees provide scales and weigh incoming loads of solid waste, to facilitate solid waste

management planning and decision making.

- (13) [Renumbered from 340-61-040(25):] Records. The Department may require records and reports it considers reasonably necessary to ensure compliance with conditions of a permit, ~~[of] these rules[-]~~ or provisions of OAR 340 Divisions 90 and 91. All records must be kept for a minimum of five years.

## DESIGN CRITERIA

340-94-060

- (1) If a municipal solid waste landfill is subject to 40 CFR Part 258 as provided in 40 CFR §258.1, the owner or operator shall comply with landfill design criteria in 40 CFR Part 258 Subpart D. Except as otherwise provided in OAR 340-94, any person who designs, constructs, expands or modifies any municipal solid waste landfill must do so in conformance with the design requirements of this rule.
- (2) [Renumbered from 340-61-040(1):] Plan Design Requirements. In addition to the requirements of 40 CFR Part 258 Subpart D, [U]unless an exemption has been granted under OAR [340-61-025(4),] 340-93-070(4), in addition to the requirements of OAR 340-93-070, [340-61-025,] detailed plans and specifications for landfills shall include but not be limited to:
  - (a) Topographic maps which show natural features of the site; the location and design of all pertinent existing and proposed structures, such as berms, dikes, surface drainage control devices, access and on-site roads, water and waste water facilities, gas control devices, monitoring wells, fences, utilities, maintenance facilities, shelter and buildings; legal boundaries and property lines, and existing contours and projected finish grades. Unless otherwise approved by the Department, the scale of the plan drawings shall be no greater than one inch equals 200 feet, with contour intervals not to exceed five feet. Horizontal and vertical controls shall be established and tied to an established bench mark located on or near the site. Where the Department deems it essential to ensure compliance with these rules, The bench mark shall be referenced to the Oregon State Plane Co-ordinate System, Lambert Projection;
  - (b) A minimum of two perpendicular cross section drawings through the landfill. Each cross section shall illustrate existing grade, excavation grade, proposed final grade, any additions for groundwater protection, water table profile and soil profile. Additional cross sections shall be provided as necessary to adequately depict underlying soils, geology and landfill contours, and to display the design of environmental protection devices or structures;
  - (c) A description of the design assumptions and methods used to forecast flows and to determine the sizing of pumps, pipes, ditches, culverts and other hydraulic equipment used for the collection, treatment and disposal of leachate and for the control of surface drainage;
  - (d) A detailed operations~~[a]~~ plan pursuant to OAR 340-94-040(11)(b) and timetable which describes the proposed method of operation and progressive development of trenches and/or landfill lifts or cells. ~~[Said plan shall include a description of the types and quantities of waste materials that will be received (estimated maximum daily and average annual quantities); methods of waste unloading, placement, compaction and covering; areas and/or procedures to be used for disposal of waste materials during inclement weather; types and weights of equipment to be used for site operation; detailed description of any salvaging or resource recovery operations to take place at the facility; such measures for the collection, containment, treatment or disposal of leachate as may be required; provisions for managing surface drainage; and measures to be used for the control of fire, dust, decomposition gases, birds, disease vectors,~~

~~scavenging, access, flooding, erosion, and blowing debris, as pertinent.]~~

- (3) [Renumbered from 340-61-040(3):] Leachate. In addition to the requirements of 40 CFR Part 258 Subpart D, [A]any person designing[7] or constructing[7, or operating] a landfill shall ensure that leachate production is minimized. Where required by the Department, leachate shall be collected and treated or otherwise controlled in a manner approved by the Department. Leachate storage and treatment impoundments shall be located, designed, constructed and monitored, at a minimum, to the same standards of environmental protection as municipal solid waste landfills.
- (4) [Renumbered from 340-61-040(8):] Gas Control. No person shall establish, ~~operate,~~ expand or modify a landfill such that:
- (a) The concentration of methane (CH<sub>4</sub>) gas at the landfill exceeds twenty-five (25) percent of its lower explosive limit in facility structures (excluding gas control or gas recovery system components) or its lower explosive limit at the property boundary;
  - (b) Malodorous decomposition gases become a public nuisance.
- (5) [Renumbered from 340-61-040(9)(a):] Surface Drainage Control. Each permittee shall ensure that the landfill is designed[7] and constructed [and maintained] so that drainage will be diverted around or away from active and completed operational areas.
- (6) Additional Requirements to Protect or to Monitor Potential Threats to Groundwater. When a person applies to construct a new or expanded landfill cell at a municipal solid waste landfill, the Department shall evaluate the need to provide protection to groundwater in addition to the requirements of 40 CFR 258 Subpart D. The Department shall also evaluate whether the specific conditions at the site require an enhanced ability to monitor potential threats to groundwater in addition to the requirements in 40 CFR Subpart E. The evaluation shall be based on site-specific data, including but not limited to location, geography, hydrogeology and size of the site. To assist in the Department's evaluation, the applicant shall provide necessary relevant data. The Department may require a secondary leachate collection system, and/or leak detection system, or other design or technology providing equivalent protection to the environment if the Department determines that:
- (a) There is significant potential for adverse impact to groundwater from the proposed cell; or
  - (b) Additional measures are necessary to provide adequate monitoring of potential threats to the groundwater.

## GROUNDWATER MONITORING AND CORRECTIVE ACTION

### 340-94-080

If a municipal solid waste landfill is subject to 40 CFR Part 258 as provided in 40 CFR §258.1, the owner or operator shall comply with ground-water monitoring and corrective action requirements in 40 CFR Part 258 Subpart E. Consistent with those requirements, all municipal solid waste landfill owners and operators shall also comply with this rule.

(1) [Renumbered from 340-61-040(4):] Groundwater:

- (a) Each landfill permittee shall ensure that:
  - (A) The introduction of any substance from the landfill into an underground drinking water source does not result in a violation of any applicable federal or state drinking water rules or regulations beyond the solid waste boundary of the landfill or an alternative boundary specified by the Department;
  - (B) The introduction of any substance from the landfill into an aquifer does not impair the aquifer's recognized beneficial uses, beyond the solid waste boundary of the landfill or an alternative boundary specified by the Department, consistent with ~~[the Commission's adopted Groundwater Quality Protection Policy]~~ OAR 340 Division 40 and any applicable federal or state rules or regulations.
- (b) Where monitoring is required, monitoring wells shall be placed at Department-approved locations between the solid waste boundary and the property line if adequate room exists;
- (c) The Department may specify an alternative boundary based on a consideration of all of the following factors:
  - (A) The hydrogeological characteristics of the facility and surrounding land;
  - (B) The volume and physical and chemical characteristics of the leachate;
  - (C) The quantity and directions of flow of groundwater;
  - (D) The proximity and withdrawal rates of groundwater users;
  - (E) The availability of alternative drinking water supplies;
  - (F) The existing quality of the groundwater including other sources of contamination and their cumulative impacts on the groundwater; and
  - (G) Public health, safety, and welfare effects.

(2) [Renumbered from 340-61-040(6):] Monitoring:

- (a) Where the Department finds that a landfill's location and geophysical condition indicate that there is a reasonable probability of potential adverse effects on public health or the environment, the Department may require a permittee to provide monitoring wells at Department-approved locations and depths to determine the effects of the landfill on groundwater ~~[and/or on the concentration of methane gas in the soil];~~
- (b) In addition to the requirements in 40 CFR Part 258 Subpart E, [If] the Department determines that monitoring wells are required at a landfill, the permittee shall provide and maintain the wells at the locations specified by the Department and ~~[at the Department's request,]~~ shall submit a copy of the geologic log and record of well construction ~~[well logs]~~ to the Department within thirty (30) days of completion of



construction;

- (c) In addition to the requirements in 40 CFR Part 258 Subpart E, [W]where the Department determines that self-monitoring is practicable, the Department may require that the permittee collect and analyze samples of surface water<sup>[7]</sup> and/or groundwater [~~and/or gas~~], at intervals specified and in a manner approved by the Department, and submit the results in a format and within a time frame specified by the Department;
- (d) The Department may require permittees who do self-monitoring to periodically split samples with the Department for the purpose of quality control.

## CLOSURE AND POST-CLOSURE CARE: CLOSURE PERMITS

### 340-94-100 [Renumbered from 340-61-028; incorporates part of 340-61-020]

If a municipal solid waste landfill is subject to 40 CFR Part 258 as provided in 40 CFR §258.1, the owner or operator shall comply with closure criteria in 40 CFR §258.60. All municipal solid waste permittees shall also comply with this rule.

- (1) [Renumbered from 340-61-020(7):] Closure Permit:
  - (a) At least five years prior to anticipated closure of a municipal solid waste landfill, [~~land disposal site,~~] the person holding the disposal site permit shall apply to renew the permit to cover the period of time remaining for site operations, closure of the site, and all or part of the time that active post-closure site maintenance is required by the Department;
  - (b) The person who holds or last held the disposal site permit, or, if that person fails to comply, then the person owning or controlling a municipal solid waste landfill [~~land disposal site~~] that is closed and no longer receiving solid waste after January 1, 1980, must continue or renew the disposal site permit after the site is closed for the duration of the period in which the Department continues to actively supervise the site, even though solid waste is no longer received at the site.
- (2) [~~(4)~~] Applications for closure permits must include but are not limited to:
  - (a) A closure plan prepared in accordance with [~~OAR 340-61-033;~~] OAR 340-94-110;
  - (b) A financial assurance plan prepared in accordance with [~~OAR 340-61-034]~~ OAR 340-94-140 unless exempted by the Department pursuant to section (3) [~~(2)~~] of this rule;
  - (c) If the permittee does not own and control the property, the permittee shall demonstrate to the Department that the permittee has access to the landfill [~~land disposal site~~] property after closure to monitor and maintain the site and operate any environmental control facilities;
  - (d) If any person other than the permittee assumes any responsibility for any closure or post-closure activities, that responsibility shall be evidenced by a written contract

between the permittee and each person assuming any responsibility.

- (3) [~~(2)~~] The Department may exempt from the financial assurance requirements [~~any land disposal site including but not limited to domestic waste sites, demolition waste sites, and industrial waste sites.~~] municipal solid waste landfills which stop receiving waste before October 9, 1993 and complete installation of final cover within six months of last receipt of wastes. To be eligible for this exemption, the applicant shall demonstrate to the satisfaction of the Department that the site meets all of the following criteria and that the site is likely to continue to meet all of these criteria until the site is closed in a manner approved by the Department:
- (a) The landfill [~~disposal site~~] poses no significant threat of adverse impact on groundwater or surface water;
  - (b) The landfill [~~disposal site~~] poses no significant threat of adverse impact on public health or safety;
  - (c) No system requiring active operation and maintenance is necessary for controlling or stopping discharges to the environment;
  - (d) The area of the landfill [~~land disposal site~~] that has been used for waste disposal and has not yet been properly closed in a manner acceptable to the Department is less than and remains less than two acres or complies with a closure schedule approved by the Department.
- (4) [~~(3)~~] In determining if the applicant has demonstrated that a site meets the financial assurance exemption criteria, the Department will consider existing available information including, but not limited to, geology, soils, hydrology, waste type and volume, proximity to and uses of adjacent properties, history of site operation and construction, previous compliance inspection reports, existing monitoring data, the proposed method of closure and the information submitted by the applicant. The Department may request additional information if needed.
- (5) [~~(4)~~] An exemption from the financial assurance requirement granted by the Department will remain valid only so long as the site continues to meet the exemption criteria in section [~~(2)~~] (3) of this rule. If the site fails to continue to meet the exemption criteria, the Department may modify the closure permit to require financial assurance.
- (6) [~~(5)~~] While a closure permit is in effect, the permittee shall submit a report to the Department within 90 days of the end of the permittee's fiscal year or as otherwise required in writing by the Department, which contains but is not limited to:
- (a) An evaluation of the approved closure plan discussing current status, unanticipated occurrences, revised closure date projections, necessary changes, etc.;
  - (b) An evaluation of the approved financial assurance plan documenting an accounting of amounts deposited and expenses drawn from the fund, as well as its current balance. This evaluation must also assess the adequacy of the financial assurance and justify any requests for changes in the approved plan;
  - (c) Other information requested by the Department to determine compliance with the rules of the Department.

- (7) [~~(6)~~] The Department shall terminate closure permits for municipal solid waste landfills [~~land disposal sites~~] not later than ten years after the site is closed unless the Department finds there is a need to protect against a significant hazard or risk to public health or safety or the environment.
- (8) [~~(7)~~] Any time after a municipal solid waste landfill [~~land disposal site~~] is closed, the permit holder may apply for a termination of the permit, a release from one or more of the permit requirements or termination of any applicable permit fee. Before the Department grants a termination or release under this section, the permittee must demonstrate and the Department must find that there is no longer a need for:
- (a) Active supervision of the site;
  - (b) Maintenance of the site; or
  - (c) Maintenance or operation of any system or facility on the site.
- (9) [~~(8)~~] The Department or an authorized governmental agency may enter a municipal solid waste landfill [~~land disposal site~~] property at reasonable times to inspect and monitor the site as authorized by ORS 459.285.
- (10) [~~(9)~~] The closure permit remains in effect and is a binding obligation of the permittee until the Department terminates the permit according to sections [~~(6) or (7)~~] (7) or (8) of this rule or upon issuance of a new closure permit for the site to another person following receipt of a complete and acceptable application.

(Note: In addition to the requirements set forth in this rule, 40 CFR §258.61 requires municipal landfill owners and operators subject to 40 CFR Part 258 to conduct post-closure care for 30 years. Municipal solid waste landfill owners and operators are subject to the requirements of Federal law.)

Stat. Auth.: ORS Ch.  
Hist.: DEQ 2-1984, f. & ef. 1-16-84

## CLOSURE AND POST-CLOSURE CARE: CLOSURE PLANS

### 340-94-110 [Renumbered from 340-61-033]

If a municipal solid waste landfill is subject to 40 CFR Part 258 as provided in 40 CFR §258.1, the owner or operator shall comply with closure and post-closure care requirements in 40 CFR Part 258 Subpart F. All municipal solid waste permittees shall also comply with this rule.

- (1) A closure plan must specify the procedures necessary to completely close the landfill [~~land disposal site~~] at the end of its intended operating life. The plan must also identify the post-closure activities which will be carried on [~~after closure~~] to properly monitor and maintain the closed municipal solid waste landfill [~~completed land disposal~~] site. At a minimum, the plan shall include:
- (a) Detailed plans and specifications consistent with the applicable requirements of [~~OAR 340-61-035 and 340-61-040(1)~~], OAR 340-93-140 and 340-94-060(2), unless an

exemption is granted as provided in [~~OAR 340-61-025(4)~~]; OAR 340-93-070(4);

NOTE: If some of this information has been previously submitted, the permittee shall review and update it to reflect current conditions and any proposed changes in closure or post-closure activities.

- (b) A description of how and when the facility will be closed. The description shall, to the extent practicable, show how the disposal site will be closed as filling progresses to minimize the area remaining to be closed at the time that the site stops receiving waste. A time schedule for completion of closure shall be included;
  - (c) Details of how leachate discharges will be minimized and controlled and treated if necessary;
  - (d) Details of any landfill gas control facilities, their operation and frequency of monitoring;
  - (e) Details of final cover including soil texture, depth and slope;
  - (f) Details of surface water drainage diversion;
  - (g) A schedule of monitoring the site after closure;
  - (h) A projected frequency of anticipated inspection and maintenance activities at the site after closure, including but not limited to repairing, recovering and regrading settlement areas, cleaning out surface water diversion ditches, and re-establishing vegetation;
  - (i) Other information requested by the Department necessary to determine whether the disposal site will comply with all applicable rules of the Department.
- (2) Approval of Closure Plan. After approval by the Department, the permittee shall implement the closure plan within the approved time schedule.
- (3) Amendment of Plan. The approved closure plan may be amended at any time during the active life of the landfill or during the post-closure care period as follows:
- (a) The permittee must amend the plan whenever changes in operating plans or facility design, or changes in these rules, or events which occur during the active life of the landfill or during the post-closure care period, significantly affect the plan. The permittee must also amend the plan whenever there is a change in the expected year of closure. The permittee must submit the necessary plan amendments to the Department for approval within 60 days after such changes or as otherwise required by the Department;
  - (b) The permittee may request to amend the plan to alter the closure requirements, to alter the post-closure care requirements, or to extend or reduce the post-closure care period based on cause. The request must include evidence demonstrating to the satisfaction of the Department that:
    - (A) The nature of the landfill makes the closure or post-closure care requirements unnecessary; or

- (B) The nature of the landfill supports reduction of the post-closure care period;  
or
  - (C) The requested extension in the post-closure care period or alteration of closure or post-closure care requirements is necessary to prevent threat of adverse impact on public health, safety or the environment.
- (c) The Department may amend a permit to require the permittee to modify the plan if it is necessary to prevent the threat of adverse impact on public health, safety or the environment. Also, the Department may extend or reduce the post-closure care period or alter the closure or post-closure care requirements based on cause.

Stat. Auth.: ORS Ch.

Hist.: DEQ 2-1984, f. & ef. 1-16-84

### CLOSURE REQUIREMENTS [OF LAND DISPOSAL SITES]

#### 340-94-120 [Renumbered from 340-61-042]

If a municipal solid waste landfill is subject to 40 CFR Part 258 as provided in 40 CFR §258.1, the owner or operator shall comply with closure and post-closure care requirements in 40 CFR Part 258 Subpart F. All municipal solid waste permittees shall also comply with this rule.

- (1) When solid waste is no longer received at a municipal solid waste landfill, [~~land disposal site,~~] the person who holds or last held the permit issued under ORS 459.205 or, if the person who holds or last held the permit fails to comply with this section, the person owning or controlling the property on which the landfill [~~disposal site~~] is located, shall close and maintain the site according to the requirements of ORS Chapter 459, all applicable rules adopted by the Commission under ORS 459.045 and all requirements imposed by the Department as a condition to renewing or issuing a disposal site permit.
- (2) Unless otherwise approved or required in writing by the Department, no person shall permanently close or abandon a municipal solid waste landfill, [~~land disposal site,~~] except in the following manner:
  - (a) All [~~filled~~] areas containing solid waste not already closed in a manner approved by the Department shall be covered with at least three (3) feet of compacted soil of a type approved by the Department graded to a minimum two (2) percent and maximum thirty (30) percent slope unless the Department authorizes a lesser depth or an alternative final cover design. [~~a different kind of cover material.~~] In applying this standard, the Department will consider the potential for adverse impact from the disposal site on public health, safety or the environment, and the ability for the permittee to generate the funds necessary to comply with this standard before the disposal site closes. A permittee may request that the Department approve a lesser depth of cover material or an alternative final cover design based on the type of waste, climate, geological setting, degree of environmental impact. [~~For those land disposal sites existing on January 1, 1984 which will close, or the parts of those sites which will close, prior to January 1, 1989, only a minimum of two feet of approved soil will be required unless the Department finds that additional cover material is~~

~~necessary to minimize environmental impacts from the site;]~~

- (b) Final cover material shall be applied to each portion of a municipal solid waste landfill ~~[land disposal site]~~ within sixty (60) days after said portion reaches approved maximum fill elevation, except in the event of inclement weather, in which case final cover shall be applied as soon as practicable;
  - (c) The finished surface of the ~~[filled]~~ closed areas shall consist of soils of a type or types consistent with the planned future use and approved by the Department. Unless otherwise approved by the Department, a vegetative cover of native grasses shall be promptly established over the finished surface of the ~~[disposal]~~ closed site;
  - (d) All surface water must be diverted around the area of the disposal site used for waste disposal or in some other way prevented from contacting the waste material;
  - (e) All systems required by the Department to control or contain discharges to the environment must be completed and operational.
- (3) Closure of municipal solid waste landfills ~~[land disposal sites]~~ shall be in accordance with detailed plans approved in writing by the Department pursuant to ~~[OAR 340-61-033]~~ OAR 340-94-110.
- (4) Closure approval:
- (a) When closure is completed, the permittee shall submit a written request to the Department for approval of the closure;
  - (b) Within thirty days of receipt of a written request for closure approval, the Department shall inspect the facility to verify that closure has been effected in accordance with the approved closure plan and the provisions of these rules;
  - (c) If the Department determines that closure has been properly completed, the Department shall approve the closure in writing. Closure shall not be considered complete until such approval has been made. The date of approval notice shall be the date of commencement of the post-closure period.

Stat. Auth.: ORS Ch.

Hist.: DEQ 2-1984, f. & ef. 1-16-84

#### POST-CLOSURE REQUIREMENTS ~~[CARE OF LAND DISPOSAL SITES]~~

##### 340-94-130 [Renumbered from 340-61-043]

If a municipal solid waste landfill is subject to 40 CFR Part 258 as provided in 40 CFR §258.1, the owner or operator shall comply with post-closure care requirements in 40 CFR Part 258 Subpart F. All municipal solid waste permittees shall also comply with this rule.

- (1) Post-closure requirements:

- (a) Upon completion or closure of a landfill, a detailed description of the site including a plat should be filed with the appropriate county land recording authority by the permittee. The description should include the general types and location of wastes deposited, depth of ~~[fill]~~ waste and other information of probable interest to future land owners;
- (b) During the post-closure care period, the permittee must, at a minimum:
  - (A) Maintain the approved final contours and drainage system of the site;
  - (B) Consistent with final use, ensure that a healthy vegetative cover is established and maintained over the site;
  - (C) Operate and maintain each leachate and gas collection, removal and treatment system present at the ~~[disposal]~~ site;
  - (D) Operate and maintain each groundwater and surface water monitoring system present at the ~~[disposal]~~ site;
  - (E) Comply with all conditions of the closure permit issued by the Department.
- (2) Post-closure care period. Post-closure care must continue for ten years after the date of completion of closure of the land disposal site, unless otherwise approved or required by the Department according to ~~[OAR 340-61-028(6) and (7).]~~ OAR 340-94-100(7) and (8).

(Note: In addition to the requirements set forth in this rule, 40 CFR §258.61 requires municipal landfill owners and operators subject to 40 CFR Part 258 to conduct post-closure care for 30 years. Municipal solid waste landfill owners and operators are subject to the requirements of Federal law.)

Stat. Auth.: ORS Ch.

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## FINANCIAL ASSURANCE CRITERIA

### 340-94-140 [Renumbered from 340-61-034]

If a municipal solid waste landfill is subject to 40 CFR Part 258 as provided in 40 CFR §258.1, the owner or operator shall comply with financial assurance criteria in 40 CFR Part 258 Subpart G. All municipal solid waste permittees shall also comply with this rule.

- (1) Financial assurance plans required by 340-94-100(2)(b) shall include but not be limited to:
  - (a) A written estimate of the third-party costs of:
    - (A) Closing the municipal solid waste landfill; ~~[land disposal site;]~~
    - (B) Installing, operating and maintaining any environmental control system required on the landfill ~~[disposal]~~ site;

- (C) Monitoring and providing security for the landfill [~~land disposal~~] site; and
  - (D) Complying with any other requirement the Department may impose as a condition of renewing the permit.
- (b) A detailed description of the form of the financial assurance;
  - (c) A method and schedule for providing for or accumulating any required amount of funds which may be necessary to meet the financial assurance requirement;
  - (d) A proposal to the Department for disposing of any excess moneys received or interest earned on moneys received for financial assurance. To the extent practicable, the applicant's provisions for disposing of the excess moneys received or interest earned on moneys shall provide for:
    - (A) A reduction of the rates a person within the area served by the municipal solid waste landfill [~~land disposal site~~] is charged for solid waste collection service as defined by ORS 459.005; or
    - (B) Enhancing present or future solid waste disposal facilities within the area from which the excess moneys were received.
- (2) Amount of Financial Assurance Required. The amount of financial assurance required shall be established based upon the estimated closure and post-closure care costs included in the approved closure plan. This required amount may be adjusted as the plan is amended:
- (a) In reviewing the adequacy of the amount of financial assurance proposed by the applicant, the Department shall consider the following:
    - (A) Amount and type of solid waste deposited in the site;
    - (B) Amount and type of buffer from adjacent land and from drinking water sources;
    - (C) Amount, type, availability and cost of required cover;
    - (D) Seeding, grading, erosion control and surface water diversion required;
    - (E) Planned future use of the disposal site property;
    - (F) Type, duration of use, initial cost and maintenance cost of any active system necessary for controlling or stopping discharges;
    - (G) The portion of the site property closed before final closure of the entire site;
    - (H) Any other conditions imposed on the permit relating to closure or post-closure of the site;
    - (I) The financial capability of the applicant.
  - (b) After reviewing the proposed amount of financial assurance, the Department may either:



- (A) Approve the amount proposed by the applicant; or
  - (B) Disapprove the amount and require the applicant to submit a revised amount consistent with the factors considered by the Department.
- (3) Form of Financial Assurance. The financial assurance may be in any form proposed by the applicant if it is approved by the Department:
- (a) The Department will approve forms of financial assurance to cover the ongoing closure activities occurring while the municipal solid waste landfill [~~land disposal site~~] is still receiving solid waste where the applicant can prove to the satisfaction of the Department that all of the following conditions can be met:
    - (A) That financial assurance moneys in excess of the amount approved by the Department will not be set aside or collected by the disposal site operator. The Department may approve an additional amount of financial assurance during a review conducted in conjunction with a subsequent application to amend or renew the disposal site permit or a request by the owner or operator of a municipal solid waste landfill [~~disposal site~~] to extend the useful life of the landfill, [~~disposal site~~]. Nothing in this subsection shall prohibit a site operator from setting aside an additional reserve from funds other than those collected from rate payers specifically for closure and post-closure and such a reserve shall not be part of any fund or set aside required in the applicable financial assurance plan;
    - (B) That the use of financial assurance is restricted so that the financial resources can only be used to guarantee that the following activities will be performed or that the financial resources can only be used to finance the following activities and that the financial resources cannot be used for any other purpose:
      - (i) Close the municipal solid waste landfill [~~disposal site~~] according to the approved closure plan;
      - (ii) Install, operate and maintain any required environmental control systems;
      - (iii) Monitor and provide security for the landfill [~~disposal~~] site;
      - (iv) Comply with conditions of the closure permit.
    - (C) That, to the extent practicable, all excess moneys received and interest earned on moneys shall be disposed of in a manner which shall provide for:
      - (i) A reduction of the rates a person within the area served by the municipal solid waste landfill [~~land disposal site~~] is charged for solid waste collection service (as defined by ORS 459.005); or
      - (ii) Enhancing present or future solid waste disposal facilities within the area from which the excess moneys were received; or
      - (iii) Where the disposal site is operated and exclusively used to

dispose of solid waste generated by a single business entity, excess moneys and interest remaining in the financial assurance reserve shall be released to that business entity at the time that the permit is terminated.

- (b) If the permittee fails to adequately perform the ongoing closure activities in accordance with the closure plan and permit requirements, the permittee shall provide an additional amount of financial assurance in a form meeting the requirements of subsection (3)(c) of this rule within 30 days after service of a Final Order assessing a civil penalty. The total amount of financial assurance must be sufficient to cover all remaining closure and post-closure activities;
- (c) The Department will approve only the following forms of financial assurance for the final closure and post-closure activities which will occur after the municipal solid waste landfill [~~land disposal site~~] stops receiving solid waste:
  - (A) A closure trust fund established with an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency. The wording of the trust agreement must be acceptable to the Department. The purpose of the closure trust fund is to receive and manage any funds that may be paid by the permittee and to disburse those funds only for closure or post-closure maintenance activities which are authorized by the Department. Within 60 days after receiving itemized bills for closure activities, the Department will determine whether the closure expenditures are in accordance with the closure plan or otherwise justified and, if so, will send a written request to the trustee to make reimbursements;
  - (B) A surety bond guaranteeing payment into a closure trust fund issued by a surety company listed as acceptable in Circular 570 of the U.S. Department of the Treasury. The wording of the surety bond must be acceptable to the Department. A standby closure trust fund must also be established by the permittee. The purpose of the standby closure trust fund is to receive any funds that may be paid by the permittee or surety company. The bond must guarantee that the permittee will either fund the standby closure trust fund in an amount equal to the penal sum of the bond before the site stops receiving waste or within 15 days after an order to begin closure is issued by the Department or by a court of competent jurisdiction; or that the permittee will provide alternate financial assurance acceptable to the Department within 90 days after receipt of a notice of cancellation of the bond from the surety. The surety shall become liable on the bond obligation if the permittee fails to perform as guaranteed by the bond. The surety may not cancel the bond until at least 120 days after the notice of cancellation has been received by both the permittee and the Department. If the permittee has not provided alternate financial assurance acceptable to the Department within 90 days of the cancellation notice, the surety must pay the amount of the bond into the standby closure trust account;
  - (C) A surety bond guaranteeing performance of closure issued by a surety company listed as acceptable in Circular 570 of the U.S. Department of the Treasury. The wording of the surety bond must be acceptable to the Department. A standby closure trust fund must also be established by the

permittee. The purpose of the standby closure trust fund is to receive any funds that may be paid by the surety company. The bond must guarantee that the permittee will either perform final closure and post-closure maintenance or provide alternate financial assurance acceptable to the Department within 90 days after receipt of a notice of cancellation of the bond from the surety. The surety shall become liable on the bond obligation if the permittee fails to perform as guaranteed by the bond. The surety may not cancel the bond until at least 120 days after the notice of cancellation has been received by both the permittee and the Department. If the permittee has not provided alternate financial assurance acceptable to the Department within 90 days of the cancellation notice, the surety must pay the amount of the bond into the standby closure trust account;

(D) An irrevocable letter of credit issued by an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency. The wording of the letter of credit must be acceptable to the Department. A standby closure trust fund must also be established by the permittee. The purpose of the standby closure trust fund is to receive any funds deposited by the issuing institution resulting from a draw on the letter of credit. The letter of credit must be irrevocable and issued for a period of at least one year unless the issuing institution notifies both the permittee and the Department at least 120 days before the current expiration date. If the permittee fails to perform closure and post-closure activities according to the closure plan and permit requirements, or if the permittee fails to provide alternate financial assurance acceptable to the Department within 90 days after notification that the letter of credit will not be extended, the Department may draw on the letter of credit;

(E) A closure insurance policy issued by an insurer who is licensed to transact the business of insurance or is eligible as an excess or surplus lines insurer in one or more states. The wording of the certificate of insurance must be acceptable to the Department. The closure insurance policy must guarantee that funds will be available to complete final closure and post-closure maintenance of the site. The policy must also guarantee that the insurer will be responsible for paying out funds for reimbursement of closure and post-closure expenditures after notification by the Department that the expenditures are in accordance with the closure plan or otherwise justified. The policy must provide that the insurance is automatically renewable and that the insurer may not cancel, terminate or fail to renew the policy except for failure to pay the premium. If there is a failure to pay the premium, the insurer may not terminate the policy until at least 120 days after the notice of cancellation has been received by both the permittee and the Department. Termination of the policy may not occur and the policy must remain in full force and effect if: the Department determines that the land disposal site has been abandoned; or the Department has commenced a proceeding to modify the permit to require immediate closure; or closure has been ordered by the Department, Commission or a court of competent jurisdiction; or the permittee is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or the premium due is paid. The permittee is required to maintain the policy in full force and effect until the Department consents to termination of the policy when alternative financial assurance is provided or when the permit is terminated;

(F) A private corporation meeting the financial test may provide a corporate guarantee that closure and post-closure activities will be completed according to the closure plan and permit requirements. To qualify, a private corporation must meet the criteria of either subparagraphs (i) or (ii) of this paragraph:

(i) Financial Test. To pass the financial test, the permittee must have:

- (I) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; or a ratio of current assets to current liabilities greater than 1.5;
- (II) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates;
- (III) Tangible net worth of at least \$10 million; and
- (IV) Assets in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates.

(ii) Alternative Financial Test. To pass the alternative financial test, the permittee must have:

- (I) A current rating of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Bbb as issued by Moody's;
- (II) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates;
- (III) Tangible net worth of at least \$10 million; and
- (IV) Assets in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates.

(iii) The permittee shall demonstrate that it passes the financial test at the time the financial assurance plan is filed and reconfirm that annually 90 days after the end of the corporation's fiscal year by submitting the following items to the Department:

- (I) A letter signed by the permittee's chief financial officer that provides the information necessary to document that the permittee passes the financial test; that guarantees that the funds to finance closure and post-closure activities according to the closure plan and permit requirements are available; that guarantees that the closure and post-closure

activities will be completed according to the closure plan and permit requirements; that guarantees that the standby closure trust fund will be fully funded within 30 days after either service of a Final Order assessing a civil penalty from the Department for failure to adequately perform closure or post-closure activities according to the closure plan and permit, or service of a written notice from the Department that the permittee no longer meets the criteria of the financial test; that guarantees that the permittee's chief financial officer will notify the Department within 15 days any time that the permittee no longer meets the criteria of the financial test or is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; and that acknowledges that the corporate guarantee is a binding obligation on the corporation and that the chief financial officer has the authority to bind the corporation to the guarantee;

- (II) A copy of the independent certified public accountant's report on examination of the permittee's financial statements for the latest completed fiscal year;
- (III) A special report from the permittee's independent certified public accountant (CPA) stating that the CPA has compared the data which the letter from the permittee's chief financial officer specifies as having been derived from the independently audited year end financial statements for the latest fiscal year with the amounts in such financial statement, and that no matters came to the CPA's attention which caused the CPA to believe that the specified data should be adjusted;
- (IV) A trust agreement demonstrating that a standby closure trust fund has been established with an entity which has authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency. The wording of the trust agreement must be acceptable to the Department.

(iv) The Department may, based on a reasonable belief that the permittee no longer meets the criteria of the financial test, require reports of the financial condition at any time from the permittee in addition to the annual report. If the Department finds, on the basis of such reports or other information, that the permittee no longer meets the criteria of the financial test, the permittee shall fully fund the standby closure trust fund within 30 days after notification by the Department.

- (G) Alternative forms of financial assurance where the applicant can prove to the satisfaction of the Department that the level of security is equivalent to paragraphs (A) through (F) of this subsection and that the criteria of subsection (3)(a) of this rule are met.

- (4) Accumulation and use of any financial assurance funds:
- (a) The applicant shall set aside funds in the amount and frequency specified in the financial assurance plan approved by the Department. The total amount of financial assurance required shall be available in the form approved by the Department at the time that solid waste is no longer received at the site;
  - (b) The financial assurance plan shall contain adequate accounting procedures to insure that the disposal site operator does not collect or set aside funds in excess of the amount approved by the Department or use the funds for any purpose other than required by paragraph (3)(a)(B) of this rule;
  - (c) The permittee is subject to audit by the Department (or Secretary of State) and shall allow the Department access to all records during normal business hours for the purpose of determining compliance with this rule;
  - (d) If the Department determines that the permittee did not set aside the required amount of funds for financial assurance in the form and at the frequency required by the approved financial assurance plan, or if the Department determines that the financial assurance funds were used for any purpose other than as required in paragraph (3)(a)(B) of this rule, the permittee shall, within 30 days after notification by the Department, deposit a sufficient amount of financial assurance in the form required by the approved financial assurance plan along with an additional amount of financial assurance equal to the amount of interest that would have been earned, had the required amount of financial assurance been deposited on time or had it not been withdrawn for unauthorized use.

(Note: In addition to the requirements set forth in this rule, 40 CFR §258.61 requires municipal landfill owners and operators subject to 40 CFR Part 258 to maintain financial assurance for costs of closure, post-closure care and corrective action. The financial assurance costs must be adjusted annually to compensate for inflation. Municipal solid waste landfill owners and operators are subject to the requirements of Federal law.)

Stat. Auth.: ORS Ch.  
Hist.: DEQ 2-1984, f. & ef. 1-16-84

#### **FINANCIAL ASSURANCE CRITERIA: REGIONAL LANDFILLS**

##### **340-94-150 [Renumbered from 340-61-029]**

If a municipal solid waste landfill is subject to 40 CFR Part 258 as provided in 40 CFR §258.1, the owner or operator shall comply with financial assurance criteria in 40 CFR Part 258 Subpart G. All permittees of regional disposal sites shall also comply with this rule.

- (1) (a) Prior to first receiving waste, the applicant for a new regional disposal site [facility] shall submit to and have approved by the Department, a financial assurance plan. The applicant shall allow at least ninety (90) days for Department review of the submitted plan. For purposes of this rule "new regional disposal site" [facility] is a regional disposal site [facility] which has received no waste prior to January 1, 1988;

- (b) Regional disposal sites [~~facilities~~] existing on January 1, 1988 must submit to the Department a financial assurance plan with their application for renewal of the existing solid waste disposal permit at least three (3) months prior to permit expiration;
  - (c) The financial assurance plan must be in accordance with [~~OAR 340-61-034(1)(a), (b) and (c).~~] OAR 340-94-140(1)(a), (b) and (c).
- (2) The total amount of financial assurance to be provided shall be the greater of:
    - (a) The sum of closure and post-closure estimated costs as approved by the Department; or
    - (b) \$1,000,000.
  - (3)
    - (a) The Department will approve only forms of financial assurance which are listed in [~~OAR 340-61-034~~] OAR 340-94-140(3)(c) (A through G);
    - (b) If the financial assurance plan provides for accumulation of the total amount over a period of time, the time shall not exceed five (5) years from startup or renewal of the permit.
  - (4) The financial assurance plan must be evaluated by the applicant at least once each five (5) years or sooner if there is a significant change in the operational plan for the regional landfill. The applicant must provide to the Department financial assurance in an amount sufficient for the revised financial assurance plan.
  - (5) Financial assurance shall provide that the Department may use a portion or all of the financial assurance to cover study/repair and remedial action to address pollution of air or water off the landfill site provided that:
    - (a) The permittee has been properly notified of the problem requiring remedial action and given a time period based on the severity of the discharge for correction;
    - (b) The permittee fails to respond to the notice;
    - (c) It can be demonstrated that the permittee has exhausted other sources of revenue.
  - (6) If the Department requires use of the financial assurance for remedial action, the permittee shall submit a plan within three (3) months to re-establish the fund.
  - (7) If a financial assurance is provided under [~~OAR 340-61-034~~] OAR 340-94-140(3)(c)(A), (B) or (G) upon successful closure and release from permit requirements by the Department, any excess money in the financial assurance account must be used in a manner consistent with [~~OAR 340-61-034~~] OAR 340-94-140(3)(a)(C).
  - (8) The permittee is subject to audit by the Department and shall allow the Department access to all records relating to closure plan and other financial records if financial assurance consists of the requirements of [~~OAR 340-61-034~~] OAR 340-94-140(3)(c)(A), (B) or (G).

(Note: In addition to the requirements set forth in this rule, 40 CFR §258.61 requires municipal landfill owners and operators subject to 40 CFR Part 258 to maintain financial assurance for costs of

closure, post-closure care and corrective action. The financial assurance costs must be adjusted annually to compensate for inflation. Municipal solid waste landfill owners and operators are subject to the requirements of Federal law.)

Stat. Auth.: ORS Ch. 459.235(3)

Hist.: DEQ 18-1988, f. & cert. ef. 7-13-88 (and corrected 2-3-89); DEQ 32-1989(Temp), f. & cert. ef. 12-14-89; DEQ 16-1990, f. & cert. ef. 4-26-90 (and corrected 5-21-90)



**DIVISION 95**  
**SOLID WASTE: LAND DISPOSAL SITES**  
**OTHER THAN MUNICIPAL SOLID WASTE LANDFILLS**

**APPLICABILITY**

**340-95-001**

- (1) For purposes of this Division, "non-municipal land disposal site" means a land disposal site other than:
  - (a) A municipal solid waste landfill or a unit associated with the operation of such a landfill;
  - (b) A facility listed in OAR 340 Division 96.
- (2) OAR 340 Division 95 applies to all non-municipal land disposal sites. Non-municipal land disposal sites must also comply with applicable provisions in OAR 340 Divisions 93, 96 and 97.

**LOCATION RESTRICTIONS**

**340-95-010**

- (1) Except as otherwise provided in OAR 340-95, any person who designs, constructs, maintains, or operates any non-municipal land disposal site must do so in conformance with the location requirements of this rule.
- (2) [Renumbered from 340-61-040(7):] Endangered Species. No person shall establish, [operate,] expand or modify a [landfill] non-municipal land disposal site in a manner that will cause or contribute to the actual or attempted:
  - (a) Harassing, harming, pursuing, hunting, wounding, killing, trapping, capturing or collecting of any endangered or threatened species of plants, fish, or wildlife;
  - (b) Direct or indirect alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.
- (3) [Renumbered from 340-61-040(10):] Floodplains. No person shall establish, expand or modify a non-municipal land disposal site [permittee of a landfill located] in a floodplain [shall] in a manner that will allow the facility to restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.
- (4) Sensitive Hydrogeological Environments. No person shall establish or expand a non-municipal land disposal site in a gravel pit excavated into or above a water table aquifer or

other sole source aquifer, or in a designated wellhead protection area, where the Department has determined that:

- (a) Groundwater must be protected from pollution because it has existing or potential beneficial uses (OAR 340-40-020), and
- (b) Existing natural protection is insufficient or inadequate to minimize the risk of polluting groundwater.

## OPERATING CRITERIA

### 340-95-020

- (1) Except as otherwise provided in OAR 340-95, any person who maintains or operates any non-municipal land disposal site must do so in conformance with the operating requirements of this rule.
- (2) Permitted Wastes. Only the waste types listed in the solid waste permit or the operations plan, or wastes previously approved by the Department in writing, may be accepted for disposal. In certain cases the Department may also require approval of the source(s) of the waste. Written requests for authorization to accept additional waste types shall be submitted to and approved by the Department prior to disposal of such waste. Approval of requests for authorization for one-time disposal may be granted by the Department in writing. Requests for authorization for more than one-time disposal shall require a permit modification by the Department. Requests for authorization to accept additional waste types shall include the following information:
  - (a) Waste characterization with detailed physical and chemical characteristics of the waste type such as percent solids, results of the paint filter test, Toxicity Characteristic Leaching Procedure ("TCLP") results, polychlorinated biphenyl content, and test results for ignitability, reactivity, corrosivity, etc., as appropriate.
  - (b) The approximate volume of waste to be disposed of on a daily and yearly basis.
  - (c) The source of the wastes and a description of the processes which generated the waste.
  - (d) Special handling and disposal procedures, to be incorporated into the Special Waste Management Plan pursuant to subsection (3)(j) of this rule.
- (3) Operations Plan. Each permittee shall maintain a [Renumbered from 340-61-040(1)(d)] [(d)-A] detailed operations[~~a~~] plan [~~and timetable~~] which describes the proposed method of operation and progressive development of trenches and/or landfill lifts or cells. Said plan shall include at least the following:
  - (a) A[~~a~~] description of the types and quantities of waste materials that will be received (estimated maximum daily and average annual quantities);
  - (b) A program for detecting and preventing the disposal at the facility of regulated

hazardous wastes and polychlorinated biphenyl wastes and any other unacceptable wastes as determined by the Department.

- (c) M[~~m~~]ethods of waste unloading, placement, compaction and covering;
  - (d) A[~~a~~]reas and/or procedures to be used for disposal of waste materials during inclement weather;
  - (e) T[~~t~~]ypes and weights of equipment to be used for site operation;
  - (f) D[~~d~~]etailed description of any salvaging or resource recovery operations to take place at the facility;
  - (g) S[~~s~~]uch measures for the collection, containment, treatment or disposal of leachate as may be required;
  - (h) P[~~p~~]rovisions for managing surface drainage; [and]
  - (i) M[~~m~~]easures to be used for the control of fire, dust, decomposition gases, birds, disease vectors, scavenging, access, flooding, erosion, and blowing debris, as pertinent[~~-~~]; and
  - (j) [Renumbered from 340-61-040(17):] A Special Waste Management Plan if certain wastes are received, which due to their unique characteristics, require [S]special [H]handling. Such wastes may present personnel safety hazards, create odor and vector problems, generate excessive leachate, lead to excessive settlement, puncture or tear the landfill liner, pose a fire hazard, or increase the toxicity of landfill leachate. The Special Waste Management Plan shall describe special acceptance, waste characterization, handling, storage, recordkeeping and disposal procedures for those materials. Wastes requiring a special Waste Management Plan include:
    - (A) Cleanup materials contaminated with hazardous substances pursuant to OAR 340-93-170;
    - (B) Wastes requiring special management pursuant to OAR 340-93-190(1);
    - (C) Additional wastes authorized for disposal by the Department pursuant to section (2) of this rule; and
    - (D) Large dead animals, sewage sludges and grit, septage, [~~ie tank pumpings, hospital wastes~~] industrial solid wastes and other materials which may be hazardous or difficult to manage by virtue of their character or large volume, [~~shall not be deposited at a disposal site~~] unless special provisions for such disposal are [~~included in the operational plan or~~] otherwise approved by the Department.
- (4) [Renumbered from 340-61-040(2):] Open Burning. No person shall conduct the open burning of solid waste at a non-municipal land disposal site. [~~landfill, except in accordance with plans approved and permits issued by the Department prior to such burning.~~] The Department may authorize the infrequent [~~open~~] burning of land-clearing debris such as tree stumps and limbs, brush, timbers, lumber and other wood waste, except that open burning of industrial wood waste is prohibited.

(5) [Renumbered from 340-61-040(3):] Leachate. Any person ~~[designing,]~~ constructing, ~~[or]~~ operating or maintaining a ~~[landfill]~~ non-municipal land disposal site shall ensure that leachate production is minimized. Where required by the Department, leachate shall be collected and treated or otherwise controlled in a manner approved by the Department.

(6) [Renumbered from 340-61-040(5):] Surface Water:

- (a) No person shall cause a discharge of pollutants from a ~~[landfill]~~ non-municipal land disposal site into public waters including wetlands, in violation of any applicable state or federal water quality rules or regulations;
- (b) Each ~~[landfill]~~ non-municipal land disposal site permittee shall ensure that surface runoff and leachate seeps are controlled so as to minimize discharges of pollutants into public waters.

(7) [Renumbered from 340-61-040(9):] Surface Drainage Control. Each permittee shall ensure that:

- (a) The non-municipal land disposal site ~~[landfill]~~ is ~~[designed, constructed and]~~ maintained so that drainage will be diverted around or away from active and completed operational areas;
- (b) The surface contours of the ~~[landfill]~~ non-municipal land disposal site are maintained such that ponding of surface water is minimized.

(8) Endangered Species. No person shall operate a non-municipal land disposal site in a manner that will affect endangered species in any of the ways specified in OAR 340-95-010(2).

(9) Gas Control.

(a) No person shall operate or maintain a non-municipal land disposal site except in conformance with the provisions for gas control in 340-95-030(4).

(b) [Renumbered from 340-61-040(6):] Monitoring:

- (A) ~~[(a)]~~ Where the Department finds that a ~~[landfill's]~~ non-municipal land disposal site's location and geophysical condition indicate that there is a reasonable probability of potential adverse effects on public health or the environment, the Department may require a permittee to provide monitoring wells to determine the effects of the site ~~[landfill]~~ on ~~[groundwater and/or]~~ ~~or]~~ the concentration of methane gas in the soil;
- (B) ~~[(b)]~~ If the Department determines that monitoring wells are required at a ~~[landfill,]~~ non-municipal land disposal site, the permittee shall provide and maintain the wells at the locations specified by the Department and ~~[, at the Department's request,]~~ shall submit a copy of the ~~[well logs]~~ geologic log and record of well construction to the Department within thirty (30) days of completion of construction;
- (C) ~~[(c)]~~ Where the Department determines that self-monitoring is practicable, the Department may require that the permittee collect and analyze samples of ~~[surface water, groundwater and/or]~~ gas, at intervals specified and in a

manner approved by the Department, and submit the results in a format and within a time frame specified by the Department;

- (D) [(4)] The Department may require permittees who do self-monitoring to periodically split samples with the Department for the purpose of quality control.

- (10) [Renumbered from 340-61-040(10):] Floodplains. No permittee of a [~~landfill~~] non-municipal land disposal site located in a floodplain shall allow the facility to restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.
- (11) [Renumbered from 340-61-040(11):] Cover Material. Each permittee shall provide adequate quantities of cover material of a type approved by the Department for the covering of deposited solid waste at a [~~landfill~~] non-municipal land disposal site in accordance with the approved operations[~~a~~] plan, and permit conditions and these rules.
- (12) [Renumbered from 340-61-040(12):] Cover Frequency. Each permittee shall place a compacted layer of at least six inches of approved cover material over the compacted wastes in a [~~landfill~~] non-municipal land disposal site at intervals specified in the permit. An applicant may propose and the Department may approve alternative cover designs or procedures which are equally protective. In evaluating such a proposal for alternative cover design, procedures or frequency, [In setting a requirement for cover frequency,] the Department may consider such factors as the volume and types of waste received, hydrogeologic setting of the facility, climate, proximity of residences or other occupied buildings, site screening, availability of equipment and cover material, any past operational problems and any other relevant factor.
- (13) [Renumbered from 340-61-040(13):] Access Roads. Each permittee shall ensure that roads from the [~~landfill~~] non-municipal land disposal site property line to the active operational area and roads within the operational area are constructed and maintained so as to minimize traffic hazards, dust and mud and to provide reasonable all-weather access for vehicles using the site.
- (14) [Renumbered from 340-61-040(14):] Access Control. Each permittee shall insure that the non-municipal land disposal site [~~landfill~~] has a perimeter barrier or topographic constraints adequate to restrict unauthorized entry.
- (15) [Renumbered from 340-61-040(15):] Site Screening. To the extent practicable, each permittee shall screen the active non-municipal land disposal site [~~landfill~~] area from public view by trees, shrubbery, fence, stockpiled cover material, earthen berm, or other appropriate means.
- (16) [Renumbered from 340-61-040(16):] Fire Protection:
- (a) Each [~~landfill~~] non-municipal land disposal site permittee shall make arrangements with the local fire control agency to immediately acquire their services when needed and shall provide adequate on-site fire protection as determined by the local fire control agency;
- (b) In case of accidental fires at the site, the operator shall be responsible for initiating and continuing appropriate fire-fighting methods until all smoldering, smoking and burning ceases;

- (c) No operator shall permit the dumping of combustible materials within the immediate vicinity of any smoldering, smoking or burning conditions at a [~~landfill,~~] non-municipal land disposal site, or allow dumping activities to interfere with fire-fighting efforts.

~~[(17) Special Handling. Large dead animals, sewage sludges, septic tank pumpings, hospital wastes and other materials which may be hazardous or difficult to manage, shall not be deposited at a disposal site unless special provisions for such disposal are included in the operational plan or otherwise approved by the Department.]~~

(17) [Renumbered from 340-61-040(18):] Signs. Each permittee of a [~~landfill~~] land disposal site open to the public shall post a clearly visible and legible sign or signs at the entrance to the disposal site specifying the name of the facility, the hours and days the site is open to the public, an emergency phone number and listing the general types of materials which either will be accepted or will not be accepted.

(18) [Renumbered from 340-61-040(19):] Truck Washing Facilities. Each permittee shall ensure that any truck washing areas at a [~~landfill~~] non-municipal land disposal site are hard surfaced and that any on-site disposal of wash waters is accomplished in a manner approved by the Department.

(19) [Renumbered from 340-61-040(20):] Sewage Disposal. Each [~~landfill~~] non-municipal land disposal site permittee shall ensure that any on-site disposal of sewage is accomplished in a manner approved by the Department.

(20) [Renumbered from 450-61-040(21):] Salvage: [~~(a)~~] A permittee may conduct or allow the recovery of materials such as metal, paper and glass from the [~~landfill~~] non-municipal land disposal site only when such recovery is conducted in a planned and controlled manner approved by the Department[;] in the facility's operations plan.

~~[(b) No person may salvage food products, hazardous materials or furniture and bedding with concealed filling from a landfill.]~~

(21) [Renumbered from 340-61-040(22):] Litter:

(a) Each permittee shall ensure that effective measures such as compaction, the periodic application of cover material or the use of portable fencing or other devices are taken to minimize the blowing of litter from the active working area of the non-municipal land disposal site; [~~landfill~~];

(b) Each non-municipal land disposal site [~~landfill~~] operator shall collect windblown materials from the disposal site and adjacent property and properly dispose of same at sufficient frequency to prevent aesthetically objectionable accumulations.

(22) [Renumbered from 340-61-040(23):] Vector and Bird Control:

(a) Each permittee shall ensure that effective means such as the periodic application of earth cover material or other techniques as appropriate are taken at the non-municipal land disposal site [~~landfill~~] to control or prevent the propagation, harborage, or attraction of flies, rodents, or other vectors and to minimize bird attraction;

(b) No permittee of a non-municipal land disposal site [~~landfill~~] disposing of putrescible

wastes that may attract birds and which is located within 10,000 feet (3,048 meters) of any airport runway used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport used by only piston-type aircraft shall allow the operation of the landfill to increase the likelihood of bird/aircraft collisions.

- (23) [Renumbered from 340-61-040(24):] Weighing. The Department may require that non-municipal land disposal site [~~landfill~~] permittees provide scales and weigh incoming loads of solid waste, to facilitate solid waste management planning and decision making.
- (24) [Renumbered from 340-61-040(25):] Records. The Department may require records and reports it considers reasonably necessary to ensure compliance with conditions of a permit, [~~of~~] these rules[-] or provisions of OAR 340 Divisions 90 and 91. All records must be kept for a minimum of five years.

## DESIGN CRITERIA

340-95-030

- (1) Except as otherwise provided in OAR 340 Division 95, any person who designs, constructs, expands or modifies any non-municipal land disposal site must do so in conformance with the design requirements of this rule.
- (2) [Renumbered from 450-61-040(1):] Plan Design Requirements. Unless an exemption has been granted under [~~OAR 340-61-025(4),~~] OAR 340-93-070(4), in addition to the requirements of [~~OAR 340-61-025,~~] OAR 450-93-070, detailed plans and specifications for non-municipal land disposal sites [~~landfills~~] shall include but not be limited to:
  - (a) Topographic maps which show natural features of the site; the location and design of all pertinent existing and proposed structures, such as berms, dikes, surface drainage control devices, access and on-site roads, water and waste water facilities, gas control devices, monitoring wells, fences, utilities, maintenance facilities, shelter and buildings; legal boundaries and property lines, and existing contours and projected finish grades. Unless otherwise approved by the Department, the scale of the plan drawings shall be no greater than one inch equals 200 feet, with contour intervals not to exceed five feet. Horizontal and vertical controls shall be established and tied to an established bench mark located on or near the site. Where the Department deems it essential to ensure compliance with these rules, The bench mark shall be referenced to the Oregon State Plane Co-ordinate System, Lambert Projection;
  - (b) If a landfill, a [~~A~~] minimum of two perpendicular cross section drawings through the non-municipal land disposal site. [~~landfill.~~] Each cross section shall illustrate existing grade, excavation grade, proposed final grade, any additions for groundwater protection, water table profile and soil profile. Additional cross sections shall be provided as necessary to adequately depict underlying soils, geology and landfill contours, and to display the design of environmental protection devices or structures;
  - (c) A description of the design assumptions and methods used to forecast flows and to determine the sizing of pumps, pipes, ditches, culverts and other hydraulic equipment used for the collection, treatment and disposal of leachate and for the control of surface drainage;
  - (d) A detailed operations[~~al~~] plan pursuant to OAR 340-95-020(3) and timetable which describes the proposed method of operation and progressive development of the non-municipal land disposal site, such as trenches and/or landfill lifts or cells. [~~Said plan shall include a description of the types and quantities of waste materials that will be received (estimated maximum daily and average annual quantities); methods of waste unloading, placement, compaction and covering; areas and/or procedures to be used for disposal of waste materials during inclement weather; types and weights of equipment to be used for site operation; detailed description of any salvaging or resource recovery operations to take place at the facility; such measures for the collection, containment, treatment or disposal of leachate as may be required; provisions for managing surface drainage; and measures to be used for the control of fire, dust, decomposition gases, birds, disease vectors, scavenging, access, flooding, erosion, and blowing debris, as pertinent.]~~]
- (3) [Renumbered from 340-61-040(3):] Leachate. Any person designing[~~g~~] or constructing[~~g~~,~~or~~



~~operating a landfill~~ a non-municipal land disposal site shall ensure that leachate production is minimized. Where required by the Department, leachate shall be collected and treated or otherwise controlled in a manner approved by the Department. Leachate storage treatment impoundments shall be located, designed, constructed and monitored, at a minimum, to the same level of environmental protection as the land disposal site.

- (4) [Renumbered from 340-61-040(8):] Gas Control. No person shall establish, ~~operate,~~ expand or modify a non-municipal land disposal site ~~[landfill]~~ such that:
- (a) The concentration of methane (CH<sub>4</sub>) gas at the landfill exceeds twenty-five (25) percent of its lower explosive limit in facility structures (excluding gas control or gas recovery system components) or its lower explosive limit at the property boundary;
  - (b) Malodorous decomposition gases become a public nuisance.
- (5) [Renumbered from 340-61-040(5):] Surface Drainage Control. Each permittee shall ensure that[~~;~~]
- ~~[(a) The landfill] the non-municipal land disposal site is designed[,]~~ and constructed ~~[and maintained]~~ so that drainage will be diverted around or away from active and completed operational areas.~~[;]~~
  - ~~[(b) The surface contours of the landfill are maintained such that ponding of surface water is minimized.]~~
- (6) [Renumbered from 340-61-040(4)(a)] Groundwater Protection. Each non-municipal land disposal site ~~[landfill]~~ permittee shall ensure that:
- (a) The introduction of any substance from the non-municipal land disposal site ~~[landfill]~~ into an underground drinking water source does not result in a violation of any applicable federal or state drinking water rules or regulations beyond the solid waste boundary of the landfill or an alternative boundary specified by the Department;
  - (b) The introduction of any substance from the non-municipal land disposal site ~~[landfill]~~ into an aquifer does not impair the aquifer's recognized beneficial uses, beyond the solid waste boundary of the landfill or an alternative boundary specified by the Department, consistent with OAR 340 Division 40 ~~[the Commission's adopted Groundwater Quality Protection Policy]~~ and any applicable federal or state rules or regulations.

## GROUNDWATER MONITORING AND CORRECTIVE ACTION

### 340-95-040

- (1) [Renumbered from 340-61-040(4):] Groundwater:
- (a) Each non-municipal land disposal site ~~[landfill]~~ permittee shall ensure that:
    - (A) The introduction of any substance from the land disposal site ~~[landfill]~~ into an underground drinking water source does not result in a violation of any

applicable federal or state drinking water rules or regulations beyond the solid waste boundary of the land disposal site [landfill] or an alternative boundary specified by the Department;

(B) The introduction of any substance from the land disposal site [landfill] into an aquifer does not impair the aquifer's recognized beneficial uses, beyond the solid waste boundary of the land disposal site [landfill] or an alternative boundary specified by the Department, consistent with ~~the Commission's adopted Groundwater Quality Protection Policy~~ OAR 340 Division 40 and any applicable federal or state rules or regulations.

(b) Where monitoring is required, monitoring wells shall be placed at Department-approved locations between the solid waste boundary and the property line if adequate room exists;

(c) The Department may specify an alternative boundary based on a consideration of all of the following factors:

(A) The hydrogeological characteristics of the facility and surrounding land;

(B) The volume and physical and chemical characteristics of the leachate;

(C) The quantity and directions of flow of groundwater;

(D) The proximity and withdrawal rates of groundwater users;

(E) The availability of alternative drinking water supplies;

(F) The existing quality of the groundwater including other sources of contamination and their cumulative impacts on the groundwater; and

(G) Public health, safety, and welfare effects.

(2) [Renumbered from 340-61-040(6):] Monitoring:

(a) Where the Department finds that a non-municipal land disposal site's [landfill's] location and geophysical condition indicate that there is a reasonable probability of potential adverse effects on public health or the environment, the Department may require a permittee to provide monitoring wells at Department-approved locations and depths to determine the effects of the non-municipal land disposal site [landfill] on groundwater ~~[and/or on the concentration of methane gas in the soil]~~;

(b) If the Department determines that monitoring wells are required at a non-municipal land disposal site, [landfill,] the permittee shall provide and maintain the wells at the locations specified by the Department and ~~[, at the Department's request,]~~ shall submit a copy of the geologic log and record of well construction [well logs] to the Department within thirty (30) days of completion of construction;

(c) Where the Department determines that self-monitoring is practicable, the Department may require that the permittee collect and analyze samples of surface water~~[,]~~ and/or groundwater ~~[and/or gas]~~, at intervals specified and in a manner approved by the Department, and submit the results in a format and within a time frame specified by the Department;

- (d) The Department may require permittees who do self-monitoring to periodically split samples with the Department for the purpose of quality control.

**CLOSURE AND POST-CLOSURE CARE: CLOSURE PERMITS**

**340-95-050 [Renumbered from 340-61-028; incorporates part of 340-61-020]**

**(1) [Renumbered from 340-61-020(7):] Closure Permit:**

- (a) At least five years prior to anticipated closure of a non-municipal land disposal site, the person holding the disposal site permit shall apply to renew the permit to cover the period of time remaining for site operations, closure of the site, and all or part of the time that active post-closure site maintenance is required by the Department;
- (b) The person who holds or last held the non-municipal land disposal site permit, or, if that person fails to comply, then the person owning or controlling a non-municipal land disposal site that is closed and no longer receiving solid waste after January 1, 1980, must continue or renew the disposal site permit after the site is closed for the duration of the period in which the Department continues to actively supervise the site, even though solid waste is no longer received at the site.

**(2) [(+) Applications for closure permits must include but are not limited to:**

- (a) A closure plan prepared in accordance with [~~OAR 340-61-033~~]; OAR 340-95-060;
- (b) A financial assurance plan prepared in accordance with [~~OAR 340-61-034~~] OAR 340-95-090 unless exempted by the Department pursuant to section (3) [(2)] of this rule;
- (c) If the permittee does not own and control the property, the permittee shall demonstrate to the Department that the permittee has access to the non-municipal land disposal site property after closure to monitor and maintain the site and operate any environmental control facilities;
- (d) If any person other than the permittee assumes any responsibility for any closure or post-closure activities, that responsibility shall be evidenced by a written contract between the permittee and each person assuming any responsibility.

**(3) [(2)] The Department may exempt from the financial assurance requirements any non-municipal land disposal site including but not limited to [~~domestic waste sites,~~] demolition waste sites[-] and industrial waste sites. To be eligible for this exemption, the applicant shall demonstrate to the satisfaction of the Department that the site meets all of the following criteria and that the site is likely to continue to meet all of these criteria until the site is closed in a manner approved by the Department:**

- (a) The non-municipal land disposal site poses no significant threat of adverse impact on groundwater or surface water;
- (b) The non-municipal land disposal site poses no significant threat of adverse impact on public health or safety;

- (c) No system requiring active operation and maintenance is necessary for controlling or stopping discharges to the environment;
  - (d) The area of the non-municipal land disposal site that has been used for waste disposal and has not yet been properly closed in a manner acceptable to the Department is less than and remains less than two acres or complies with a closure schedule approved by the Department.
- (4) [~~3~~] In determining if the applicant has demonstrated that a non-municipal land disposal site meets the financial assurance exemption criteria, the Department will consider existing available information including, but not limited to, geology, soils, hydrology, waste type and volume, proximity to and uses of adjacent properties, history of site operation and construction, previous compliance inspection reports, existing monitoring data, the proposed method of closure and the information submitted by the applicant. The Department may request additional information if needed.
  - (5) [~~4~~] An exemption from the financial assurance requirement granted by the Department will remain valid only so long as the non-municipal land disposal site continues to meet the exemption criteria in section (3) [~~2~~] of this rule. If the site fails to continue to meet the exemption criteria, the Department may modify the closure permit to require financial assurance.
  - (6) [~~5~~] While a closure permit is in effect, the permittee shall submit a report to the Department within 90 days of the end of the permittee's fiscal year or as otherwise required in writing by the Department, which contains but is not limited to:
    - (a) An evaluation of the approved closure plan discussing current status, unanticipated occurrences, revised closure date projections, necessary changes, etc.;
    - (b) An evaluation of the approved financial assurance plan documenting an accounting of amounts deposited and expenses drawn from the fund, as well as its current balance. This evaluation must also assess the adequacy of the financial assurance and justify any requests for changes in the approved plan;
    - (c) Other information requested by the Department to determine compliance with the rules of the Department.
  - (7) [~~6~~] The Department shall terminate closure permits for non-municipal land disposal sites not later than ten years after the site is closed unless the Department finds there is a need to protect against a significant hazard or risk to public health or safety or the environment.
  - (8) [~~7~~] Any time after a non-municipal land disposal site is closed, the permit holder may apply for a termination of the permit, a release from one or more of the permit requirements or termination of any applicable permit fee. Before the Department grants a termination or release under this section, the permittee must demonstrate and the Department must find that there is no longer a need for:
    - (a) Active supervision of the site;
    - (b) Maintenance of the site; or
    - (c) Maintenance or operation of any system or facility on the site.

- (9) [(8)] The Department or an authorized governmental agency may enter a non-municipal land disposal site property at reasonable times to inspect and monitor the site as authorized by ORS 459.285.
- (10) [(9)] The closure permit remains in effect and is a binding obligation of the permittee until the Department terminates the permit according to sections (7) or (8) [(6) or (7)] of this rule or upon issuance of a new closure permit for the site to another person following receipt of a complete and acceptable application.

Stat. Auth.: ORS Ch.  
Hist.: DEQ 2-1984, f. & ef. 1-16-84

### CLOSURE AND POST-CLOSURE CARE: CLOSURE PLANS

#### 340-95-060 [Renumbered from 340-61-033]

- (1) A closure plan must specify the procedures necessary to completely close the non-municipal land disposal site at the end of its intended operating life. The plan must also identify the post-closure activities which will be carried on [~~after-closure~~] to properly monitor and maintain the [~~completed~~] closed non-municipal land disposal site. At a minimum, the plan shall include:
- (a) Detailed plans and specifications consistent with the applicable requirements of OAR 340-93-140 and 340-95-030(2), [~~OAR 340-61-035 and 340-61-040(1)~~], unless an exemption is granted as provided in [~~OAR 340-61-025(4)~~]; OAR 340-93-070(4); NOTE: If some of this information has been previously submitted, the permittee shall review and update it to reflect current conditions and any proposed changes in closure or post-closure activities.
  - (b) A description of how and when the non-municipal land disposal site [~~facility~~] will be closed. If a landfill, [~~T~~]the description shall, to the extent practicable, show how the [~~disposal site~~] landfill will be closed as filling progresses to minimize the area remaining to be closed at the time that the site stops receiving waste. A time schedule for completion of closure shall be included;
  - (c) Details of how leachate discharges will be minimized and controlled and treated if necessary;
  - (d) Details of any [~~landfill~~] non-municipal land disposal site gas control facilities, their operation and frequency of monitoring;
  - (e) Details of final closure. If a landfill, the cover including soil texture, depth and slope;
  - (f) Details of surface water drainage diversion;
  - (g) A schedule of monitoring the site after closure;
  - (h) A projected frequency of anticipated inspection and maintenance activities at the site after closure, including but not limited to repairing, recovering and regrading settlement areas, cleaning out surface water diversion ditches, and re-establishing

vegetation;

- (i) Other information requested by the Department necessary to determine whether the non-municipal land disposal site will comply with all applicable rules of the Department.
- (2) Approval of Closure Plan. After approval by the Department, the permittee shall implement the closure plan within the approved time schedule.
- (3) Amendment of Plan. The approved closure plan may be amended at any time during the active life of the ~~[landfill]~~ non-municipal land disposal site or during the post-closure care period as follows:
  - (a) The permittee must amend the plan whenever changes in operating plans or facility design, or changes in these rules, or events which occur during the active life of the landfill or during the post-closure care period, significantly affect the plan. The permittee must also amend the plan whenever there is a change in the expected year of closure. The permittee must submit the necessary plan amendments to the Department for approval within 60 days after such changes or as otherwise required by the Department;
  - (b) The permittee may request to amend the plan to alter the closure requirements, to alter the post-closure care requirements, or to extend or reduce the post-closure care period based on cause. The request must include evidence demonstrating to the satisfaction of the Department that:
    - (A) The nature of the ~~[landfill]~~ non-municipal land disposal site makes the closure or post-closure care requirements unnecessary; or
    - (B) The nature of the ~~[landfill]~~ non-municipal land disposal site supports reduction of the post-closure care period; or
    - (C) The requested extension in the post-closure care period or alteration of closure or post-closure care requirements is necessary to prevent threat of adverse impact on public health, safety or the environment.
  - (c) The Department may amend a permit to require the permittee to modify the plan if it is necessary to prevent the threat of adverse impact on public health, safety or the environment. Also, the Department may extend or reduce the post-closure care period or alter the closure or post-closure care requirements based on cause.

Stat. Auth.: ORS Ch.

Hist.: DEQ 2-1984, f. & ef. 1-16-84

#### CLOSURE REQUIREMENTS [OF LAND DISPOSAL SITES]

340-95-070 [Renumbered from 340-61-042]

- (1) When solid waste is no longer received at a non-municipal land disposal site, the person who

holds or last held the permit issued under ORS 459.205 or, if the person who holds or last held the permit fails to comply with this section, the person owning or controlling the property on which the disposal site is located, shall close and maintain the site according to the requirements of ORS Chapter 459, all applicable rules adopted by the Commission under ORS 459.045 and all requirements imposed by the Department as a condition to renewing or issuing a non-municipal land disposal site permit.

- (2) Unless otherwise approved or required in writing by the Department, no person shall permanently close or abandon a non-municipal land disposal site, except in the following manner:
- (a) All ~~[filled]~~ areas containing solid waste not already closed in a manner approved by the Department shall be covered with at least three (3) feet of compacted soil of a type approved by the Department graded to a minimum two (2) percent and maximum thirty (30) percent slope unless the Department authorizes a lesser depth or an alternative final cover design. ~~[a different kind of cover material.]~~ In applying this standard, the Department will consider the potential for adverse impact from the disposal site on public health, safety or the environment, and the ability for the permittee to generate the funds necessary to comply with this standard before the disposal site closes. A permittee may request that the Department approve a lesser depth of cover material or an alternative final cover design based on the type of waste, climate, geological setting, degree of environmental impact. ~~[For those land disposal sites existing on January 1, 1984 which will close, or the parts of those sites which will close, prior to January 1, 1989, only a minimum of two feet of approved soil will be required unless the Department finds that additional cover material is necessary to minimize environmental impacts from the site;]~~
  - (b) Final cover material shall be applied to each portion of a landfill ~~[disposal site]~~ within sixty (60) days after said portion reaches approved maximum fill elevation, except in the event of inclement weather, in which case final cover shall be applied as soon as practicable;
  - (c) The finished surface of the ~~[filled]~~ closed areas shall consist of soils of a type or types consistent with the planned future use and approved by the Department. Unless otherwise approved by the Department, a vegetative cover of native grasses shall be promptly established over the finished surface of the ~~[disposal]~~ closed site;
  - (d) All surface water must be diverted around the area of the non-municipal land disposal site used for waste disposal or in some other way prevented from contacting the waste material;
  - (e) All systems required by the Department to control or contain discharges to the environment must be completed and operational.
- (3) Closure of non-municipal land disposal sites shall be in accordance with detailed plans approved in writing by the Department pursuant to OAR 340-95-060, ~~[340-61-033.]~~
- (4) Closure approval:
- (a) When closure is completed, the permittee shall submit a written request to the Department for approval of the closure;

- (b) Within thirty days of receipt of a written request for closure approval, the Department shall inspect the facility to verify that closure has been effected in accordance with the approved closure plan and the provisions of these rules;
- (c) If the Department determines that closure has been properly completed, the Department shall approve the closure in writing. Closure shall not be considered complete until such approval has been made. The date of approval notice shall be the date of commencement of the post-closure period.

Stat. Auth.: ORS Ch.  
 Hist.: DEQ 2-1984, f. & ef. 1-16-84

POST-CLOSURE REQUIREMENTS [~~CARE OF LAND DISPOSAL SITES~~]

340-95-080 [Renumbered from 340-61-043]

- (1) Post-closure requirements:
  - (a) Upon completion or closure of any non-municipal land disposal site where waste remains on-site, [~~landfill~~], a detailed description of the site including a plat should be filed with the appropriate county land recording authority by the permittee. The description should include the general types and location of wastes deposited, depth of [~~fill~~] waste and other information of probable interest to future land owners;
  - (b) During the post-closure care period, the permittee must, at a minimum:
    - (A) Maintain the approved final contours and drainage system of the site;
    - (B) Consistent with final use, ensure that a healthy vegetative cover is established and maintained over the site;
    - (C) Operate and maintain each leachate and gas collection, removal and treatment system present at the [~~disposal~~] site;
    - (D) Operate and maintain each groundwater and surface water monitoring system present at the [~~disposal~~] site;
    - (E) Comply with all conditions of the closure permit issued by the Department.
- (2) Post-closure care period. Post-closure care must continue for ten years after the date of completion of closure of [~~the~~] any non-municipal land disposal site where waste remains on-site, unless otherwise approved or required by the Department according to [~~OAR 340-61-028(6) and (7).~~] OAR 340-95-050(7) and (8).

Stat. Auth.: ORS Ch.  
 Hist.: DEQ 2-1984, f. & ef. 1-16-84



## FINANCIAL ASSURANCE CRITERIA

340-95-090 [Renumbered from 340-61-034]

- (1) Financial assurance plans required by 340-95-050(2)(b) shall include but not be limited to:
  - (a) A written estimate of the third-party costs of:
    - (A) Closing the non-municipal land disposal site;
    - (B) Installing, operating and maintaining any environmental control system required on the non-municipal land disposal site;
    - (C) Monitoring and providing security for the non-municipal land disposal site; and
    - (D) Complying with any other requirement the Department may impose as a condition of renewing the permit.
  - (b) A detailed description of the form of the financial assurance;
  - (c) A method and schedule for providing for or accumulating any required amount of funds which may be necessary to meet the financial assurance requirement;
  - (d) A proposal to the Department for disposing of any excess moneys received or interest earned on moneys received for financial assurance. To the extent practicable, the applicant's provisions for disposing of the excess moneys received or interest earned on moneys shall provide for:
    - (A) A reduction of the rates a person within the area served by the non-municipal land disposal site is charged for solid waste collection service as defined by ORS 459.005; or
    - (B) Enhancing present or future solid waste disposal facilities within the area from which the excess moneys were received.
- (2) Amount of Financial Assurance Required. The amount of financial assurance required shall be established based upon the estimated closure and post-closure care costs included in the approved closure plan. This required amount may be adjusted as the plan is amended:
  - (a) In reviewing the adequacy of the amount of financial assurance proposed by the applicant, the Department shall consider the following:
    - (A) Amount and type of solid waste deposited in the site;
    - (B) Amount and type of buffer from adjacent land and from drinking water sources;
    - (C) Amount, type, availability and cost of required cover;
    - (D) Seeding, grading, erosion control and surface water diversion required;

- (E) Planned future use of the disposal site property;
  - (F) Type, duration of use, initial cost and maintenance cost of any active system necessary for controlling or stopping discharges;
  - (G) The portion of the site property closed before final closure of the entire site;
  - (H) Any other conditions imposed on the permit relating to closure or post-closure of the site;
  - (I) The financial capability of the applicant.
- (b) After reviewing the proposed amount of financial assurance, the Department may either:
- (A) Approve the amount proposed by the applicant; or
  - (B) Disapprove the amount and require the applicant to submit a revised amount consistent with the factors considered by the Department.
- (3) Form of Financial Assurance. The financial assurance may be in any form proposed by the applicant if it is approved by the Department:
- (a) The Department will approve forms of financial assurance to cover the ongoing closure activities occurring while the non-municipal land disposal site is still receiving solid waste where the applicant can prove to the satisfaction of the Department that all of the following conditions can be met:
    - (A) That financial assurance moneys in excess of the amount approved by the Department will not be set aside or collected by the disposal site operator. The Department may approve an additional amount of financial assurance during a review conducted in conjunction with a subsequent application to amend or renew the non-municipal land disposal site permit or a request by the owner or operator of a disposal site to extend the useful life of the [disposal] site. Nothing in this subsection shall prohibit a site operator from setting aside an additional reserve from funds other than those collected from rate payers specifically for closure and post-closure and such a reserve shall not be part of any fund or set aside required in the applicable financial assurance plan;
    - (B) That the use of financial assurance is restricted so that the financial resources can only be used to guarantee that the following activities will be performed or that the financial resources can only be used to finance the following activities and that the financial resources cannot be used for any other purpose:
      - (i) Close the non-municipal land disposal site according to the approved closure plan;
      - (ii) Install, operate and maintain any required environmental control systems;

- (iii) Monitor and provide security for the non-municipal land disposal site;
  - (iv) Comply with conditions of the closure permit.
- (C) That, to the extent practicable, all excess moneys received and interest earned on moneys shall be disposed of in a manner which shall provide for:
- (i) A reduction of the rates a person within the area served by the non-municipal land disposal site is charged for solid waste collection service (as defined by ORS 459.005); or
  - (ii) Enhancing present or future solid waste disposal facilities within the area from which the excess moneys were received; or
  - (iii) Where the non-municipal land disposal site is operated and exclusively used to dispose of solid waste generated by a single business entity, excess moneys and interest remaining in the financial assurance reserve shall be released to that business entity at the time that the permit is terminated.
- (b) If the permittee fails to adequately perform the ongoing closure activities in accordance with the closure plan and permit requirements, the permittee shall provide an additional amount of financial assurance in a form meeting the requirements of subsection (3)(c) of this rule within 30 days after service of a Final Order assessing a civil penalty. The total amount of financial assurance must be sufficient to cover all remaining closure and post-closure activities;
- (c) The Department will approve only the following forms of financial assurance for the final closure and post-closure activities which will occur after the non-municipal land disposal site stops receiving solid waste:
- (A) A closure trust fund established with an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency. The wording of the trust agreement must be acceptable to the Department. The purpose of the closure trust fund is to receive and manage any funds that may be paid by the permittee and to disburse those funds only for closure or post-closure maintenance activities which are authorized by the Department. Within 60 days after receiving itemized bills for closure activities, the Department will determine whether the closure expenditures are in accordance with the closure plan or otherwise justified and, if so, will send a written request to the trustee to make reimbursements;
  - (B) A surety bond guaranteeing payment into a closure trust fund issued by a surety company listed as acceptable in Circular 570 of the U.S. Department of the Treasury. The wording of the surety bond must be acceptable to the Department. A standby closure trust fund must also be established by the permittee. The purpose of the standby closure trust fund is to receive any funds that may be paid by the permittee or surety company. The bond must guarantee that the permittee will either fund the standby closure trust fund in an amount equal to the penal sum of the bond before the site stops receiving

waste or within 15 days after an order to begin closure is issued by the Department or by a court of competent jurisdiction; or that the permittee will provide alternate financial assurance acceptable to the Department within 90 days after receipt of a notice of cancellation of the bond from the surety. The surety shall become liable on the bond obligation if the permittee fails to perform as guaranteed by the bond. The surety may not cancel the bond until at least 120 days after the notice of cancellation has been received by both the permittee and the Department. If the permittee has not provided alternate financial assurance acceptable to the Department within 90 days of the cancellation notice, the surety must pay the amount of the bond into the standby closure trust account;

- (C) A surety bond guaranteeing performance of closure issued by a surety company listed as acceptable in Circular 570 of the U.S. Department of the Treasury. The wording of the surety bond must be acceptable to the Department. A standby closure trust fund must also be established by the permittee. The purpose of the standby closure trust fund is to receive any funds that may be paid by the surety company. The bond must guarantee that the permittee will either perform final closure and post-closure maintenance or provide alternate financial assurance acceptable to the Department within 90 days after receipt of a notice of cancellation of the bond from the surety. The surety shall become liable on the bond obligation if the permittee fails to perform as guaranteed by the bond. The surety may not cancel the bond until at least 120 days after the notice of cancellation has been received by both the permittee and the Department. If the permittee has not provided alternate financial assurance acceptable to the Department within 90 days of the cancellation notice, the surety must pay the amount of the bond into the standby closure trust account;
- (D) An irrevocable letter of credit issued by an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency. The wording of the letter of credit must be acceptable to the Department. A standby closure trust fund must also be established by the permittee. The purpose of the standby closure trust fund is to receive any funds deposited by the issuing institution resulting from a draw on the letter of credit. The letter of credit must be irrevocable and issued for a period of at least one year unless the issuing institution notifies both the permittee and the Department at least 120 days before the current expiration date. If the permittee fails to perform closure and post-closure activities according to the closure plan and permit requirements, or if the permittee fails to provide alternate financial assurance acceptable to the Department within 90 days after notification that the letter of credit will not be extended, the Department may draw on the letter of credit;
- (E) A closure insurance policy issued by an insurer who is licensed to transact the business of insurance or is eligible as an excess or surplus lines insurer in one or more states. The wording of the certificate of insurance must be acceptable to the Department. The closure insurance policy must guarantee that funds will be available to complete final closure and post-closure maintenance of the site. The policy must also guarantee that the insurer will be responsible for paying out funds for reimbursement of closure and post-closure expenditures after notification by the Department that the

expenditures are in accordance with the closure plan or otherwise justified. The policy must provide that the insurance is automatically renewable and that the insurer may not cancel, terminate or fail to renew the policy except for failure to pay the premium. If there is a failure to pay the premium, the insurer may not terminate the policy until at least 120 days after the notice of cancellation has been received by both the permittee and the Department. Termination of the policy may not occur and the policy must remain in full force and effect if: the Department determines that the land disposal site has been abandoned; or the Department has commenced a proceeding to modify the permit to require immediate closure; or closure has been ordered by the Department, Commission or a court of competent jurisdiction; or the permittee is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or the premium due is paid. The permittee is required to maintain the policy in full force and effect until the Department consents to termination of the policy when alternative financial assurance is provided or when the permit is terminated;

(F) A private corporation meeting the financial test may provide a corporate guarantee that closure and post-closure activities will be completed according to the closure plan and permit requirements. To qualify, a private corporation must meet the criteria of either subparagraphs (i) or (ii) of this paragraph:

- (i) Financial Test. To pass the financial test, the permittee must have:
  - (I) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; or a ratio of current assets to current liabilities greater than 1.5;
  - (II) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates;
  - (III) Tangible net worth of at least \$10 million; and
  - (IV) Assets in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates.
- (ii) Alternative Financial Test. To pass the alternative financial test, the permittee must have:
  - (I) A current rating of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Bbb as issued by Moody's;
  - (II) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates;

- (III) Tangible net worth of at least \$10 million; and
- (IV) Assets in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates.

(iii) The permittee shall demonstrate that it passes the financial test at the time the financial assurance plan is filed and reconfirm that annually 90 days after the end of the corporation's fiscal year by submitting the following items to the Department:

- (I) A letter signed by the permittee's chief financial officer that provides the information necessary to document that the permittee passes the financial test; that guarantees that the funds to finance closure and post-closure activities according to the closure plan and permit requirements are available; that guarantees that the closure and post-closure activities will be completed according to the closure plan and permit requirements; that guarantees that the standby closure trust fund will be fully funded within 30 days after either service of a Final Order assessing a civil penalty from the Department for failure to adequately perform closure or post-closure activities according to the closure plan and permit, or service of a written notice from the Department that the permittee no longer meets the criteria of the financial test; that guarantees that the permittee's chief financial officer will notify the Department within 15 days any time that the permittee no longer meets the criteria of the financial test or is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; and that acknowledges that the corporate guarantee is a binding obligation on the corporation and that the chief financial officer has the authority to bind the corporation to the guarantee;
- (II) A copy of the independent certified public accountant's report on examination of the permittee's financial statements for the latest completed fiscal year;
- (III) A special report from the permittee's independent certified public accountant (CPA) stating that the CPA has compared the data which the letter from the permittee's chief financial officer specifies as having been derived from the independently audited year end financial statements for the latest fiscal year with the amounts in such financial statement, and that no matters came to the CPA's attention which caused the CPA to believe that the specified data should be adjusted;
- (IV) A trust agreement demonstrating that a standby closure trust fund has been established with an entity which has authority to act as a trustee and whose trust operations are

regulated and examined by a federal or state agency. The wording of the trust agreement must be acceptable to the Department.

- (iv) The Department may, based on a reasonable belief that the permittee no longer meets the criteria of the financial test, require reports of the financial condition at any time from the permittee in addition to the annual report. If the Department finds, on the basis of such reports or other information, that the permittee no longer meets the criteria of the financial test, the permittee shall fully fund the standby closure trust fund within 30 days after notification by the Department.
  - (G) Alternative forms of financial assurance where the applicant can prove to the satisfaction of the Department that the level of security is equivalent to paragraphs (A) through (F) of this subsection and that the criteria of subsection (3)(a) of this rule are met.
- (4) Accumulation and use of any financial assurance funds:
- (a) The applicant shall set aside funds in the amount and frequency specified in the financial assurance plan approved by the Department. The total amount of financial assurance required shall be available in the form approved by the Department at the time that solid waste is no longer received at the site;
  - (b) The financial assurance plan shall contain adequate accounting procedures to insure that the disposal site operator does not collect or set aside funds in excess of the amount approved by the Department or use the funds for any purpose other than required by paragraph (3)(a)(B) of this rule;
  - (c) The permittee is subject to audit by the Department (or Secretary of State) and shall allow the Department access to all records during normal business hours for the purpose of determining compliance with this rule;
  - (d) If the Department determines that the permittee did not set aside the required amount of funds for financial assurance in the form and at the frequency required by the approved financial assurance plan, or if the Department determines that the financial assurance funds were used for any purpose other than as required in paragraph (3)(a)(B) of this rule, the permittee shall, within 30 days after notification by the Department, deposit a sufficient amount of financial assurance in the form required by the approved financial assurance plan along with an additional amount of financial assurance equal to the amount of interest that would have been earned, had the required amount of financial assurance been deposited on time or had it not been withdrawn for unauthorized use.

Stat. Auth.: ORS Ch.  
Hist.: DEQ 2-1984, f. & ef. 1-16-84

**DIVISION 96**  
**SOLID WASTE: SPECIAL RULES FOR SELECTED SOLID WASTE**  
**DISPOSAL SITES**

**APPLICABILITY**

**340-96-001**

OAR Division 96 applies to energy recovery facilities and incinerators receiving solid waste delivered by the public or by a solid waste collection service, composting facilities, sludge disposal sites, land application disposal sites, transfer stations, material recovery facilities and solid waste treatment facilities.

**SPECIAL RULES PERTAINING TO INCINERATION**

**340-96-010** [Renumbered from 340-61-045]

- (1) Applicability. This rule applies to all energy recovery facilities and incinerators receiving solid waste delivered by the public or by a solid waste collection service. Such facilities are disposal sites as defined by ORS Chapter 459, and are also subject to the requirements of OAR 340 Division 93 and applicable provisions in OAR 340 Divisions 95 and 97.
- (2) [~~1~~] Detailed Plans and Specifications:
  - (a) All incineration equipment and air pollution control appurtenances thereto shall comply with air pollution control rules and regulations and emission standards of this Department or the regional air pollution control authority having jurisdiction;
  - (b) Detailed plans and specifications for incinerator disposal sites shall include, but not be limited to, the location and physical features of the site, such as contours, drainage control, landscaping, fencing, access and on-site roads, solid waste handling facilities, truck washing facilities, ash and residue disposal and design and performance specifications of incineration equipment and provisions for testing emissions therefrom.
- (3) [~~2~~] Incinerator Design and Construction:
  - (a) Ash and Residue Disposal. Incinerator ash and residues shall be disposed in an approved landfill unless handled otherwise in accordance with a plan approved in writing by the Department;
  - (b) Waste Water Discharges. There shall be no discharge of waste water to public waters except in accordance with a permit from the Department, issued under [~~ORS 468.740;~~] ORS 468B.050;
  - (c) Access roads. All weather roads shall be provided from the public highways or roads, to and within the disposal site and shall be designed and maintained to prevent traffic congestion, traffic hazards and dust and noise pollution;



- (d) Drainage. An incinerator site shall be designed such that surface drainage will be diverted around or away from the operational area of the site;
- (e) Fire Protection. Fire protection shall be provided in accordance with plans approved in writing by the Department and in compliance with pertinent state and local fire regulations;
- (f) Fences. Access to the incinerator site shall be controlled by means of a complete perimeter fence and gates which may be locked;
- (g) Sewage Disposal. Sanitary waste disposal shall be accomplished in a manner approved by the Department or state or local health agency having jurisdiction;
- (h) Truck Washing Facilities. Truck washing areas, if provided, shall be hard surfaced and all wash waters shall be conveyed to a catch basin, drainage and disposal system approved by the Department or state or local health agency having jurisdiction.

(4) [~~3~~] Incinerator Operations:

- (a) Storage:
  - (A) All solid waste deposited at the site shall be confined to the designated dumping area;
  - (B) Accumulation of solid wastes and undisposed ash residues shall be kept to minimum practical quantities.
- (b) Salvage:
  - (A) Salvaging shall be controlled so as to not interfere with optimum disposal operation and to not create unsightly conditions or vector harborage;
  - (B) All salvaged material shall be stored in a building or enclosure until it is removed from the disposal site in accordance with a recycling program authorized in the operational plan approved in writing by the Department;
  - (C) Food products, hazardous materials, containers used for hazardous materials, or furniture and bedding with concealed filling shall not be salvaged from a disposal site.
- (c) Nuisance Conditions:
  - (A) Blowing debris shall be controlled such that the entire disposal site is maintained free of litter;
  - (B) Dust, malodors and noise shall be controlled to prevent air pollution or excessive noise as defined by ORS Chapters 467 and 468 and rules and regulations adopted pursuant thereto.
- (d) Health Hazards. Rodent and insect control measures shall be provided, sufficient to prevent vector production and sustenance. Any other conditions which may result in transmission of disease to man and animals shall be controlled;

- (e) Air Quality. The incinerator shall be operated in compliance with applicable air quality rules (OAR 340-25-850 through 340-25-905).
- (f) [(e)] Records. The Department may require such records and reports as it considers are reasonably necessary to ensure compliance with conditions of a permit or these rules.

Stat. Auth.: ORS Ch. 459  
Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72

## SPECIAL RULES PERTAINING TO COMPOSTING [PLANTS] FACILITIES

### 340-96-020 [Renumbered from 340-61-050]

- (1) Applicability. This rule applies to all composting facilities, except as exempted in OAR 340-93-050(2)(c) and (d). Composting facilities are disposal sites as defined by ORS Chapter 459, and are also subject to the requirements of OAR 340 Divisions 93, 95 and 97 as applicable.
- (2) [(4)] Detailed Plans and Specifications shall include but not be limited to:
  - (a) Location and design of the physical features of the site and composting plant, surface drainage control, waste water facilities, fences, residue disposal, odor control and design and performance specifications of the composting equipment and detailed description of methods to be used;
  - (b) A proposed plan for utilization of the processed compost including copies of signed contracts for utilization or other evidence of assured utilization of composted solid waste.
- (3) [(2)] Compost Plan Design and Construction:
  - (a) Non-compostable Wastes. Facilities and procedures shall be provided for handling, recycling or disposing of solid waste that is non-biodegradable by composting;
  - (b) Odors. The design and operational plan shall give consideration to keeping odors to lowest practicable levels. Composting operations, generally, shall not be located in odor sensitive areas;
  - (c) Drainage Control. Provisions shall be made to effectively collect, treat, and dispose of leachate or drainage from stored compost and the composting operation;
  - (d) Waste Water Discharges. There shall be no discharge of waste water to public waters, except in accordance with a permit from the Department, issued under ORS 468.740;
  - (e) Access Roads. All-weather roads shall be provided from the public highway or roads to and within the disposal site and shall be designed and maintained to prevent traffic congestion, traffic hazards and dust and noise pollution;

- (f) Drainage. A composting site shall be designed such that surface drainage will be diverted around or away from the operational area of the site;
  - (g) Fire Protection. Fire protection shall be provided in accordance with plans approved in writing by the Department in compliance with pertinent state and local fire regulations;
  - (h) Fences. Access to the composting site shall be controlled by means of a complete perimeter fence and gates which may be locked;
  - (i) Sewage Disposal. Sanitary waste disposal shall be accomplished in a manner approved by the Department or state or local health agency having jurisdiction;
  - (j) Truck Washing Facilities. Truck washing areas, if provided, shall be hard surfaced and all wash waters shall be conveyed to a catch basin, drainage and disposal system approved by the Department or state or local health agency having jurisdiction.
- (4) ~~[(3)]~~ Composting Plant Operation:
- (a) Supervision of Operation:
    - (A) A composting plan shall be operated under the supervision of a responsible individual who is thoroughly familiar with the operating procedures established by the designer;
    - (B) All compostable waste shall be subjected to complete processing in accordance with the equipment manufacturer's operating instructions or patented process being utilized.
  - (b) Removal of Compost. Compost shall be removed from the composting plan site as frequently as possible, but not later than one year after treatment is completed;
  - (c) Use of Composted Solid Waste. Composted solid waste offered for use by the general public shall contain no pathogenic organisms, shall be relatively odor free and shall not endanger the public health or safety;
  - (d) Storage:
    - (A) All solid waste deposited at the site shall be confined to the designated dumping area;
    - (B) Accumulation of solid wastes and undisposed residues shall be kept to minimum practical quantities.
  - (e) Salvage:
    - (A) Salvaging shall be controlled so as to not interfere with optimum disposal operation and not create unsightly conditions or vector harborage;
    - (B) All salvaged material shall be stored in a building or enclosure until it is removed from the disposal site in accordance with a recycling program authorized in the operational plan approved in writing by the Department.

- (f) Records. The Department may require such records and reports as it considers are reasonably necessary to ensure compliance with conditions of a permit or these rules.

Stat. Auth.: ORS Ch. 459  
Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72

## SPECIAL RULES PERTAINING TO SLUDGE AND LAND APPLICATION DISPOSAL SITES

### 340-96-030 [Renumbered from 340-61-055]

- (1) Applicability. [~~Permit Required:~~]
- (a) This rule applies to all [~~L~~]land used for the spreading, deposit, lagooning or disposal of sewage sludge, septage [~~septic tank pumpings~~] and other sludges. Such land and facilities are [~~is~~] defined as [~~a~~] disposal sites by ORS Chapter 459, and [~~is~~] are also subject to the requirements of OAR 340 Divisions 93, 95 and 97 as applicable, [~~these rules,~~] including the requirements for obtaining a permit from the Department in accordance with [~~OAR 340-61-020 and 340-61-025;~~] OAR 340-93-050 and 340-93-070.
- (b) Disposal of sewage sludges resulting from a sewage treatment facility that is operating under a current and valid Waste Discharge Permit, issued under [~~ORS 468.740,~~] ORS 468B.050, is exempted from obtaining a solid waste disposal permit, provided that said sewage sludge disposal is adequately covered by specific conditions of the Waste Discharge Permit. Such sewage sludge disposal operations and sites shall comply with all other provisions of these rules and other laws, rules and regulations pertaining to solid waste disposal.
- (2) Plans and Specifications for Sludge Disposal Sites:
- (a) Detailed plans and specifications for sludge disposal lagoons shall include, but not be limited to, location and design of the physical features of the site, such as berms, dikes, surface drainage control, access and on-site roads, waste water facilities, inlet and emergency overflow structures, fences, utilities and truck washing facilities, topography with contours not to exceed 5-foot contour intervals, elevations, legal boundaries and property lines, and land use;
- (b) Plans and specifications for land application units [~~spreading of sludge~~] shall include, but not be limited to, physical features of the site, such as, surface drainage, access and on-site roads, fences, truck washing facilities, topography with contours not to exceed 5-foot contour intervals, rates and frequency of sludge application, legal boundaries and property lines and land use.
- (3) Prohibited Methods of Sludge Disposal:
- (a) [~~Septic tank pumpings~~] Septage and raw sewage sludge shall not be permitted to be disposed of by land spreading, unless it is specifically determined and approved in writing by the Department or state or local health agency having jurisdiction, that

such disposal can be conducted with assured, adequate protection of public health and safety and the environment;

- (b) Except for "heat-treated" sewage sludges, sewage sludges including [~~septic-tank pumpings,~~ septage, raw, non-digested and digested sewage sludges, shall not be:
  - (A) Used as fertilizer on root crops, vegetables, low growing berries or fruits that may be eaten raw;
  - (B) Applied to land later than one year prior to planting where vegetables are to be grown;
  - (C) Used on grass in public parks or other areas at a time or in such a way that persons could unknowingly come in contact with it;
  - (D) Given or sold to the public without their knowledge as to its origin.
- (c) Sludges shall not be deposited in landfills except in accordance with operations~~[a]~~ plans that have been submitted to and approved by the Department in accordance with [~~OAR 340-61-040(1)(d),~~ OAR 340-94-060(2)(d) or 340-95-030(2)(d).
- (4) Sludge Lagoon and Land Application Unit [~~Sludge Spreading Area~~] Design, Construction and Operation:
  - (a) Location:
    - (A) Sludge lagoons shall be located a minimum of 1/4 mile from the nearest residence other than that of the lagoon operator or attendant;
    - (B) Sludge shall not be spread on land where natural run-off could carry a residue into public waters;
    - (C) If non-digested sludge is spread on land within 1/4 mile of a residence, community or public use area, it shall be plowed under the ground, buried or otherwise incorporated into the soil within five (5) days after application.
  - (b) Fences:
    - (A) Public access to a lagoon site shall be controlled by man-proof fencing and gates which shall be locked at all times that an attendant is not on duty;
    - (B) Public access to land application units [~~sludge spreading areas~~] shall be controlled by complete perimeter fencing and gates capable of being locked as necessary.
  - (c) Signs. Signs shall be posted at land application units [~~a sludge spreading area~~] as required. Signs which are clearly legible and visible shall be posted on all sides of a sludge lagoon, stating the contents of the lagoon and warning of potential hazard to health;
  - (d) Drainage. A sludge disposal site shall be so located, sloped or protected such that surface drainage will be diverted around or away from the operational area of the

- site;
- (e) Type of Sludge Lagoon. Lagoons shall be designed and constructed to be nonoverflow and watertight;
  - (f) Lagoon Freeboard. A minimum of 3.0 feet of dike freeboard shall be maintained above the maximum water level within a sludge lagoon unless some other minimum freeboard is specifically approved by the Department;
  - (g) Lagoon Emergency Spillway. A sludge lagoon shall be provided with an emergency spillway adequate to prevent cutting-out of the dike, should the water elevation overtop the dike for any reason;
  - (h) Sludge Removal from Lagoon. Water or sludge shall not be pumped or otherwise removed from a lagoon, except in accordance with a plan approved in writing by the Department;
  - (i) Monitoring Wells. Lagoon sites located in areas having high groundwater tables or potential for contaminating usable groundwater resources may be required to provide groundwater monitoring wells in accordance with plans approved in writing by the Department. Said monitoring wells shall be sufficient to detect the movement of groundwater and easily capable of being pumped to obtain water samples;
  - (j) Truck Washing. Truck washing areas, if provided, shall be hard surfaced and all wash waters shall be conveyed to a catch basin, drainage and disposal system approved by the Department or state or local health agency having jurisdiction;
  - (k) Records. The Department may require such records and reports as it considers are reasonably necessary to ensure compliance with conditions of a permit or these rules.

Stat. Auth.: ORS Ch. 459

Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72

## TRANSFER STATIONS AND MATERIAL RECOVERY FACILITIES

340-96-040 [Renumbered from 340-61-065; incorporates part of 340-61-045]

- (1) Applicability. This rule applies to all transfer stations and material recovery facilities (except composting facilities). Such facilities are disposal sites as defined by ORS Chapter 459, and are also subject to the requirements of OAR 340 Divisions 93, 95 and 97 as applicable.
- (2) [(4)] Plans and Specifications. Plans and specifications for a fixed or permanent transfer station or material recovery facility shall include, but not be limited to, the location and physical features of the facility such as contours, surface drainage control, access and on-site roads, traffic routing, landscaping, weigh stations, fences and specifications for solid waste handling equipment, truck and area washing facilities and wash water disposal, and water supply and sanitary waste disposal.
- ~~[(2)] Transfer Station Design, Construction and Operation. The design, construction and operational~~

~~requirements for an incinerator disposal site under OAR 340-61-045(2) and (3) shall apply to a transfer station, except for OAR 340-61-045(2)(a) regarding Ash and Residue.]~~

(3) Design and Construction: [from 340-61-045(2)]

- (a) Waste Water Discharges. There shall be no discharge of waste water to public waters except in accordance with a permit from the Department, issued under ORS 468B.050;
- (b) Access roads. All weather roads shall be provided from the public highways or roads, to and within the disposal site and shall be designed and maintained to prevent traffic congestion, traffic hazards and dust and noise pollution;
- (c) Drainage. The site shall be designed such that surface drainage will be diverted around or away from the operational area of the site;
- (d) Fire Protection. Fire protection shall be provided in accordance with plans approved in writing by the Department and in compliance with pertinent state and local fire regulations;
- (e) Fences. Access to the site shall be controlled by means of a complete perimeter fence and gates which may be locked;
- (f) Solid Waste Disposal. Sanitary waste disposal shall be accomplished in a manner approved by the Department or state or local health agency having jurisdiction;
- (g) Truck Washing Facilities. Truck washing areas, if provided, shall be hard surfaced and all wash waters shall be conveyed to a catch basin, drainage and disposal system approved by the Department or state or local health agency having jurisdiction.

(4) Operations: [from OAR 340-61-045(3)]

(a) Storage:

- (A) All solid waste deposited at the site shall be confined to the designated dumping area;
- (B) Accumulation of solid wastes shall be kept to minimum practical quantities.

(b) Salvage:

- (A) Salvaging shall be controlled so as to not interfere with optimum disposal operation and to not create unsightly conditions or vector harborage;
- (B) All salvaged material shall be stored in a building or enclosure until it is removed from the disposal site in accordance with a recycling program authorized in the operational plan approved in writing by the Department;
- (C) Food products, hazardous materials, containers used for hazardous materials, or furniture and bedding with concealed filling shall not be salvaged from a disposal site.

- (c) Nuisance Conditions:
  - (A) Blowing debris shall be controlled such that the entire disposal site is maintained free of litter;
  - (B) Dust, malodors and noise shall be controlled to prevent air pollution or excessive noise as defined by ORS Chapters 467 and 468 and rules and regulations adopted pursuant thereto.
- (d) Health Hazards. Rodent and insect control measures shall be provided, sufficient to prevent vector production and sustenance. Any other conditions which may result in transmission of disease to man and animals shall be controlled.
- (e) Records. The Department may require such records and reports as it considers are reasonably necessary to ensure compliance with conditions of a permit or these rules.

Stat. Auth.: ORS Ch. 459  
Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72

#### SOLID WASTE TREATMENT FACILITIES

340-96-050 [New Rule]

- (1) Applicability. This rule applies to all solid waste treatment facilities. Such facilities are disposal sites as defined by ORS Chapter 459, and are also subject to the requirements of OAR 340 Divisions 93, 95 and 97 as applicable.
- (2) Plans and Specifications. Plans and specifications for a solid waste treatment facility shall include, but not be limited to, the location and physical features of the facility such as contours, surface drainage control, access and on-site roads, traffic routing, landscaping, weigh stations, fences and specifications for solid waste handling equipment, truck and area washing facilities and wash water disposal, and water supply and sanitary waste disposal.
- (3) Air quality. A permittee shall ensure that all solid waste treatment facilities comply with air pollution control rules and regulations and emission standards of this Department or the regional air pollution control authority having jurisdiction.
- (4) Bioremediation facilities. Facilities that propose to biologically treat petroleum contaminated soil must design the operation to prevent contamination of the area and minimize the possibility of contaminants leaching to groundwater. Such facilities shall in general comply with regulations in OAR 340 Division 95, "Land Disposal Sites Other than Municipal Solid Waste Landfills," for location restrictions, operating criteria and design criteria. The following requirements also apply:
  - (a) To prevent leaching, design criteria must include either:
    - (A) A landfill-type liner with a leachate removal system. A concrete slab is not considered a liner. An applicant must demonstrate that the proposed liner is



compatible with the waste; or

- (B) A vadose zone monitoring system, pursuant to 40 CFR 264, Subpart M.
- (b) Groundwater. The Department may require groundwater monitoring depending on the facility's cover, run-on controls and irrigation.
- (c) Operating criteria:
  - (A) Each permittee shall ensure that surface runoff and leachate seeps are controlled so as to minimize discharges of pollutants into public waters.
  - (B) The permittee must ensure that the facility is operated in a manner such that the liner is not damaged.
  - (C) The permittee must provide a monitoring plan to demonstrate completion of the biodegradation process.
- (d) Financial assurance. An application for a bioremediation solid waste treatment facility shall include a financial assurance plan sufficient to cover costs for a third party to remove the waste to a thermal desorption facility if it is deemed necessary by the Department.
- (5) Records. The Department may require such records and reports as it considers are reasonably necessary to ensure compliance with conditions of a permit or these rules.

**DIVISION 97**  
**SOLID WASTE: PERMIT FEES**

**APPLICABILITY**

**340-97-001**

OAR 340 Division 97 applies to persons owning or operating, or applying to the Department to own or operate, a municipal solid waste landfill, a non-municipal land disposal site, an energy recovery facility or an incinerator receiving solid waste delivered by the public or by a solid waste collection service, a composting facility, a sludge disposal site, a land application disposal site, a transfer station, a material recovery facility, a solid waste treatment facility or any other solid waste disposal site required to obtain a solid waste permit from the Department.

**SOLID WASTE PERMIT AND DISPOSAL FEES**

**340-97-110 [Renumbered from 340-61-115]**

- (1) Each person required to have a Solid Waste Disposal Permit shall be subject to ~~the following fees:~~ the following fees:
  - (a) ~~A fee~~ An application processing fee for new facilities. ~~The amount equal to the application processing fee shall be submitted as a required part of any application for a new permit.~~
  - (b) ~~A fee~~ An annual solid waste permit fee as listed in [OAR 340-61-120] OAR 340-97-120(3) and
  - (c) ~~The 1991 Recycling Act [SB-66] annual fee as listed in [OAR 340-61-120(4)].~~ OAR 340-97-120(4).
- (2) In addition, each disposal site receiving domestic solid waste shall be subject to a per-ton solid waste disposal fee on domestic solid waste as specified in Section 5 of ~~[OAR 340-61-120.]~~ OAR 340-97-120.
- (3) Out-of-state solid waste. In addition, each disposal site or regional disposal site receiving solid waste generated out-of-state shall pay a per-ton solid waste disposal fee as specified in Section 6 of ~~[OAR 340-61-120] OAR 340-97-120~~ or a surcharge as specified in Section 7 of ~~[OAR 340-61-120.] OAR 340-97-120.~~ ~~The amount equal to the application processing fee shall be submitted as a required part of any application for a new permit.~~
- (4) Annual permit fees: ~~(2)~~ The annual solid waste permit fee and, if applicable, the 1991 Recycling Act [SB-66] annual fee must be paid for each year a disposal site is in operation or under permit. The fee period shall be the state's fiscal year (July 1 through June 30) and shall be paid annually. ~~[by July 1.]~~
  - (a) New sites.
    - (A) Any new disposal site placed into operation after January 1 shall not owe an annual solid waste permit fee or a 1991 Recycling Act [SB-66] annual fee until July 1 of the following year ~~except as specified in paragraph~~

(4)(a)(B) of this rule.

(B) For a new transfer station or material recovery facility: For the first year's operation, the full annual permit fee shall apply if the facility is placed into operation on or before April 1. Any new facility placed into operation after April 1 shall not owe an annual fee until the Department's annual billing for the next fiscal year. An application for a new transfer station or material recovery facility shall include the applicable annual permit fee for the first year of operation.

(b) Existing sites. Any existing disposal site that is in operation or receives solid waste in a calendar year must pay the annual solid waste permit fee and 1991 Recycling Act [SB-66] annual fee, if applicable, as specified in [~~OAR 340-61-120~~] OAR 340-97-120(3)(a) and [~~340-61-120~~] 340-97-120(4) for the fiscal year which begins on July 1 of the following calendar year.

(c) Closed sites. If no solid waste was received in the previous calendar year and the site is closed, a solid waste permittee shall pay the annual solid waste permit fee for closed sites as specified in [~~OAR 340-61-120~~] OAR 340-97-120(3)(c).

(d) The Director may alter the due date for the annual solid waste permit fee and, if applicable, the 1991 Recycling Act [SB-66] annual fee upon receipt of a justifiable request from a permittee.

(5) Calculation of tonnages. [(3)] Permittees are responsible for accurate calculation of solid waste tonnages. For purposes of determining appropriate fees under [~~OAR 340-61-120~~] OAR 340-97-120(3) through (7), annual tonnage of solid waste received shall be calculated as follows:

(a) Municipal solid waste facilities. Annual tonnage of solid waste received at municipal solid waste facilities, including demolition sites, receiving 50,000 or more tons annually shall be based on weight from certified scales after January 1, 1994. If certified scales are not required or not available, estimated annual tonnage for municipal solid waste will be based upon 300 pounds per cubic yard of uncompacted waste received, 700 pounds per cubic yard of compacted waste received, or, if yardage is not known, one ton per resident in the service area of the disposal site, unless the permittee demonstrates a more accurate estimate. For other types of wastes received at municipal solid waste sites and where certified scales are not required or not available, the conversions and provisions in subsection (b) of this Section shall be used.

(b) Industrial facilities. Annual tonnage of solid waste received at off-site industrial facilities receiving 50,000 or more tons annually shall be based on weight from certified scales after January 1, 1994. If certified scales are not required, or at those sites receiving less than 50,000 tons a year if scales are not available, industrial sites shall use the following conversion factors to determine tonnage of solid waste disposed of:

(A) Asbestos: 500 pounds per cubic yard.

(B) Pulp and paper waste other than sludge: 1,000 pounds per cubic yard.

(C) Construction, demolition and landclearing wastes: 1,100 pounds per cubic yard.

- (D) Wood waste: 1,200 pounds per cubic yard.
  - (E) Food waste, manure, sludge, septage, grits, screenings and other wet wastes: 1,600 pounds per cubic yard.
  - (F) Ash and slag: 2,000 pounds per cubic yard.
  - (G) Contaminated soils: 2,400 pounds per cubic yard.
  - (H) Asphalt, mining and milling wastes, foundry sand, silica: 2,500 pounds per cubic yard.
  - (I) For wastes other than the above, the permittee shall determine the density of the wastes subject to approval by the Department.
  - (J) As an alternative to the above conversion factors, the permittee may determine the density of their own waste, subject to approval by the Department.
- (6) ~~[(4)]~~ The application processing fee may be refunded in whole or in part, after taking into consideration any costs the Department may have incurred in processing the application, when submitted with an application if either of the following conditions exist:
- (a) The Department determines that no permit will be required;
  - (b) The applicant withdraws the application before the Department has granted or denied preliminary approval or, if no preliminary approval has been granted or denied, the Department has approved or denied the application.
- (7) Exemptions. Persons treating petroleum contaminated soils shall be exempt from the application processing fee for a Letter Authorization if the following conditions are met:
- (a) The soil is being treated as part of a site cleanup authorized under ORS 465 or 466; and
  - (b) The Department and the applicant for the Letter Authorization have entered into a written agreement under which costs incurred by the Department for oversight of the cleanup and for processing of the Letter Authorization must be paid by the applicant.
- (8) ~~[(5)]~~ All fees shall be made payable to the Department of Environmental Quality.
- (9) ~~[(6)]~~ Submittal schedule.
- (a) The annual solid waste permit fee shall be billed to the permittee by the Department, and is due annually by the date indicated on the invoice. ~~[by July 1 of each year.]~~
  - (b) The 1991 Recycling Act ~~[SB-66]~~ annual fee shall be billed to the permittee by the Department, and is due annually by the date indicated on the invoice. ~~[by July 1 of each year.]~~
  - (c) The per-ton solid waste disposal fees on domestic and out-of-state solid waste are not billed by the Department. They are due on the following schedule:
    - (A) Quarterly, on the 30th day of the month following the end of the calendar

quarter; or

- (B) On the same schedule as the waste volume reports required in the disposal permit, whichever is less frequent.
- (d) The surcharge on disposal of solid waste generated out-of-state is not billed by the Department. It is due on the same schedule as the per-ton solid waste disposal fees above.

Stat. Auth.: ORS Ch. 459.297, 459.298 & 468

Hist.: DEQ 3-1984, f. & ef. 3-7-84; DEQ 45-1990, f. & cert. ef. 12-26-90; DEQ 12-1991(Temp), f. & cert. ef. 8-2-91; DEQ 28-1991, f. & cert. ef. 12-18-91; DEQ 8-1992, f. & cert. ef. 4-30-92

## PERMIT FEE SCHEDULE

### 340-97-120 [Renumbered from 340-61-120]

- (1) For purposes of this rule:
  - (a) A "new facility" means a facility at a location not previously used or permitted, and does not include an expansion to an existing permitted site.
  - (b) An "off-site industrial facility" means all industrial solid waste disposal sites other than a "captive industrial disposal site."
  - (c) A "captive industrial facility" means an industrial solid waste disposal site where the permittee is the owner and operator of the site and is the generator of all the solid waste received at the site.
- (2) Application Processing Fee. An application processing fee shall be submitted with each application for a new facility, including application for preliminary approval pursuant to OAR 340-93-090. The amount of the fee shall depend on the type of facility and the required action as follows:
  - (a) A new municipal solid waste landfill facility, incinerator, energy recovery facility, composting facility for mixed solid waste, solid waste treatment facility, off-site industrial facility or sludge disposal facility:
    - (A) Designed to receive over 7,500 tons of solid waste per year: \$10,000
    - (B) Designed to receive less than 7,500 tons of solid waste per year: \$5,000
  - (b) A new captive industrial facility (other than a transfer station or material recovery facility): \$1,000
  - (c) A new transfer station or material recovery facility -
    - (A) Receiving over 50,000 tons of solid waste per year: \$500
    - (B) Receiving between 10,000 and 50,000 tons of solid waste per year: \$200
    - (C) Receiving less than 10,000 tons of solid waste per year: \$100

- (d) Letter authorizations (pursuant to OAR 340-93-060): [~~340-61-027~~]; \$500
- (e) Before June 30, 1994: Hazardous substance authorization (Any permit or plan review application which seeks new[~~, renewed,~~] or significant modification in authorization to landfill cleanup materials contaminated by hazardous substances):
  - (A) Authorization to receive 100,000 tons or more of designated cleanup [~~waste~~] material per year \$50,000
  - (B) Authorization to receive at least 50,000 but less than 100,000 tons of designated cleanup material per year \$25,000
  - (C) Authorization to receive at least 25,000 but less than 50,000 tons of designated cleanup material per year \$12,500
  - (D) Authorization to receive at least 10,000 but less than 25,000 tons of designated cleanup material per year \$ 5,000
  - (E) Authorization to receive at least 5,000 but less than 10,000 tons of designated cleanup material per year \$ 1,000
  - (F) Authorization to receive at least 1,000 but less than 5,000 tons of designated cleanup material per year \$ 250
- (3) Annual Solid Waste Permit Fee. The Commission establishes the following fee schedule including base per-ton rates to be used to determine the annual solid waste permit fee beginning with fiscal year 1993. The per-ton rates are based on the estimated solid waste received at all permitted solid waste disposal sites and on the Department's Legislatively Approved Budget. The Department will review annually the amount of revenue generated by this fee schedule. To determine the annual solid waste permit fee, the Department may use the base per-ton rates, or any lower rates if the rates would generate more revenue than provided in the Department's Legislatively Approved Budget. Any increase in the base rates must be fixed by rule by the Commission. (In any case where a facility fits into more than one category, the permittee shall pay only the highest fee):
  - (a) All facilities accepting solid waste except transfer stations and material recovery facilities:
    - (A) \$200; or
    - (B) An annual solid waste permit fee based on the total amount of solid waste received at the facility in the previous calendar year, at the following rate:
      - (i) All municipal landfills, demolition landfills, off-site industrial facilities, sludge disposal facilities, [~~and~~] incinerators and solid waste treatment facilities: \$.21 per ton.
      - (ii) Captive industrial facilities: \$.21 per ton.
      - (iii) Energy recovery facilities: \$.13 per ton.
      - (iv) Composting facilities receiving mixed solid waste: \$.10 per ton.

- (C) If a disposal site (other than a municipal solid waste facility) is not required by the Department to monitor and report volumes of solid waste collected, the annual solid waste permit fee may be based on the estimated tonnage received in the previous year.
- (b) Transfer stations and material recovery facilities:
- |     |  |         |
|-----|--|---------|
| (A) | Facilities accepting over 50,000 tons of solid waste per year:               | \$1,000 |
| (B) | Facilities accepting between 10,000 and 50,000 tons of solid waste per year: | \$500   |
| (C) | Facilities accepting less than 10,000 tons of solid waste per year:          | \$50    |
- (c) Closed Disposal Sites: Each landfill which closes after July 1, 1984: . . . . \$150, or the average tonnage of solid waste received in the 3 most active years of site operation multiplied by \$.025 per ton, whichever is greater; but the maximum annual permit fee shall not exceed \$2,500.
- (4) 1991 Recycling Act [~~Senate Bill 66 (SB-66)~~] annual fee.
- (a) A 1991 Recycling Act [~~SB-66~~] annual fee shall be submitted by each solid waste permittee which received solid waste in the previous calendar year, except transfer stations, material recovery facilities and captive industrial facilities. The Commission establishes the 1991 Recycling Act [~~SB-66~~] annual fee as \$.09 per ton for each ton of solid waste received in the subject calendar year.
- (b) The \$.09 per-ton rate is based on the estimated solid waste received at all permitted solid waste disposal sites in the previous calendar year and on the Department's Legislatively Approved Budget. The Department will review annually the amount of revenue generated by this rate. To determine the 1991 Recycling Act [~~SB-66~~] annual fee, the Department may use this rate, or any lower rate if the rate would generate more revenue than provided in the Department's Legislatively Approved Budget. Any increase in the rate must be fixed by rule by the Commission.
- (c) The Department shall bill the permittee for the amount of this fee together with the annual solid waste permit fee in Section 3 of this rule. This fee is in addition to any other permit fee and per-ton fee which may be assessed by the Department.
- (5) Per-ton solid waste disposal fees on domestic solid waste. Each solid waste disposal site that receives domestic solid waste, except transfer stations, material recovery facilities, treatment facilities and composting facilities, shall submit to the Department of Environmental Quality the following fees for each ton of domestic solid waste received at the disposal site:
- (a) A per-ton fee of 50 cents.
- (b) From January 1, 1992, to December 31, 1993, an additional per-ton fee of 35 cents.
- (c) Beginning January 1, 1994 the additional per-ton fee established in subsection (5)(b) of this rule shall be reduced to 31 cents.
- (d) Beginning January 1, 1993, an additional per-ton fee of 13 cents for the Orphan Site Account.

- (e) Submittal schedule:
- (A) These per-ton fees shall be submitted to the Department quarterly, or on the same schedule as the waste volume reports required in the disposal permit, whichever is less frequent. Quarterly remittals shall be due on the 30th day of the month following the end of the calendar quarter.
- (B) Disposal sites receiving less than 1,000 tons of solid waste per year shall submit the fees annually on July 1, beginning in 1991. If the disposal site is not required by the Department to monitor and report volumes of solid waste collected, the fees shall be accompanied by an estimate of the population served by the disposal site.
- (f) As used in this rule and in OAR 340-97-110, the term "domestic solid waste" [~~includes, but is not limited to, residential, commercial and institutional wastes; but the term~~] does not include:
- ~~[(A) Sewage sludge or septic tank and cesspool pumpings;]~~
- ~~[(B) Building demolition or construction wastes and land clearing debris, if delivered to a disposal site that is limited to those purposes;]~~
- (A) ~~[(C)]~~ Source separated recyclable material, or material recovered at the disposal site; or
- ~~[(D) Waste going to an industrial waste facility;]~~
- ~~[(E) Waste received at an ash monofill from an energy recovery facility; or]~~
- (B) ~~[(F)]~~ Domestic solid waste which is not generated within this state.
- (g) For solid waste delivered to disposal facilities owned or operated by a metropolitan service district, the fees established in this section shall be levied on the district, not on the disposal site.
- (6) Per-ton solid waste disposal fee on solid waste generated out-of-state. Each solid waste disposal site or regional disposal site that receives solid waste generated out-of-state shall submit to the Department a per-ton solid waste disposal fee. The per-ton solid waste disposal fee shall be the sum of the per-ton fees established for domestic solid waste in subsections (5)(a), (5)(b), (5)(c) and (5)(d) of this rule.
- (a) The per-ton fee solid waste disposal fee shall become effective on the dates specified in section (5) of this rule and shall apply to all solid waste received after July 1, 1991.
- (b) This per-ton solid waste disposal fee shall apply to each ton of out-of-state solid waste received at the disposal site; but shall not include source separated recyclable materials, or material recovered at the disposal site.
- (c) Submittal schedule: This per-ton solid waste disposal fee shall be submitted to the Department quarterly, or on the same schedule as the waste volume reports required in the disposal permit, whichever is less frequent. Quarterly remittals shall be due on the 30th day of the month following the end of the calendar quarter.



- (d) This per-ton solid waste disposal fee on out-of-state solid waste shall be collected at the first disposal facility in Oregon receiving the waste, including but not limited to a solid waste land disposal site, transfer station or incinerator, and remitted directly to the Department on the schedule specified in this rule.
  - (e) If, after final appeal, the surcharge established in section (7) of this rule is held to be valid and the state is able to collect the surcharge, the per-ton fee on solid waste generated out-of-state established in this section shall no longer apply, except for any per-ton fee established pursuant to ORS 459.236, and the person responsible for payment of the surcharge may deduct from the amount due any fees paid to the Department on solid waste generated out-of-state under section (6) of this rule.
- (7) Surcharge on disposal of solid waste generated out-of-state. Each solid waste disposal site or regional solid waste disposal site that receives solid waste generated out-of-state shall submit to the Department of Environmental Quality a per-ton surcharge of \$2.25. This surcharge shall apply to each ton of out-of-state solid waste received at the disposal site.
- (a) This per-ton surcharge shall apply to all solid waste received after January 1, 1991.
  - (b) Submittal schedule: This per-ton surcharge shall be submitted to the Department quarterly, or on the same schedule as the waste volume reports required in the disposal permit, whichever is less frequent. Quarterly remittals shall be due on the 30th day of the month following the end of the calendar quarter.
  - (c) This surcharge shall be in addition to any other fee charged for disposal of solid waste at the site.
  - (d) This surcharge on out-of-state solid waste shall be collected at the first disposal facility in Oregon receiving the waste, including but not limited to a solid waste land disposal site, transfer station or incinerator, and remitted directly to the Department on the schedule specified in this rule.

Stat. Auth.: ORS Ch. 459.045(1) & (3), 459.235(2), 459.297, 459.298, 459.420 & 468.065  
Hist.: DEQ 3-1984, f. & ef. 3-7-84; DEQ 12-1988, f. & cert. ef. 6-14-88; DEQ 14-1990, f. & cert. ef. 3-22-90; DEQ 45-1990, f. & cert. ef. 12-26-90; DEQ 12-1991(Temp), f. & cert. ef. 8-2-91; DEQ 28-1991, f. & cert. ef. 12-18-91; DEQ 8-1992, f. & cert. ef. 4-30-92

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ATTACHMENT B

**NOTICE OF PROPOSED RULEMAKING HEARING**

(Rulemaking Statements and Statement of Fiscal Impact **must** accompany this form.)

**AGENCY:** Department of Environmental Quality, Hazardous and Solid Waste Division

The above named agency gives notice of hearing.

**HEARING TO BE HELD:**

<b>DATE:</b>	<b>TIME:</b>	<b>LOCATION:</b>
1/19/93	10 a.m.	DEQ Conference Room 3A, 811 SW Sixth Avenue, Portland
1/20/93	10 a.m.	City of Bend Public Works Bldg, 1375 NE Forbes Road, Bend
1/20/93	10 a.m.	Springfield City Council Chambers, City Hall, 225 N. 5th, Springfield
1/21/93	10 a.m.	Jackson County Courthouse Auditorium, 10 S. Oakdale, Medford
1/21/93	10 a.m.	Hoke Building College Center, Room 201, Eastern Oregon State College, LaGrande

Hearings Officer: Charles W. Donaldson (in Bend and LaGrande); Deanna Mueller-Crispin (in Portland, Springfield and Medford)

Pursuant to the Statutory Authority of ORS 459.005 through 459.418 and ORS 459A.100 through 459A.120, the following action is proposed:

**ADOPT:** OAR 340 Divisions 93, 94, 95, 96 and 97

**AMEND:** Renumbering OAR 340 Division 61 into new Divisions 93, 94, 95, 96 and 97

**REPEAL:**

Prior Notice Given; Hearing Requested by Interested persons

No Prior Notice Given

**SUMMARY:**


State solid waste rules (OAR 340 Division 61) are being amended to incorporate federal criteria for municipal solid waste landfills (40 CFR Part 258). Changes to protect the environment and public health are being proposed, including a requirement for a secondary leachate collection system in certain municipal solid waste landfills and new standards for solid waste treatment facilities. Certain fees for solid waste treatment facilities, transfer stations, material recovery facilities and composting facilities are clarified. Other changes clarifying and updating existing Department policies and procedures are proposed.

Interested persons may comment on the proposed rules orally or in writing at the hearing. Written comments received by 5 p.m., January 27, 1993 will also be considered. Written comments should be sent to and copies of the proposed rulemaking may be obtained from:

**AGENCY:** Department of Environmental Quality  
**ADDRESS:** Hazardous and Solid Waste Division  
811 S. W. 6th Avenue  
Portland, Oregon 97204

**ATTN:** Deanna Mueller-Crispin

**PHONE:** 229-5808 or Toll Free 1-800-452-4011

 12/15/92  
Signature Date

bul.ann

*Oregon Department of Environmental Quality*

## **A CHANCE TO COMMENT ON...**

**Revision of Solid Waste Rules to Adopt Federal Criteria  
for Municipal Solid Waste Landfills ("Subtitle D")**

Date Issued:	12/15/92
Public Hearings:	1/19/93: Portland 1/20/93: Bend 1/20/93: Springfield 1/21/93: La Grande 1/21/93: Medford
Comments Due:	1/27/93

**WHO IS  
AFFECTED:**

Owners and operators of solid waste disposal sites including municipal solid waste landfills and solid waste treatment facilities, garbage haulers, local governments, general public disposing of solid waste, other generators of solid waste.

**WHAT IS  
PROPOSED:**

The Department proposes to modify its solid waste rules to incorporate federal criteria for municipal solid waste landfills (40 CFR Part 258, "Subtitle D"), and to make certain other changes to protect the environment and public health. The rules would be renumbered from OAR 340 Division 61 to OAR 340 Divisions 93 through 97.

**WHAT ARE THE  
HIGHLIGHTS:**

The federal criteria set minimum standards for location, operation, design, corrective action, financial assurance, closure and post-closure care of municipal solid waste landfills (MSWLFs). The rule would also establish a requirement for secondary leachate collection systems in certain MSWLFs, and would prohibit siting of landfills in sensitive hydrogeological environments such as gravel pits. It would establish design and operations standards for solid waste treatment facilities (for bioremediation of contaminated soils). It would clarify solid waste fees for solid waste treatment facilities, transfer stations, material recovery facilities and composting facilities. Other changes clarifying and updating Department policies and procedures are proposed.

- 1 -



811 S.W. 6th Avenue  
Portland, OR 97204

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**FOR FURTHER INFORMATION:**

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

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**HOW TO  
COMMENT:**

Public Hearings to provide information and receive public comment are scheduled as follows:

DEQ Conference Room 3A, 811 SW Sixth, Portland, 10 a.m.,  
January 19, 1993

Springfield City Council Chambers, 225 N. 5th, Springfield,  
10 a.m., January 20, 1993

City of Bend Public Works Building, 1375 NE Forbes Road, Bend,  
10 a.m., January 20, 1993

Jackson County Courthouse Auditorium, 10 S. Oakdale, Medford,  
10 a.m., January 21, 1993

Hoke Building College Center, Room 201, Eastern Oregon State  
College, La Grande, 10 a.m., January 21, 1993

Written comments must be received by close of business, January 27,  
1993, at the following address:

Department of Environmental Quality  
Hazardous and Solid Waste Division  
811 SW 6th Avenue, 7th Floor  
Portland, Oregon 97204

A copy of the Proposed Rule may be reviewed at the above address. A  
copy may be obtained from the Department by calling the Hazardous and  
Solid Waste Division at 229-6509 or calling Oregon toll free 1-800-452-  
4011.

**WHAT IS THE  
NEXT STEP:**

The Department will evaluate comments received and will make a  
recommendation to the Environmental Quality Commission. Interested  
parties can request to be notified of the date the Commission will consider  
the matter by writing to the Department at the above address.

SW\RPT\SK4470 (11/92)

## ATTACHMENT B

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Revision of Solid Waste Rules to Adopt Federal Criteria  
for Municipal Solid Waste Landfills ("Subtitle D")

### Rulemaking Statements

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

1. Legal Authority

ORS 459.005 through 459.418, ORS 459A.100 through 459A.120

2. Need for the Rule

State solid waste rules must be amended to incorporate federal criteria for municipal solid waste landfills (40 CFR Part 258, "Subtitle D") in order to implement the federal requirements and receive approval from the Environmental Protection Agency as as "approved state." Other changes are necessary to protect the environment and public health.

3. Principal Documents Relied Upon in this Rulemaking

- 1) ORS 459
- 2) ORS 459A
- 3) OAR 340 Division 61
- 4) OAR 340 Division 40
- 5) OAR 340 Division 60
- 6) 40 CFR Part 258

The preceding documents are available for inspection at DEQ Headquarters, 811 SW Sixth Avenue, Portland, Oregon, Hazardous and Solid Waste Division.

need.eqc

## ATTACHMENT B

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

### Rulemaking Proposal for Revision of Solid Waste Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

## Fiscal and Economic Impact Statement

### Introduction

The following amendments to the solid waste rules would have fiscal and economic impacts:

1. Adoption of Federal Criteria for Municipal Solid Waste Landfills (40 CFR Part 258, "Subtitle D").
2. Requirement for new cells in municipal solid waste landfills to have secondary leachate collection systems.
3. Prohibition against siting landfills in certain sensitive hydrogeological environments.
4. New regulations governing solid waste treatment facilities.
5. Solid waste fees: a) clarification that new transfer stations and material recovery facilities shall pay an annual permit fee for the first year's operation at the time application for the new facility is made to the Department; b) assignment of solid waste treatment facilities to the same fee category as landfills; and c) exemption from Letter Authorization processing fee for treatment of petroleum cointaminated soils under certain conditions.

Following is a discussion of the fiscal impacts of the above.

1. The federal "Subtitle D" regulations require municipal solid waste landfills (MSWLFs) to implement a range of preventive measures, and provide states with the flexibility to adopt those preventive measures most appropriate to the state. Ash monofills receiving ash from domestic solid waste are also subject

to Subtitle D. Requirements include location, design, operation, ground-water monitoring, corrective action, closure and post-closure care, and financial assurance.

The Environmental Protection Agency (EPA) did an analysis of costs of implementing the Subtitle D regulation (December 1990 Regulatory Impact Analysis, U.S. EPA, Office of Solid Waste; and Addendum for the Final Criteria for Municipal Solid Waste Landfills, August 1991). The analysis assumed performance-based design requirements, and used a risk model to determine which landfills would trigger corrective action. EPA's cost estimate assumes partial regionalization, shifts of waste to recycling and combustion, and calculates "incremental costs" over existing state regulations. The average annualized incremental cost is \$2 per ton of solid waste for compliance with Subtitle D, with a range of \$1 to \$24 per ton. The maximum cost reflects design costs of small landfills in states with few existing requirements. Landfill size is a key factor in determining cost per ton, with larger landfills benefitting from economies of scale. Landfills in states with comprehensive solid waste regulatory programs (such as Oregon) will face lower incremental costs than those in states with few regulations. The rule gives states whose solid waste programs are approved by EPA the flexibility to allow MSWLF owners and operators to choose the least-cost design meeting the performance standard. The average incremental cost per household (nationally) is \$4 annually. This assumes that two tons of solid waste are generated for each household.

EPA also completed a small community analysis (e.g. fewer than 5,000 people). Nationally, landfills in small communities represent 51 percent of total landfills, but handle only 2 percent of the total waste. This phenomenon is even more pronounced in Oregon, where landfills in small communities constitute 65 percent of all municipal landfills, but handle 2 percent of the total waste. These small landfills tend to be poorly located and designed, and operate at the high end of the cost per ton scale (although they may charge low, or no, rates to those using the landfill). As a result, small communities have strong incentives to regionalize solid waste management. This is expected to happen in Oregon, accelerated by Subtitle D, and could result in the long term impacts of Subtitle D regulations decreasing over time. Subtitle D also includes a "small landfill exemption" for landfills receiving fewer than 7,300 tons a year in arid regions (<25" of rainfall), if there is no reasonable alternative for regionalization and no evidence of existing groundwater contamination. These landfills would be exempted from certain requirements of the regulation (design standards, groundwater monitoring and corrective action), reducing the economic impact on these communities.



Many of the increased Subtitle D costs are related to new operational requirements, such as more thorough inspections to screen hazardous waste and increased record-keeping. The effect of the Subtitle D regulations on closure for any particular MSWLF will depend on the nature of the facility, and how good the planning for closure of the site has been.

Subtitle D requires owners or operators of MSWLFs to provide financial assurance for site closure, post-closure care and corrective action at the time application is made for a new site, effective April 9, 1994. This requirement does not change the amount of a permittee's responsibility for financial assurance for closure, nor does it change a permittee's liability under the state groundwater protection rules, but it may move them forward in time. State law currently requires a permittee to submit a plan to provide financial assurance five years before anticipated site closure, except for "regional" solid waste landfills which must provide financial assurance up front.

The proposed rule would slightly broaden the federal definition of "MSWLF" to include any landfill receiving "domestic solid waste" (defined in ORS 459A.100 as including residential, commercial and institutional waste, all traditionally part of the "municipal" solid waste stream). This would extend Subtitle D requirements to any landfills (including construction and demolition landfills) which receive waste from commercial generators even if no waste generated by households is accepted. The federal regulation encompasses only landfills receiving "household" waste, which under the federal definition (§258.2) includes waste from hotels and motels, but not from other commercial establishments. Landfills which now receive only construction and demolition (C & D) waste do not in general have to meet engineering standards as high as those met by MSWLFs, as C & D waste does not present as many environmental problems. Landfills receiving only industrial waste, or only construction and demolition solid waste would not be affected unless they decided to accept waste streams affected by the definition of "domestic solid waste."

2. The requirement for secondary leachate collection systems will affect new cells in all MSWLFs, that is any MSWLFs which expand operations. The system must be capable of collecting leachate at locations of maximum probability of leaks. An acceptable system would probably underlie from 10 to 20 percent of the area of the landfill's composite liner. This requirement is expected to add \$.30 to \$.50 per ton to the cost of operations, depending on the annual solid waste tonnage received. The less tonnage received, the higher the per-ton cost becomes. The proposed rule would allow the Department to approve alternative technologies which might be less costly. If, based on site-specific conditions at a MSWLF, the Department determines that leaking is improbable, this requirement would not apply. DEQ estimates

that at least eight MSWLFs statewide serving a total of about 310,000 households will expand operations, and would ultimately be affected when they construct new cells. This regulation allows leaking leachate to be removed (from areas most likely to leak) before it impacts the groundwater, and thus helps avoid costly remedial treatment of groundwater. Groundwater remediation begins with a full characterization of the geochemistry and geology of a site, and may include a pump and treat system that continues indefinitely. Such systems may easily cost \$500,000 a year, and may amount to millions or even tens of millions of dollars per site over time. Such systems may not restore the groundwater to original conditions.

3. The prohibition against siting landfills in certain sensitive hydrogeological areas could result in some exhausted gravel pits not being converted to landfills (probably for construction and demolition waste) that might otherwise have been. Such landfills are relatively inexpensive to create, but lack environmental controls (such as engineered liners). Waste that might have been disposed of at such landfills will have to go to a better engineered landfill, likely at a higher disposal cost. EPA estimates that the incremental cost of constructing a landfill with a synthetic lined/cover over that of an unlined landfill is from \$6 to \$37 per ton of solid waste, depending on the size of the landfill. This prohibition could also have a positive economic impact in that groundwater is less likely to be polluted, avoiding the expensive groundwater remediation costs noted above.
4. Solid waste treatment facilities such as soil bioremediation operations would be required to meet certain standards, either liners and leachate collection systems, or vadose zone monitoring. Per-acre costs of a landfill liner could range from \$60,000 for a membrane liner (on two feet of sand), to \$200 - 300,000 for a composite liner. Costs of drainage pipe (for leachate collection) depend on the density of line per acre. Each pipe line (280') would cost about \$5,000. Alternatively, a vadose zone monitoring system (with pan lysimeters) is estimated to cost considerably less per acre. Financial assurance could range up to \$150 per ton of soil remediation capacity. DEQ estimates one new application annually for bioremediation facilities. Again, the purpose of the requirement is to avoid contamination of groundwater and avoid the environmental and economic costs of remediation.
5. Fees.
  - a) DEQ anticipates that about five or six applications for new transfer stations and material recovery facilities will be received annually in the near future. Applicants will be responsible for remitting an annual permit fee for the first year's operation together with the permit application. This is \$50,

\$500 or \$1,000 depending on the size of the facility. Most facilities will fall into the lowest category.

b) New solid waste treatment facilities will be subject to a \$10,000 permit application processing fee, and an annual fee based on \$.21 per ton of waste received (existing OAR 340-61-120(3)(a)(B)). DEQ estimates that there may be one such application annually, the capacity of which could vary widely.

c) DEQ estimates approximately 100 applicants annually might normally apply for a Letter Authorization for voluntary treatment of petroleum contaminated soils. The proposed rule would waive the \$500 solid waste processing fee for these applicants if they have a written agreement with DEQ to pay back the Department's oversight costs. Such costs would vary, but in general would range from \$200 to \$400 per site, decreasing the cost burden for such cleanups.

### **General Public**

Any increased design, construction or operational costs incurred by MSWLFs will likely be passed on to the users of the landfill. As noted above, increased costs associated with Subtitle D criteria are estimated by EPA to be an average of \$4 per household per year, although the cost could vary considerably depending on the size of the landfill (higher costs for smaller landfills). There would be an additional cost of \$.30 to \$.50 per year per household for persons using landfills subject to the secondary leachate collection system requirement. The increased cost represented by the up-front annual permit fee for transfer stations would have a negligible one-year cost per affected household (<\$.05 per household). On the positive side, the increased environmental protection mechanisms should help avoid or lessen future groundwater remediation costs. See paragraph 2. above.

### **Small Business**

Small businesses would be affected in a similar way to the general public. In addition, any small businesses now operating and choosing to continue operation of MSWLFs will incur direct financial impacts from Subtitle D requirements (see 1. above). Small businesses wanting to dispose of petroleum-contaminated soils at solid waste treatment facilities (bioremediation) will incur increased costs from the environmental protection systems required by the Department and from the fee structure. Some small businesses might incur slightly higher disposal costs for some wastes (such as construction/demolition) as a result of the prohibition against siting landfills in sensitive hydrogeological environments, and application of Subtitle D criteria to C & D landfills which receive waste from the "commercial" waste stream. Small businesses needing to implement a cleanup of petroleum contaminated soils

under DEQ's Environmental Cleanup Program (ORS 465 or 466) would benefit from decreased permit costs.

### Large Business

Large businesses would also be affected in the same way as the general public and small businesses. A large business wanting to site a new solid waste bioremediation treatment facility would be subject to the \$10,000 application processing fee, and the per-ton solid waste disposal fee once the facility is operating.

### Local Governments

Many local governments own or operate MSWLFs. They will be subject to appreciably increased costs for operation, environmental monitoring, closure and post-closure care, etc. (see 1. above). They may determine that it is more cost-effective for them to close the MSWLF before October 9, 1993 (when most Subtitle D criteria become effective), and establish a transfer station to transport the waste to a larger, regional site (where that is feasible). Although smaller communities may be able to meet the Subtitle D "small landfill exemption" criteria, costs of operation will still increase because of remaining requirements such as daily cover, up-front financial assurance, etc. This will likely result in increased landfill rates (where rates are charged), and/or higher budgets for solid waste management.

### State Agencies

- DEQ. The Department will have to devote increased efforts to implementing Subtitle D requirements, such as providing technical assistance to MSWLF owners and operators. Additional MSWLFs will close, causing an increase in administering that permit action, and new transfer stations will need to be permitted. DEQ rules and procedures are being modified to conform with Subtitle D, and a State Implementation Plan is being submitted to EPA for approval. The Department's current budget includes 24.3 FTE in the solid waste program. DEQ is preparing a legislative budget decision package for five additional FTE to provide direct technical assistance to local governments for solid waste planning and reduction. The fee clarifications in the proposed rule are estimated to provide less than \$10,000 in additional revenue annually. These additional positions would be funded from the existing solid waste disposal ("tipping") fee.

- Other Agencies. As generators of solid waste, other state agencies would be affected by modestly increased collection service rates as increased MSWLF costs are passed on to users.

ATTACHMENT B - 5

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal  
for  
Revision of Solid Waste Rules to Adopt Federal Criteria  
for Municipal Solid Waste Landfills ("Subtitle D")

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The proposed rule would incorporate, by reference, federal criteria for municipal solid waste landfills (40 CFR Part 258, "Subtitle D"). The federal criteria set minimum standards for location, operation, design, corrective action, financial assurance, closure and post-closure care of municipal solid waste landfills (MSWLFs). The rule would also establish a requirement for secondary leachate collection systems in certain MSWLFs. It would prohibit siting of landfills in certain sensitive hydrogeological environments. It would establish design and operation standards for certain solid waste treatment facilities (for bioremediation of contaminated soils). It would incorporate into rule other changes determined to be necessary to protect the environment and public health, and to facilitate administration of the Department's solid waste program.

The federal location criteria for MSWLFs are not significantly different from those in existing DEQ rule.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes  X  No      

a. If yes, identify existing program/rule/activity:

Solid waste permits: solid waste disposal site siting, design, operation, remedial action, and closure and post-closure care.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes X No \_\_\_\_\_ (if no, explain):

c. If no, apply the following criteria to the proposed rules.

Staff should refer to Section III, subsection 2 of the SAC document in completing the evaluation form. Statewide Goal 6 - Air, Water and Land Resources is the primary goal that relates to DEQ authorities. However, other goals may apply such as Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 11 - Public Facilities and Services; Goal 16 - Estuarine Resources; and Goal 19 - Ocean Resources. DEQ programs or rules that relate to statewide land use goals are considered land use programs if they are:

1. Specifically referenced in the statewide planning goals; or

2. Reasonably expected to have significant effects on

a. resources, objectives or areas identified in the statewide planning goals, or

b. present or future land uses identified in acknowledged comprehensive plans.

In applying criterion 2. above, two guidelines should be applied to assess land use significance:

- The land use responsibilities of a program/rule/action that involves more than one agency, are considered the responsibilities of the agency with primary authority.
- A determination of land use significance must consider the Department's mandate to protect public health and safety and the environment.

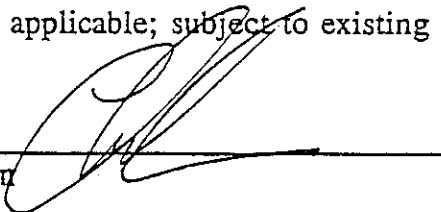
In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

The proposed rules affect where solid waste facilities may be sited which is directly related to land use. The rules also govern design, operation and closure of such facilities to prevent pollution of air and ground and surface waters. Such pollution would also directly affect land use at the site and at locations surrounding the solid waste facility.

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

Not applicable; subject to existing land use compliance and compatibility procedures.

Division



Intergovernmental Coord.

*oberto L/g*

Date

11-4-92

ATTACHMENT C

State of Oregon  
Department of Environmental Quality

Memorandum

Date: January 19, 1993

**To:** Environmental Quality Commission  
**From:** Deanna Mueller-Crispin, Hearings Officer  
**Subject:** Report on Public Hearing held in Portland, Oregon on January 19, 1993, on Revision of Solid Waste Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

On January 19, 1993, a public hearing was held in Portland, Oregon on proposed amendments to the Department's solid waste management rules to adopt federal criteria for municipal solid waste landfills ("Subtitle D").

The hearing was opened at 10 a.m. and closed at 10:25 a.m.

**Number of Persons Participating:**  
(Sign-up sheets available upon request)

- 9 People attended the hearing.
- 3 People gave oral testimony.
- 1 Person submitted written testimony.

**Summary of Oral Testimony:**

1. Ed Martiszus of Vernonia, Oregon -- Commented that he had been involved in the siting process which considered the Bacon Road landfill, which was stopped after his investigations of permitted chemicals going into the St. Johns landfill. He said that the St. Johns landfill is highly contaminated, with corroding barrels of chemicals. He said it was polluting the groundwater and surface water in Columbia Slough. He felt that three feet of dirt on top of the landfill is insufficient protection. He questioned why St. Johns is not a superfund site. He supported more pre-cycling to keep chemicals out of landfills, and use of alternative types of chemicals. He said that acceptable siting of disposal sites are elusive, even in eastern Washington where the Hanford site is leaking chemicals. He noted that leachate collection systems clog up, and a lot of landfills with liners are leaking. He said we have to change our outlook and stop just dumping chemicals into the ground.

2. Maria Gross, representing Woodward-Clyde Consultants -- Commented on the part of the rule dealing with solid waste treatment facilities. She was concerned that the rule applies to all facilities treating soil on-site, including cleanup of underground storage tanks. Concerning applicability of the permit fee to these facilities, she said the size of the treatment facility should be clarified, especially for facilities treating less than 7,500 tons of contaminated soil. Some of these projects are quite small (maybe only 10 tons), and the entire project cost might be less than the proposed permit application processing fee (\$5,000).
  
3. Dennis O'Neil, representing METRO -- Read written testimony prepared by Bob Martin, Solid Waste Director for METRO. He cited several examples in the proposed rule which would require solid waste permittees to follow "guidance provided by the Department, and any other standards and policies as specified by the Department," and in one case, "current technological practices" as well. He expressed concern that such unspecified present and future guidelines, standards and policies would have the effect of rule without going through a thorough public notice and review process required by State law. He recommended that the Department either remove all reference in the rule to "technological standards, policies and guidance," or keep those references but modify them with "if adopted by rule." Neither alternative would prevent the Department from issuing guidance and rule interpretations as in the past, but such actions would be clearly "subordinate" to adopted rules. Mr. O'Neil noted that in general METRO supports the rule changes. He also commented on the above remarks of Mr. Martiszus, noting that a lot of studies had been done on the St. Johns closure. Mr. Martiszus' uninformed remarks suggested that he was not familiar with these studies, according to Mr. O'Neil.

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State of Oregon  
Department of Environmental Quality

Memorandum

Date: January 25, 1993

**To:** Environmental Quality Commission  
**From:** Deanna Mueller-Crispin, Hearings Officer  
**Subject:** Report on Public Hearing held in Springfield, Oregon on January 20, 1993, on Revision of Solid Waste Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

On January 20, 1993, a public hearing was held in Springfield, Oregon on proposed amendments to the Department's solid waste management rules to adopt federal criteria for municipal solid waste landfills ("Subtitle D").

The hearing was opened at 10 a.m. and closed at about 10:30 a.m.

**Number of Persons Participating:**  
(Sign-up sheet available upon request)

- 3 People attended the hearing (in addition to 3 DEQ staff).
- 2 People gave oral testimony.
- 1 Person submitted written testimony.

**Summary of Oral Testimony:**

1. Mike Turner, Manager of Lane County Waste Management Division -- Presented written testimony. His primary concern regards the State's proposal to add a requirement for a secondary leachate collection system in addition to the federal requirement for a composite landfill liner. He commented that he understands the theoretical usefulness of such a system: to assure that any leaks in the composite liner would be detected and collected. His concern is that the costs of adding additional environmental protections may exceed the real value of these additional systems. He would be more likely to support the requirement if there were more demonstrated evidence of its need, and if its installation did not increase landfill cost. He noted that the cost was likely much higher than DEQ and EPA estimates; varying local conditions drive the actual compliance costs.
2. Leslie Antkowiak, Technical Assistant with Lane County Waste Management Division -- Ms Antkowiak asked for guidelines on what the Department judges to be "large quantities" of oil wastes (in OAR 340-93-190(1)(c), Wastes Requiring Special

Memo To: Environmental Quality Commission  
January 25, 1993  
Page 2

Management). That would give operators a better idea of DEQ's concerns and expectations. In the same subsection, she asked the Department to also give more examples of "petroleum wastes." She also asked for a more specific definition of what constitutes a "special waste" in 340-94-040(11)(b)(J) Special Waste Management Plan. She noted that the wastes listed in the rule are quite diverse, and the criteria are vague. She mentioned that Lane County has developed its own definition for special waste.

In a general discussion after the close of the formal hearing, a comment was made that in general operators prefer to have more specific guidance (such as for special wastes) so they can be more confident about complying with the spirit of the rule.

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Date: January 20, 1993

**To:** Environmental Quality Commission

**From:** From Terence Hollins, recorder, through Charles Donaldson, Hearings Officer

**Subject:** Report on Public Hearing held in Bend, Oregon on January 20, 1993, on Revision of Solid Waste Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

On January 20, 1993, a public hearing was held on proposed amendments to the Department's solid waste management rules to adopt federal criteria for municipal solid waste landfills ("Subtitle D").

In addition to 3 members of DEQ Headquarters staff and 2 members of DEQ Central Region staff, the sign in sheet showed that 10 members of the public attended the hearing.

**Hearing Introduction:**

Charles Donaldson called the hearing to order at 10:00 a.m. He described the purpose of the hearing, and offered attendees the opportunity to provide recorded testimony. No one wanted to provide testimony. Some participants suggested they would provide written comments at a later date. Mr. Donaldson then opened the hearing to informal discussion lasting approximately two hours.

**Summary of Discussion:**

Mr. Donaldson gave an overview of the origin and purpose of Subtitle D, noting several key points such as the effect of Subtitle D only on municipal landfills, the flexibility allowed "approved States", and the necessity that approved States incorporate Subtitle D into their rules. He mentioned that Oregon would likely become an approved State.

Questions and concerns from the audience which lead to discussions included "approved States" flexibility with regard to landfill liners (but not daily cover), secondary leachate collection systems equal in standards to regional landfills, prohibition of landfills in gravel pits or alluvial aquifers, enforcement of Subtitle D through citizen suits, a more gradual implementation of the rules for small landfills, landfill operating records, requirements to expand a small landfill under Subtitle D. Pat Vernon of DEQ's Solid Waste Reduction and Planning section answered questions regarding the definition of recyclables. The discussion ended with a brief overview of DEQ's impending regional reorganization.

Date: January 25, 1993

To: Environmental Quality Commission

From: Deanna Mueller-Crispin, Hearings Officer

Subject: Report on Public Hearing held in Medford, Oregon on January 21, 1993, on Revision of solid Waste Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

On January 21, 1993, a public hearing was held in Medford, Oregon on proposed amendments to the Department's solid waste management rules to adopt federal criteria for municipal solid waste landfills ("Subtitle D").

The hearing was opened at 10:10 a.m. and officially ended at 10:40 a.m. Informal discussion with DEQ staff answering questions continued until about 11:45 a.m.

**Number of Persons Participating:**

(Sign-up sheet available upon request)

- 11 People attended the hearing, in addition to 2 DEQ staff.
- 2 People gave oral testimony.
- 1 Person submitted written testimony.

**Summary of Oral Testimony:**

1. Irvin R. Whiting, Josephine County Commissioner -- Commented that he was extremely concerned about the financial effect on Josephine County of various landfill requirements being imposed by DEQ. In the County there are two landfills facing closure: the Kerby site, with temporary closure costs of \$1 million, and Merlin with \$17 million for permanent closure by the year 2000. Josephine County is facing a \$13 million budget shortfall, and is getting no money from the State or Federal government to help with the landfill situation. He commented he can't understand how the State can require certain actions by a certain date, given the County's financial situation. He said the County wants more time to implement landfill monitoring to keep from being forced into bankruptcy.

2. Sue Densmore, General Manager of Rogue Waste Systems -- Commented that the Subtitle D rules have been discussed for over three years, and are comprehensive enough to cover every situation that could happen in the US. The EPA rules include the current, most trusted technology available to assure protection of the groundwater. The EQC should adopt them as is without adding additional restrictions (such as the secondary leachate collection system proposed by DEQ) without proof that such additional restrictions are necessary. Much study went into development of Subtitle D suggesting that a single composite liner is sufficient protection for the environment. To her knowledge, there is no new substantial science or technology which would change that original rule. This should be handled on a site by site basis, due to particular geography or hydrogeological findings. It may be necessary to require additional leachate collection to protect against a leak, but a blanket requirement should not be written into rule. Another concern is several proposed regulations that would require compliance not only with the proposed rules, but also with standards or policies which the EQC may or may not adopt as rules. This action is not allowed in statute, and should not be attempted in rulemaking.

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Date: January 25, 1993

**To:** Environmental Quality Commission

**From:** Deanna Mueller-Crispin, for Wayne Thomas, Hearings Officer

**Subject:** Report on Public Hearing held in LaGrande, Oregon on January 21, 1993, on Revision of Solid Waste Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

On January 21, 1993, at 10 a.m. a public hearing was held on proposed amendments to the Department's solid waste management rules to adopt federal criteria for municipal solid waste landfills ("Subtitle D"). The hearing was formally closed at 10:10 a.m.

**Number of Persons Participating:**

(Sign-up sheet available upon request)

8 People attended the hearing.

0 Persons gave oral testimony.

**Summary:**

No verbal testimony was given during the hearing. No written testimony was presented. Wayne Thomas, hearings officer, conducted the formal hearing, and then opened the meeting to informal discussion which continued for about an hour and forty-five minutes. During that discussion, some concern was expressed over the economics of complying with the Subtitle D regulations. There were questions on how one-time disposal of materials such as construction wastes and petroleum contaminated soils will be affected.

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## ATTACHMENT D

### SOLID WASTE MANAGEMENT RULE REVISIONS INDEX OF WRITTEN COMMENTS RECEIVED DURING PUBLIC REVIEW

A summary of all written and oral comments received on the rules is contained in Attachment E, together with Department responses. The following persons submitted written comments on the proposed rules:

1. Betty J. Mills, Executive Director, Mid-Columbia Economic Development District, 502 East 5th, Annex B, The Dalles OR 97058
2. Bob Martin, Solid Waste Director, METRO, 2000 SW First Avenue, Portland, OR 97201-5398
3. Richard L. Angstrom, Managing Director, Oregon Concrete & Aggregate Producers Association, Inc., 707 13th St SE #115, Salem, OR 97301
4. Michael Turner, Manager, Lane County Waste Management Division, 125 East 8th Avenue, Eugene, OR 97401
5. Bill Olson, Administrator, Josephine County Environmental Health Department
6. Coos County Board of Commissioners, Coos County Courthouse, Coquille, OR 97423
7. Bryan Johnson, Director of Engineering, Finley Buttes Landfill Company, P.O. Box 61726, Vancouver, WA 98666
8. Gary Goodman, President, Prineville Disposal, Inc., P.O. Box J, Prineville, OR 97754
9. Dennis O'Neil, Senior solid Waste Planner, METRO, 2000 SW First Avenue, Portland, OR 97201-5398
10. Kathleen Robertson, Vice President, Thomas/Wright, Inc., 7190 SW Fir Loop, Tigard, OR 97223
11. Bob Wilson, R. S. Director, Environmental Health Division, Benton County Health Department 530 NW 27th Street, Corvallis, OR 97330-4777
12. Max Brittingham, Executive Director, Oregon Sanitary Service Institute, 1880 Lancaster Drive NE, Suite 120, Salem, OR 97305

13. Dave Leonard, Director of Public Works, Douglas County, Courthouse, Roseburg, OR 97470
14. Marc Aprea, Director, External Affairs, Browning-Ferris Industries, 150 Almaden Boulevard, Suite 900, San Jose, CA 95113
15. Doug Coenen, Division President and General Manager, Oregon Waste Systems, Inc., 18177 Cedar Springs Lane, Arlington, OR 97812
16. Paula vanHaagen, Acting supervisor, Solid Waste Program, US Environmental Protection Agency Region 10, 1200 Sixth Avenue, Seattle, WA 98101
17. Bob Hyland, President/Owner, Gypsum Wallboard Recycling, 11120 SW Industrial Way, Bldg #9, Tualatin, OR 97062
18. Teresa Penninger, Aviation Planner, Aeronautics, Oregon Department of Transportation, 3040 25th Street SE, Salem, OR 97310-0100

The following person submitted written comments after the close of the official public comment period, which ended at 5:00 p.m., January 27, 1993:

Bart Barlow, Cascade Earth Sciences, Ltd., P.O. Box 2737, LaGrande, OR 97850  
(received February 2, 1993).

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ATTACHMENT E

State of Oregon  
Department of Environmental Quality

Memorandum

Date: February 2, 1993

To: Environmental Quality Commission

From: Deanna Mueller-Crispin

Subject: Summary of Public Comments and Response to Comments, Solid Waste Management Rule Revision

Public hearings were held on the proposed rules on January 19, 20 and 21, 1993. A total of 41 people attended the hearings. Seven persons gave oral testimony. Eighteen written comments were received by the Department. One additional written comment was received after the close of the public comment period. Below is a summary of the comments received and the Department's responses. (Unless otherwise stated, the comment was made by only one person.)

Comment 1: Proposed requirement for secondary leachate collection system

COMMENT: (Comments received from one county solid waste director, one county public works director, the Board of Commissioners from another county, two private disposal companies, the Oregon Sanitary Service Institute and an engineering firm) This proposed requirement should be eliminated or substantially revised. The federal "Subtitle D" rules were developed after much research, and are generally considered to be sufficient to protect the environment -- specifically, groundwater. The respondents are not aware of any substantial new science that would change that assessment. The Department's rules should not exceed the federal standards (for a single composite liner) by automatically requiring a secondary leachate collection system of all new municipal solid waste landfill cells. Any decision to exceed federal standards should be made by the Legislature, not by the Department. The proposal reflects the Department's philosophy of zero tolerance of risk; the appropriate stance is to balance cost and benefit. Additional protection against leaching may be necessary in some cases, but this should be determined by the Department on a case-by-case basis, depending on the hydrogeology and other physical circumstances of the individual landfill. The Department's proposed requirement would considerably increase the cost of operating a landfill without a proven corresponding increment in groundwater protection. An alternative would be to increase DEQ staff so they could

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February 2, 1993

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monitor landfill construction (to increase confidence in the quality of liners).

In addition to the above, one private landfill operator supported the secondary leachate collection system requirement as "reasonable." The director of a county environmental health division also supported the requirement as a "cost-effective means of engineering landfills for the highest level of protection in the most critical areas.

RESPONSE: The Department's reason for proposing the secondary leachate collection system requirement was that the "dry tomb" landfill technology required in the Subtitle D standards has not been proven over time. It is very likely that liners will leak at some time in the future. A secondary leachate collection system is an "early warning device", allowing leachate to be removed before reaching groundwater. A similar system may also serve as a monitoring system when physical characteristics of a site make groundwater monitoring ineffective in detecting leaks. However, the Department agrees that a secondary leachate collection system may not be warranted at all sites. The proposed rule language is being changed to make clear that the requirement is permissive. That is, the Department may require a secondary leachate collection system (or other systems to protect groundwater or enhance monitoring capabilities) if the Department determines the site might pose a significant potential threat to groundwater. This evaluation would be based on the specific characteristics of the site.

Regarding the concern for exceeding federal standards, the latter are meant to be "minimum federal criteria for municipal solid waste landfills" (Summary, 40 CFR Part 258). The Department has a broad mandate to protect the environment, and specifically to ensure non-degradation of groundwater.

Comment 2: Requirements for applicants to comply with unspecified "guidance" provided by the Department.

COMMENT: The Solid Waste Director and the Senior Solid Waste Planner at the Metropolitan Service District, the Oregon Sanitary Service Institute and a private disposal company objected to proposed rule language which would require permit applicants and permittees to comply with "guidance provided by the Department." They commented that this would require compliance with

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unspecified policies and standards which would have the effect of rule without having gone through the public notice and review process required by State law. The Department may properly continue to issue guidance and rule interpretations, but these should be "subordinate" to rule requirements.

RESPONSE: The Department agrees that guidance documents should be used as reference materials. The proposed rule language is being changed to that effect.

Comment 3: Lack of criteria for Department decisions.

COMMENT: A Board of County Commissioners (Coos County) was concerned that the rules allow the Department to impose requirements in addition to the rules, and make other judgment calls without establishing criteria by which these judgments would be made. They state that the Department should meet stringent criteria in making its regulatory decisions.

RESPONSE: This comment is closely related to Comment 2. The removal of language that appears to give Department guidance the force of rules should respond to this concern.

Comment 4: Local governments cannot afford to comply with some of these regulations, and need more time.

COMMENT: A Josephine County Commissioner testified that DEQ-imposed requirements for landfill monitoring and eventual closure were an extreme financial burden on his county. He wanted more time to implement these requirements, and asked whether DEQ could provide financial assistance. Other persons also expressed concern about the additional cost of operating a landfill that complying with Subtitle D requirements will impose.

RESPONSE: The proposed rules do not have an effect on the landfill closure requirements in Josephine County. Those actions are required under existing Department rules for groundwater protection and release of hazardous substances. The Department recognizes that remedial measures to protect the environment are often expensive. In a separate rulemaking action, the Department is currently establishing criteria for how local governments and other affected parties may use funds in the Agency's Orphan Site Account.

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The Orphan Site Account was established to clean up certain municipal solid waste landfills which have released hazardous substances into the environment. Persons interested in those criteria are encouraged to participate in that rulemaking (OAR 340 Division 122).

The federal standards for municipal solid waste landfills apply whether or not DEQ adopts them as rule. The Department is not proposing new requirements which would increase costs for municipal solid waste landfill operators above Subtitle D costs. The Department is no longer proposing to require a secondary leachate collection system of all new municipal solid waste landfill units (which would have increased costs an anticipated \$.30 to \$.50 per ton of solid waste), and instead will address that issue on a case-by-case basis. See Comment 1.

Comment 5:           Concern about 340-96-050, Solid Waste Treatment Facilities and associated fees.

COMMENTS:

1) Applicability. A consultant commented that the rule appears to apply to all solid waste treatment facilities including cleanup activities such as underground storage tanks where in-situ soil remediation techniques are being used.

2) Amount of fee. The application fee of \$5,000 seems excessive, especially when the whole cost of cleanup may be less than \$5,000. The size of the treatment facility should be clarified, and sites smaller than 7,500 tons/year should have a lower fee structure. A county environmental health division director and an economic development district also commented that the \$10,000 application fee (for a treatment facility processing over 7,500 tons/year) is too high. The former commenter suggested a fee comparable to fees for transfer stations, as the scope of designing and siting such a facility and its potential environmental impacts are more at the level of a transfer station or material recovery facility. Such a high fee will discourage centralized bioremediation facilities, which may be preferable to scattered on-site treatment attempts. The latter commenter also noted that this will limit the number of waste treatment facilities developed in sparsely populated communities.

February 2, 1993

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**RESPONSES:**

1) Solid waste permits are not required for underground storage tank cleanups which are regulated under the Underground Storage Tank program or the Environmental Cleanup Division. Only sites required to obtain a solid waste permit are subject to solid waste permit fees. A "treatment facility" is one that receives waste from another site for treatment, rather than being established on a specific contaminated site in order provide a one-time on-site cleanup.

2) In general, fees have their basis in DEQ's cost of regulation. The application processing fee of \$5,000 (receiving less than 7,500 tons of solid waste a year) or \$10,000 for new landfills was established under separate rulemaking (adopted April 23, 1992). The fee schedule was established after extensive involvement with an outside task force and the Solid Waste Advisory Committee. Solid waste treatment facilities (such as biological soil treatment facilities and thermal desorption units) require the same engineering effort to approve environmental controls and related Department review as does a landfill. The current rulemaking would codify the Department's policy of including them in the same application fee category as landfills. In order to be economically feasible, a solid waste treatment facility generally is designed to receive wastes from an area broader than just a local community.

Comment 6: Clarification of petroleum wastes.

COMMENT: OAR 340-93-190(1)(c), Wastes Requiring Special Management, requires operators of a solid waste disposal site wanting to dispose of "large quantities" of petroleum wastes to have procedures in a Special Waste Management plan. DEQ should clarify what it considers a "large quantity," and should give more examples of petroleum wastes.

RESPONSE: The proposed rule clarifies that 30 gallons or more of petroleum-based waste would trigger this requirement. This is approximately half of a 55-gallon drum. The following examples of petroleum-based waste are proposed to be added: used oil filters, oil-absorbent materials and tank bottoms. The rule would also require "all recoverable liquid oils" to be removed before landfill disposal. Methods outlined in 40 CFR 261.4(b)(5) for oil removal from oil filters will be considered sufficient to meet this requirement. The Department is proposing to delete the example of "greases,"

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since they are recyclable and their landfilling should not be encouraged.

Comment 7: Clarification of "Special Wastes"

COMMENT: OAR 340-94-040(11)(b)(J) establishes requirements for a Special Waste Management Plan. It lists types of wastes which would trigger the requirement for such a Plan. Some specific wastes are listed, which are very diverse (e.g. "large dead animals," "industrial wastes"). The Plan requirement may also be triggered by other wastes not specifically listed, if they are "hazardous or difficult to manage by virtue of their character or large volume." This is vague. It would be preferable to have a more specific definition of "special waste."

RESPONSE: The Department requires a Special Waste Management Plan if certain wastes specifically identified in OAR 340-93-190 are received. Such a Plan is also required for other wastes which because of their unique characteristics may cause design or operational problems if not properly managed. The Department determines which other wastes may cause problems together with the permittee on a case-by-case basis, since every landfill has unique characteristics. A "large quantity" of a certain waste, such as yard debris, might cause a settling problem if received at one landfill while the same quantity of waste would not be problematic at another site, depending on its design and operation. The Department proposes to reword and add other generic categories of concern to OAR 340-94-040(11)(b)(J) to provide additional guidance to permittees.

Comment 8: State flexibility for landfills in small communities

COMMENT: "Small communities" are defined by EPA as having under 10,000 population or disposing of 20 tons of solid waste a day. This figure seems arbitrary. However, DEQ should encourage using the Subtitle D "small community exemption" when no proven groundwater pollution problem exists. In general, DEQ should exercise flexibility and apply regulations on a site-by-site basis so as not to discourage landfills in small communities east of the Cascades.

RESPONSE: The "small community exemption" is part of the federal criteria. It would relieve landfills (receiving less than 20 tons of solid waste daily and

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meeting other criteria) of certain requirements such as compliance with federal landfill design standards and groundwater monitoring. DEQ solid waste staff will work with such landfills to help them with this exemption.

Comment 9: Construction and demolition landfills

COMMENT: Construction and demolition (C and D) landfills will be required to meet all criteria for municipal solid waste landfills (MSWLFs). The Department should consider allowing C and D landfills to operate under conditions separate from those for MSWLFs. Also, a distinction should be made between "construction and demolition wastes" and woodwastes such as landclearing debris, stumps, brush, limbs and similar materials and perhaps clean lumber. A permit exemption should be allowed for these types of waste, to facilitate separating them out so they would not have to be landfilled. Alternative disposal might include chipping or burning. (See also Comment 39)

RESPONSE: C and D landfills are required to meet MSWLF criteria only if they receive "domestic solid waste," that is, wastes generated from residences and/or commercial and institutional wastes. Most C and D landfills do not fit into that category. The criteria in OAR 340 Division 95, Land Disposal Sites Other than Municipal Solid Waste Landfills, apply to most C and D landfills. The Department does not believe it is appropriate to remove the woodwastes mentioned above from the definition of C and D waste. Woodwastes have the potential to cause groundwater pollution if not properly disposed of. If a disposal site operator wishes to separate out such woodwastes for recycling or other disposal methods, this is not prohibited by the rule. This activity should however be included in the facility's operations plan.

Comment 10: Removal frequency for putrescible solid waste

COMMENT: The seven-day removal frequency for putrescible materials should not be deleted from the rule. A specific number of days is necessary to encourage removal at "regular intervals."

RESPONSE: With increased emphasis on waste reduction and recycling (including backyard composting), some households may not generate enough

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waste to justify an every-week garbage collection. The Department would like to leave local governments which in general franchise solid waste collection the flexibility to establish whatever "regular" collection schedule is appropriate for their local situation.

Comment 11: Definition of "clean fill"

COMMENT: A suggestion was made to add "inert substances when approved by DEQ" to the definition of "clean fill" (at 340-93-303(10)).

RESPONSE: If a material is "clean fill," no solid waste permit is required for its disposal. The proposed rule establishes a procedure to apply for a solid waste permit exemption for inert substances that are similar to "clean fill." Such a determination is always made on a case-by-case basis. The Department believes that adding the proposed language to the definition of "clean fill" could be confusing, since DEQ does not give blanket "approvals" for other inert substances. The Department needs to maintain control over the disposal location of materials other than those specifically defined as "clean fill."

Comment 12: New prohibition against siting landfills in sensitive hydrogeological environments

COMMENTS: The following comments were received (from two different commenters):

- 1) It is not clear in the rule whether C and D landfills currently under permit but operating in "sensitive hydrogeological environments" may continue operations.
- 2) The restriction on landfills in gravel pits should be deleted. It is too specific. A site with similar geology and ground water conditions to a gravel pit *could* be considered for a landfill site, while a gravel pit site could not.
- 3) Interpretation of the criteria in the restriction (e.g. how far "above" an aquifer is of concern? what is "sufficient" natural protection?) could be ambiguous.
- 4) The appropriateness of siting a landfill at any site should be evaluated on



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site-specific conditions. The Department's regulations should remain flexible enough to permit consideration of all sites and future technological changes.

**RESPONSES:**

- 1) Sites under current permit would be allowed to continue current operations until the permit expired, or the permittee requested a permit expansion. At that time the situation would be reviewed.
- 2) The Department believes there is justification for treating the two sites differently. The configuration of a pit excavated to remove gravel or sand is not normally compatible with engineering design required of a landfill.
- 3) The Department intends to develop guidance to interpret these criteria.
- 4) In general, gravel pit design is incompatible with subsequent use as a landfill (see 2. above). Gravel pits tend to be located near urban areas where aquifers are likely to be used now or in the future for potable water supplies, and need a high degree of protection.

Overall, the Department believes the prohibition is warranted to protect the waters of the State, and that the criteria are justifiable. Opportunity is provided in the rules to demonstrate that a proposed landfill can be safely sited in a gravel pit.

Comment 13:       Definition of "sharps"

COMMENT: The definition of "sharps" (340-93-130(71)) states that glass tubes that could be broken are "sharps," but IV tubing without needles is not considered a sharp. Does that mean that a plastic syringe without a needle is also not a sharp?

RESPONSE: No. The definition includes "syringes," without regard to what they are made of. This definition is from statute (ORS 459.386).

Comment 14:       Lack of definition of "residential solid waste"

COMMENT: The term "residential waste" is used often, but not defined. It

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should be defined.

**RESPONSE:** The term "residential waste" is used once in the proposed rules, in the definition of "domestic solid waste" (340-93-030(28)): "Domestic solid waste" includes, ... but is not limited to, residential (including single and multiple residences) ... wastes, as defined in ORS 459A.100..." The Department believes that inclusion of the phrase, "single and multiple residences," adequately defines the term.

Comment 15: Ash from incinerators

**COMMENTS:**

1) The definition of "domestic solid waste" excludes ash received at an ash monofill from an energy recovery facility. Ash received at a monofill from an incinerator not connected to an energy recovery facility should also be excluded from this definition. The composition of both categories of ash is the same, and there is no reason to treat them differently.

2) OAR 340-93-190(2) requires ash to be disposed of at an ash monofill. Because not all waste can be burned, this would cause a community with an incinerator to have two disposal sites: an ash monofill, and a municipal solid waste landfill. This results in more landfills, and is inconsistent with the policy in OAR 340-93-010 to provide "efficient" solid waste disposal.

**RESPONSES:**

1) "Domestic solid waste" is defined in statute (ORS 459A.100(2)). This definition excludes "waste received at an ash monofill from a resource recovery facility" (emphasis added). The statutory definition is for purposes of assessing the per-ton solid waste disposal fee. The proposed rules applying to "municipal solid waste landfills" (OAR 340 Division 94) specifically state that "ash monofills," without distinction as to the origin of the ash, would be subject to the requirements in this Division (340-94-001(1)). That is, all ash monofills are regulated similarly.

2) Ash from incinerators has a relatively high pH. This tends to bind the metals to the ash. Municipal solid waste produces a more acidic (lower pH)

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leachate. Co-disposing such materials with ash lowers the ash pH and increases the solubility of the metals contained in the ash. This increases the possibility that the metals will be leached out. This is the technical basis for separate (monofill) disposal of ash.

In reviewing this proposed provision, the Department noted that the language as presented for public comment would have required ash from incinerators which are not "disposal sites," such as hospital incinerators, to go to monofills. These incinerators produce very small quantities of ash. The Department did not intend to require separate disposal of ash from facilities that are not, by statute, "disposal sites." OAR 340-340-93(2) is being modified to reflect that intent.

Comment 16: Letter Authorizations

COMMENT: The language in 340-93-050(4) authorizing issuance of Letter Authorizations implies that this would be a long-term authorization. This seems to conflict with 340-93-060 which limits Letter Authorizations to six months.

RESPONSE: OAR 340-93-050(4) specifies that any Letter Authorization shall be issued in accordance with 340-93-060. Therefore the six month limitation applies.

Comment 17: Lack of explanation of "substantially alter..."

COMMENT: OAR 340-93-070(3)(e) requires a feasibility study to "substantially alter, expand or improve a disposal site." There is no explanation of what those terms mean.

RESPONSE: The Department's Landfill Application Permit Instructions provide guidance on when a feasibility study is required.

Comment 18: Financial assurance requirements for local governments

COMMENT: None of the financial assurance options in OAR 340-94-140(3)(a)&(c) appears to address the unique status of local governments. The Department should develop financial assurance criteria for public entities.

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RESPONSE: As the commenter noted, the EPA anticipated developing special financial assurance requirements for local governments. They have not yet issued this guidance. In the meanwhile, current rule (OAR 340-94-140(3)(c)(G)) allows the Department to approve alternative forms of financial assurance that provide an equivalent level of security. The Department has worked and will continue to work with local governments on a case-by-case basis to establish acceptable and reasonable financial assurance for landfill closure and post-closure care.

Comment 19: Separate rule Division for non-municipal land disposal sites

COMMENT: Is there a need for a separate Division (95) for non-municipal land disposal sites? Division 95 is nearly identical to Division 94 (applying to municipal solid waste landfills), except for adoption of Subtitle D criteria. Division 95 should be changed to reflect the differences between municipal and non-municipal landfills. An alternative would be to use Division 94 for both, noting some specific exemptions for non-municipal sites.

RESPONSE: The Department pondered this issue in developing the proposed rules. The Department's decision was that it is clearer for the regulated community to have separate Divisions. Even though most of the rule language is identical in both Divisions, there are some major differences, such as applicability of the federal criteria. We expect additional differences to evolve over time. These will be easier to accommodate if the regulations are in separate Divisions. The existing language of OAR 340 Division 61 which applies to all categories of land disposal site has been incorporated into Division 95 with very little change.

Comment 20: Identifying other permit requirements

COMMENT: OAR 340-93-070(3)(c) requires an applicant for a solid waste permit to "identify any other necessary permit" and include a copy. In some cases other permit requirements may not be completely known, or may not be applied for until construction plans are developed. The subsection should be changed to "identify any other known or anticipated permits..."

RESPONSE: The Department agrees, and is making the change.

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Comment 21: "Watertight" storage bins

COMMENT: OAR 340-93-210(2)(b)(A) requires storage bins for solid waste to be watertight. This is an unreasonably difficult standard for these containers which receive wear and tear in being moved about. The standard should be changed to the same standard as that for storage vehicles, namely: "Storage bins...shall be designed and maintained to minimize leakage or spillage."

RESPONSE: The Department believes it is reasonable to require storage bins to be "watertight." Public health will not be protected if storage bins are "designed...to minimize leakage." The design standard of solid waste storage bins is to be watertight.

Comment 22: Collection and transfer vehicles

COMMENT: OAR 340-93-220(1)(a) requires solid waste collection and transfer vehicles to be constructed, loaded and operated to prevent leaking or other means of solid waste escaping from the vehicle. Same comment as Comment 21. "Prevent" should be replaced by "minimize."

RESPONSE: The rule language tracks state law which requires the Environmental Quality Commission to pass rules governing "construction, loading and operation of vehicles used in performing solid waste collection service to prevent the contents thereof from dropping, sifting, leaking or escaping onto public highways." (emphasis added)(ORS 459.045(1)(c)) Local jurisdictions rely on Department rule to assist in enforcing requirements that prohibit leaking of materials onto public highways. The Department does not believe the proposed change is warranted.

Comment 23: Approval of landfill "closure"

COMMENT: The provisions for Department approval of landfill closure in OAR 340-94-120(4) presumably apply to final closure at a site, rather than to incremental capping activities. The word "final" should be inserted before "closure" in this section.

RESPONSE: All the rules on closure of municipal solid waste landfills will

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likely be revised again later this year, if the Oregon Legislature passes the Department's proposed legislation granting it additional authority to implement Subtitle D requirements. In addition, the Department is revising its Landfill Permit Application Instructions which may require additional changes in a number of rules, including those for closure. The Department's philosophy in developing the proposed rules was to keep existing requirements for those parts that we assume will have to be changed soon. The Department believes it makes sense to address the proposed change in future rulemaking.

Comment 24: Wastes unacceptable at non-municipal land disposal sites

COMMENT: OAR 340-95-020(2) specifies that non-municipal land disposal sites may receive only "permitted" wastes. These acceptable wastes must be specifically approved by the Department either in the permit, operations plan or otherwise in writing. It is important that the operations plan also explicitly identify which wastes are not acceptable. OAR 340-95-020(3), Operations Plan, should be rewritten to require listing of unacceptable wastes. This would ensure clarity on this issue.

RESPONSE: The Department believes that clarity is best achieved by listing "permitted" wastes. Any waste not "permitted" is, pursuant to the proposed rule, not acceptable. The Department believes that any attempt to list "unacceptable" wastes could have the opposite effect from that desired by the respondent, in that it is impossible to list every possible waste that might be "unacceptable." Moreover, if such a list were attempted, landfill operators might rely on it when some unlisted and unanticipated category of waste arrived. The operator might conclude that if it wasn't on the "unacceptable" list, it could be disposed of. Currently, a landfill operator must rely on the list of "permitted" wastes, and request approval from the Department before other wastes may be received, following the procedure specified in 340-95-020(2).

Comment 25: Location of waste disposal sites in the vicinity of airports

COMMENT: Oregon Aeronautics (Oregon Department of Transportation) commented that the proposed sections on Location Restrictions for municipal landfills and non-municipal land disposal sites should include guidelines regarding the development of such sites in the vicinity of airports. The

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Department should give full consideration to incorporating into its rule guidelines on siting landfills from the Federal Aviation Administration Advisory Circular 150/5200-33. This would insure protection of public health and welfare (by decreasing the probability of bird strikes).

RESPONSE: The FAA Advisory Circular landfill location criteria state that a landfill should not be allowed to operate within certain distances of airports. The criteria further state that if an existing landfill within those distances cannot be closed, it should be operated in accordance with federal regulations. The Subtitle D federal criteria, proposed to be adopted by reference in this rulemaking, include location restrictions for airport safety (40 CFR Part 258.10). These criteria are substantially equivalent to the criteria in the FAA Circular. The Department's existing solid waste rules require landfills to be operated in a manner that will not increase the likelihood of bird/aircraft collisions. The Department believes that the rule as proposed substantially meets the FAA Circular's guidelines.

Comment 26: Gypsum waste wallboard

COMMENTS:

1) Waste wallboard is 100 percent recyclable, and therefore should be prohibited from landfilling when there is a transfer station in the area which takes wallboard. Gypsum wallboard should be added to OAR 340-93-040(3), Prohibited Disposal.

2) Gypsum waste wallboard is not an inert substance and therefore should not be used in any agricultural land application without extensive research. It contains many additives such as foaming agents, dispersants, fungicides, preservatives, etc.

RESPONSES:

1) The Department, absent statutory mandate, cannot prohibit materials from being landfilled on the basis that they are recyclable. Therefore waste wallboard cannot at this time be added to the list of wastes whose disposal is prohibited.

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2) Persons wishing to use solid wastes for land application must demonstrate to DEQ that the application constitutes a beneficial use (providing a real benefit, either to tilth, pH, micronutrients, etc.). The applicant must determine application rates which do not adversely impact the waters of the state. Use of gypsum for land application would have to go through that process which requires chemical analysis of the waste proposed for land application. The Department relies on these analyses to make its determinations rather than developing a list of wastes which may or may not be land applied (except that wastes listed in the Prohibited Disposal rule are also excluded from landspreading).

Comment 27: Concern about additional regulatory requirements

COMMENT: Care must be taken in imposing additional regulations. Only so many dollars are available for essential functions. More regulatory requirements will also increase DEQ's workload, and further backlog DEQ's slow response time creating a disservice to the public.

RESPONSE: Most of the new requirements stem from federal regulations. Most of the other additions to the rule (such as the requirement for a Special Waste Management Plan) are already Agency policy and are just being codified in rule.

(The following comments were all received from the Environmental Protection Agency, Region X:)

Comment 28: Open burning

COMMENT: OAR 340-94-040(2) prohibits open burning of solid waste, but allows open burning before July 31, 1996 at permitted landfills which have a variance. Open burning is illegal under 40 CFR 257.3-7(a) and is prohibited in Subtitle D at 40 CFR 258.24(b). EPA cannot approve a solid waste regulation that permits open burning. All State regulatory and statutory shortcomings must be remedied by October 9, 1995 or the State loses partial approval and no longer can take advantage of the flexibility in the federal Subtitle D criteria. In order not to jeopardize approval status by EPA of Oregon's solid waste permit program, it is recommended that DEQ's rule be



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changed to prohibit open burning with no exceptions.

**RESPONSE:** The Department agrees, and is changing the section correspondingly. The Department will put any landfill that continues to open burn under an enforcement order.

Comment 29: Financial assurance

**COMMENTS:**

1) OAR 340-94-100(3) allows the Department to exempt from the financial assurance requirement any municipal solid waste landfill that stops receiving waste before October 9, 1993. In order to qualify for the federal exemption from financial assurance, a landfill must also complete final cover within six months. The second condition must be added to receive the federal exemption.

2) The federal criteria require closure and post-closure costs to be adjusted annually to account for inflation. This requirement would be clearer to owners and operators if it were included in section 340-94-100(4). For regional landfills, the requirement for annual adjustment should be specified to avoid confusion with the required evaluation of the financial assurance plan every five years.

**RESPONSES:**

1) The Department agrees, and is adding the six-month condition.

2) Financial assurance is one area in which the Department is seeking increased authority from the 1993 Legislature to allow the state to carry out the federal regulatory program. The Department expects to receive this authority, after which it will be necessary to further revise the solid waste rules to incorporate the changed requirements. The Department prefers to revise these financial assurance requirements at that time. However, the Department is adding mention of the annual requirement to the Notes at the end of 340-94-140 and 340-94-150.

Comment 30: Land application of sewage sludge

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**COMMENT:** Land application of sewage sludge must comply with 40 CFR 257 and the Clean Water Act, section 405. It is not clear in the Department's rule whether Oregon's current regulations comply with the federal requirements.

**RESPONSE:** After subsequent contact with EPA Region 10 staff, it was clarified that EPA's concerns with the rule under consideration apply to sewage sludge disposed of in a MSWLF. When that happens, sewage sludge must comply with all Subtitle D regulations. In addition, DEQ rules require a Special Waste Management Plan for sewage sludge received at a MSWLF, unless special provisions for such disposal are otherwise approved by the Department. EPA noted that a new federal rule is expected to be promulgated soon concerning land application of sewage sludges; landspreading of sewage sludges in Oregon will have to comply with provisions in that rule.

Comment 31: Definition, "industrial solid waste"

**COMMENT:** The definition of "industrial solid waste" excludes hazardous wastes regulated under ORS 465 and 466. The exclusion should also refer to RCRA Subtitle C, since it is broader.

**RESPONSE:** The Department agrees, and is making the change.

Comment 32: Definition, "leachate"

**COMMENT:** Oregon's definition of "leachate" should include "miscible" to correspond to the federal definition.

**RESPONSE:** The Department agrees, and is making the change.

Comment 33: Definition, "vectors"

**COMMENT:** The Oregon rule defines "vectors" as an agent transmitting diseases "from one person or animal to another." The federal definition is broader, and includes the concept of transfer of disease to persons from animals. Oregon's definition should be revised to be comparable.

**RESPONSE:** The Department agrees, and is making the change.

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(The following comments were all received from Browning-Ferris Industries, Pacific Region:)

Comment 34: Adoption of "Subtitle D" rules by reference: state flexibility

COMMENT: If the federal "Subtitle D" rules are adopted by reference (as in the Department's proposed rule), there is potential for confusion or inconsistent application. There are many references to the ability of "the director of an EPA approved state" to exercise performance-based flexibility provisions. The Department should expressly state how it will interpret or use these "flexibility" provisions, such as the establishment of alternative schedules.

RESPONSE: The Department intends to exercise its flexibility on a case-by-case basis. DEQ has begun to provide guidance to landfill operators on how it will implement the Subtitle D criteria, including guidance for how permittees may apply for approval in areas where flexibility is allowed. Guidance will continue to be provided as the Department develops procedures and policies. For some provisions, the Department is developing priority schedules for demonstration of compliance. See Response to Comment 8.

Comment 35: Standards "no less stringent than Subtitle D"

COMMENT: A "stringency" provision should be added to the rules on Letter Authorizations (340-93-060), Variances and Permit Exemptions (340-93-080), and the waivers allowed a "low-risk" disposal site (340-93-070(4)). This provision should specify that these procedures will not be used with regard to municipal solid waste as well as for industrial and construction and demolition waste, to allow any requirement less stringent than Subtitle D requirements.

RESPONSE: OAR 340-94-020(3) (which applies to municipal solid waste landfills) specifies the Department will exercise its authority to grant variances, exceptions and waivers in a manner consistent with Subtitle D criteria. The Department will add "Letter Authorizations" to this section.

Comment 36: Industrial, non-hazardous wastes should be disposed of at facilities complying with Subtitle D standards

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**COMMENT:** The Subtitle D criteria should be expanded to include management of industrial, non-hazardous waste.

**RESPONSE:** The Department does not have a mandate to extend Subtitle D requirements to industrial waste. However, the Department is requesting approval from the 1993 Legislature for two staff positions to perform an assessment of industrial waste generated in Oregon and its associated environmental risks. Recommendations for any needed regulatory changes would be made as a result of that study.

Comment 37: Financial assurance requirements for corporate entities

**COMMENT:** The Department should adopt a revised financial test to establish a corporate guarantee mechanism for financial assurance that is truly cost-effective.

**RESPONSE:** The Department has relied on federal guidance in establishing its financial mechanisms for financial assurance. Since the Department is adopting the federal criteria, it would be inappropriate to develop a financial test different from that in those criteria.

Comment 38: Clarification of "practicability" in federal corrective action criteria

**COMMENT:** The Department is requested to clarify the meaning of "practicable capability" in the federal rule on corrective action.

**RESPONSE:** It is not appropriate to address this issue in this rulemaking, as "corrective action" is one the areas for which the Department is requesting increased authority from the 1993 Legislature in order to fully implement Subtitle D criteria.

Comment 39: Standards for landclearing debris and woodwaste landfills

**COMMENT:** The Department should consider a separate permitting and regulatory mechanism for landclearing debris and woodwaste landfills which receive only uncontaminated and chemically untreated materials. (The commenter submitted proposed rule language.)

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**RESPONSE:** The Department's proposed new Division 95 applies to location, operation and design of such landfills. Site-specific requirements are determined for each facility, pursuant to the Department's mandate to protect the environment and public health. The Department does not believe the separate new standards as proposed by the commenter are needed at this time.

Comment 40: Open burning

**COMMENT:** The Oregon regulations should prohibit, or at a minimum significantly restrict, the open burning of solid waste.

**RESPONSE:** See Comment 28 and the Department's Response.

Comment 41: Gas monitoring

**COMMENT:** The gas monitoring requirements in OAR 340-93-040(5) should be revised to ensure consistency with the New Source Performance Standard for certain new and existing municipal solid waste landfills. These standards are expected to be issued by EPA in the next several months.

**RESPONSE:** The Department cannot revise its rules to meet a federal standard which has not yet been issued.

Comment 42: "Medical waste"

**COMMENT:** The Department should delete its proposed new subsection on disposal of "medical waste" (OAR 340-93-190(1)(d)(C)). It appears that this regulation would remove many materials from "infectious waste" regulations and hence from any requirements for treatment or decontamination. This is likely inconsistent with OSHA requirements.

**RESPONSE:** ORS 459.386 defines which wastes are regulated as "infectious wastes" in Oregon and thus require special procedures for handling, transportation, disposal, etc. Not all "medical" wastes are "infectious waste." The proposed rule subsection cited above specifically applies to only those medical wastes which are not regulated by state law as hazardous or "infectious" waste. It would thus not remove any "infectious waste" from any requirements for treatment or decontamination. It creates no conflict with

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OSHA regulations since they do not cover waste disposal.

Comment 43:           Restriction on disposal of certain out-of-state wastes

COMMENT: Proposed OAR 340-93-040(4) applies to out-of-state solid waste disposed of in Oregon. It provides that if the state of origin restricts the disposal of such waste, the restriction shall also apply to disposal of that waste in Oregon. Federal courts have consistently invalidated such provisions.

RESPONSE: The rule language tracks Oregon statute (ORS 459.055(9)). It creates a "level playing field" for wastes which must be specially handled in other states when they are disposed of in Oregon.

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## SUMMARY OF FINAL RULE REVISIONS

The following is a list of revisions proposed in the final rules that occurred following the public review process. Rule changes noted here are either a result of public comment or are technical corrections resulting from internal staff review.

Language referring to "guidance provided by the Department" was removed from the following sections:

p. A-14, OAR 340-93-070(3)(a)

p. A-16, OAR 340-93-080(2)

p. A-18, OAR 340-93-130(1)

p. A-20, OAR 340-93-140(1)

p. A-31, OAR 340-94-030(1)

p. A-32, OAR 340-94-040(1)

p. A-37, OAR 340-94-060(1)

p. A-56, OAR 340-95-010(1)

p. A-57, OAR 340-95-010(4)(b)

p. A-57, OAR 340-95-020(1)

p. A-62, OAR 340-95-030(1)

340-93-030(28), p. A-4

Subsection (c), "Source separated recyclable material, or material recovered at the disposal site," has been removed from the exemptions to the definition of "domestic solid waste." Source separated recyclable materials are regulated as solid waste. [Note: the phrase has been restored to the exemptions to Domestic solid waste in 340-97-120(5)(f). See below.]

340-93-030(39), p. A-5

The phrase "or under Subtitle C of the federal Resource Conservation and Recovery Act" has been added to the definition of "industrial solid waste," at the suggestion of the Environmental Protection Agency (EPA).

340-93-030(46), p. A-6

The word "miscible" has been added to the definition of "leachate" at the suggestion of EPA.

340-93-030(81), p. A-9

The phrase "to humans or" has been added to the definition of "vector" at the suggestion of EPA.

340-93-040(4), p. A-10

Minor change in wording of requirement to regulate disposal of out-of-state wastes in Oregon as they are regulated in the state of origin. Tracks anticipated statutory change.

340-93-060, p. A-12

Wording describing issuance of a Letter Authorization has been changed to "short-term operation of a disposal site." This clarifies that the site may operate only for a limited amount of time.

340-93-070(3)(c), p. A-14

Wording change in application requirement to include any other permits. Responds to comment that applicant may not always know all other necessary permits at the time of application for a solid waste permit.

340-93-170(3)(a), p. A-22

Reinstated language in existing rule, specifying what a minimum alternate performance standard must be met by a landfill wanting to receive cleanup materials contaminated with hazardous substances, before having to meet other criteria in subsection (3)(d) of this rule.

340-93-190(1)(d), p. A-24

Subsection describing Oil Wastes rewritten to be more specific ("30 gallons" instead of "large quantities") and add more examples of petroleum-bearing wastes.

340-93-190(1), p. A-25

Section on "asbestos" was moved to become subsection (d) in section (1), clarifying that asbestos must be included in a Special Waste Management Plan in order to be deposited at a solid waste disposal site.

340-94-001(3), p. A-30

Phrase added to clarify that municipal solid waste landfills which cease taking waste before October 9, 1993 must also complete installation of final cover within six months in order to meet the federal exemption stated in that section.

340-94-020(3), p. A-31

"Letter Authorizations" added to the list of Department actions which will be exercised consistent with Subtitle D criteria.

340-94-040(2), p. A-32



Open burning prohibition changed to remove references to variances.

340-94-040, p. A-32

Section on Surface Drainage Control renumbered to section (5) which is a more logical location.

340-94-040(5), p. A-33

Reference to federal criteria corrected.

340-94-040(9), p. A-33

"Procedures" added to the sixth line to be consistent with the previous sentence.

340-94-040(1), p. A-33, and 340-95-020(14), p. 61

The sections on Access Control were moved from 340-94-060 and 340-95-030, respectively ("Design Criteria"), and added to the rule on "Operating Criteria" as part (10) and (14), respectively, where they better fit.

340-94-040(11)(b)(J), p. A-35 and 340-95-020(3)(j), p. A-59

These paragraphs have been reorganized to improve readability, and additional clarification given to waste characteristics which would require a Special Waste Management Plan, in response to public comment.

340-94-040(11)(c), p. A-35

The section on Leachate was renumbered from 340-94-040(3) and moved under 340-94-040(11), requirements in addition to Subtitle D. This is a more appropriate location, since it contains some requirements not covered in Subtitle D.

340-94-060(6), p. A-39

Part (7), Secondary Leachate Collection System requirements, has been replaced by a new part (6), Additional Requirements to Protect or to Monitor Potential Threats to Groundwater. This is in response to public comment which questioned the need and cost-effectiveness for a blanket secondary leachate collection system requirement. The new rule specifies that this will be evaluated on a site-by-site basis.

340-94-100, p. A-42

Phrase added to clarify that municipal solid waste landfills which cease taking waste before October 9, 1993 must also complete installation of final cover within six months in order to be exempt from federal financial assurance requirements. Added at the suggestion of EPA.

340-94-140 and 340-94-150, pp. A-54 and A-55

Comment added to the Notes at the end of these rules, that the federal criteria require financial assurance costs to be adjusted annually. Added at the suggestion of EPA.

340-95-020, p. 60

Section on Surface Drainage Control has been renumbered from (9) to (7) to move to a

more logical location.

340-96-040(1), p. 86

The phrase "except composting facilities" was added to clarify that the rule does not apply to those facilities.

340-97-120(5)(f), p. 96

"Source separated recyclable material" was reinstated into this subsection to specify that it is not subject to the per-ton solid waste disposal fee. [See note on 340-93-030(28) above.]

Note: Changes were also incorporated into OAR 340-97-120(5) and (6) relating to a \$.13 per ton fee for the Orphan Site Account. These changes were adopted by the Environmental Quality Commission on December 11, 1992.

changes.res

1992. SOLID WASTE ADVISORY COMMITTEE  
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Bob Martin, Director of Solid Waste  
Metropolitan Service District  
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221-1646

Rick Paul  
16240 SE Baxter Road  
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761-3801

Craig Starr, Management Officer  
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Administration Building  
3040 North Delta Highway  
Eugene, OR 97401  
341-6907 FAX 687-8799

Kathy Thomas  
Thomas Wright Inc.  
1340 SW Bertha Boulevard  
Portland, OR 97219  
246-4293

## ATTACHMENT G

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

### Rulemaking Proposal for Revision of Solid Waste Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

## Rule Implementation Plan

### Summary of the Proposed Rule

The proposed rule would incorporate, by reference, federal criteria for municipal solid waste landfills (40 CFR Part 258, "Subtitle D"). The federal criteria set minimum standards for location, operation, design, corrective action, financial assurance, closure and post-closure care of municipal solid waste landfills (MSWLFs). Owners and operators of existing MSWLFs are affected, as well as persons wanting to establish MSWLFs in the future. It would prohibit siting of landfills in certain sensitive hydrogeological environments. It would establish design and operation standards and clarify fees for solid waste treatment facilities (for bioremediation of contaminated soils). It would also clarify solid waste fees for transfer stations, material recovery facilities, composting facilities and exempt treatment of petroleum contaminated soils from the Letter Authorization processing fee under certain conditions.

### Proposed Effective Date of the Rule

The rule is proposed to take effect immediately upon adoption by the Environmental Quality Commission and upon filing with the Secretary of State.

### Proposal for Notification of Affected Persons

The Notice of Proposed Rulemaking was sent to all solid waste permittees, owners and operators, as well as to city and county governments. Department Solid Waste and Regional staff have spent much time informing municipal solid waste landfill permittees of federal Subtitle D requirements, and helping them understand their options for compliance. This work will be continued as the federal requirements are phased in.

### **Proposed Implementing Actions**

DEQ is completing a State Implementation Plan for submittal to the Environmental Protection Agency (EPA) to receive "approval" for Oregon's solid waste permit program. We expect to receive "partial approval" from EPA by October, 1993, when most of the Subtitle D requirements become effective. The application includes eastside and westside implementation strategies. EPA approval will allow the DEQ Director considerable flexibility in applying the federal criteria to Oregon MSWLFs.

The Attorney General has identified certain deficiencies in Oregon law in meeting the federal solid waste regulations. DEQ is sponsoring proposed legislation to the 1993 Oregon Legislature that would ensure compliance with EPA Subtitle D Regulations, including strengthening active oversight of closed landfills and financial assurance for site closure. If passed by the Legislature, these requirements would then be incorporated into the solid waste rules in Fall 1993.

Beginning October 9, 1993, operators of existing MSWLFs will be required, by the federal regulations, to make substantial changes in landfill operations, including daily cover, screening for hazardous waste, and recordkeeping. DEQ solid waste staff will provide individual technical assistance to these operators to help them meet these requirements. A number of MSWLFs are expected to cease operations before October 9, 1993 to avoid operating under Subtitle D requirements. DEQ staff has been working with operators of these MSWLFs and local government officials to help them identify their best options for solid waste management.

It is envisioned that small rural landfills which cannot meet Subtitle D requirements will be placed under an enforceable Order to allow for a phased decision-making process leading to upgrade or closure.

### **Proposed Training/Assistance Actions**

The new Subtitle D regulations were the subject of an all-day workshop for DEQ solid waste and regional staff in January, 1992. Implementation of Subtitle D regs will be an agenda item at the all-Solid Waste staff quarterly meeting this spring. We will continue to seek opportunities to make presentations in appropriate "customer" forums such as the Solid Waste Association of North America, the Association of Oregon Counties, and the National Solid Waste Management Association. Staff will continue to work one-on-one with the regulated community in developing implementation plans for individual MSWLFs. This will include development of Stipulated Orders to phase out open burning at the few small MSWLFs which have variances to temporarily allow such burning.

State of Oregon  
Department of Environmental Quality

Memorandum

Date: February 16, 1993

**To:** Environmental Quality Commission

**From:** Deanna Mueller-Crispin, Hearings Officer

**Subject:** Written Comments, Proposed Amendments to Solid Waste Management Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

Attached are copies of all written comments received during the public comment period on the solid waste rulemaking. They are in the order listed in Attachment D of the staff report for Agenda Item D for the March 5, 1993 EQC meeting.

Note: Written comments from Bart Barlow of Cascade Earth Sciences, Ltd., are also attached, although they were received after the end of the public comment period.

Attachments

Mid-Columbia Economic Development District

502 East 5th, Annex B • The Dalles, OR 97058  
(503) 296-2266

RECEIVED  
DEC 31 1992

December 28, 1992

Oregon Department of  
Environmental Quality  
811 S. W. 6th Avenue  
Portland, Oregon 97204

Hazardous & Solid Waste Division  
Department of Environmental Quality

DEC 31 1992

Hazardous & Solid Waste Division  
Department of Environmental Quality

Re: Revision of Solid Waste Rules

Dear Sirs:

Mid-Columbia Economic Development District serves three Oregon rural counties - Hood River, Wasco and Sherman. They have a total population of 40,450 and only 20,590 in the labor force. In the labor force 8.8% are unemployed according to the Oregon Labor Statistics.

Several of the revisions in the solid waste rules to adopt the Federal criteria for municipal solid waste landfills will seriously impact these sparsely populated communities. Will there be fines imposed? A \$10,000 permit application processing fee and an annual fee of \$.21 per ton of waste received will limit the number of waste treatment facilities to be developed without assistance from the agencies requiring these fees. Why does this application processing fee need to be \$10,000. The local tax payers are unable to add these additional taxes to their current burden. Many impacts due to governmental regulations, i.e. safe drinking water act, solid waste landfill requirements, educational mandates, etc. do not appear to have an individual impact but the addition of one after another becomes unbearable for these residents. They decide to move to larger populated communities where the burden can be shared. However, this puts an even greater impact on the remaining local citizenry.

Local governments will be subject to appreciably increased costs for operation, environmental monitoring, closure and post-closure care, etc. as stated in your printed information on page D-6. This will be passed on again to the users. As you suggested the communities may choose to close their facilities and establish a transfer station. There will still be costs just in transition and transportation costs to a new site. The small communities are not exempt when they will still need to provide costs of operation for daily cover, up-front financial assurance, etc.



I would suggest as the enclosed Washington State legislation indicates that no mandates be allowed unless provisions are made to implement them.

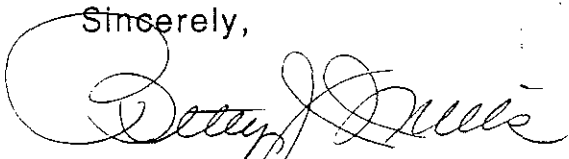
Our office will continue to ask for this provision to allow small communities to grow and become viable, rather than limit their ability for a good quality of life in rural areas of Oregon.

Enclosed also is a summary of increased costs for a small community in Klickitat County that has been required to make changes according to EPA regulations and then additional requirements made the original ones unnecessary. The costs, as you can see, are still being paid by the users at an enormous increase and they are expected to increase even more as the solid waste rulings are implemented.

There has been a change in this community's environment as the citizens move to neighboring communities to live and incur additional transportation costs. They are searching for a balance to allow them to continue their employment in the few choices they have in their small towns. The down side of this change is lower income families are moving to the available homes because their utilities are covered with subsidies from the Federal government. This will limit the ability of this sample community to be solvent as the lower income families are limited in purchasing local goods and services.

Oregon Department of Environmental Quality, like other State and Federal agencies, need to research further the impacts and the ability of small communities to implement the regulations mandated to them especially if they are to be fined on a daily basis for not complying.

Sincerely,



BETTY J. MILLS  
Executive Director

Enclosures

(2) "State personal income" means the dollar amount published as total personal income of persons of the state for the calendar year by the United States department of commerce or its successor agency.

(3) "State tax revenue limit" or "limit" means the state tax revenue limit created by this chapter.

(4) "Taxing district" means those districts included within the term "taxing district" under RCW 84.04.120, as now or hereafter amended.

(5) "State personal income ratio" for any calendar year means the quotient formed by dividing (a) state personal income for the calendar year under consideration by (b) the state personal income for the immediately preceding calendar year. [1980 c 1 § 2 (Initiative Measure No. 62, approved November 6, 1979).]

**43.135.030 State tax revenue limit.** (1) The state tax revenue limit for any fiscal year shall be the previous fiscal year's state tax revenue limit multiplied by the average state personal income ratio for the three calendar years immediately preceding the beginning of the fiscal year for which the limit is being computed.

(2) For purposes of computing the state tax revenue limit for the fiscal year beginning July 1, 1980, the phrase "the previous fiscal year's state tax revenue limit" means the state tax revenue collected in the fiscal year beginning July 1, 1978, multiplied by the average state personal income ratio for the calendar years 1976, 1977, and 1978. [1980 c 1 § 3 (Initiative Measure No. 62, approved November 6, 1979).]

**43.135.040 Taxes, fees, charges to be set—Estimated revenue to be within revenue limit.** Except as provided in RCW 43.135.050, taxes, fees, and charges on persons, property, and activities shall be imposed, levied, or set by the legislature in such a manner that the estimated state tax revenue for each fiscal year of the next biennium will not exceed the state tax revenue limit for that fiscal year: PROVIDED, The legislature may at any time adjust such taxes, fees, and charges for the second fiscal year of the biennium. [1980 c 1 § 4 (Initiative Measure No. 62, approved November 6, 1979).]

**43.135.050 When revenue limit may be exceeded—Conditions.** (1) The state tax revenue limit for any fiscal year may be exceeded in order to meet an emergency as declared by the legislature by two-thirds vote of each house. The legislature, by two-thirds vote of each house, shall set forth the circumstances constituting the emergency and the amount of state tax revenue in excess of the applicable state tax revenue limit necessary to meet the emergency.

(2) Any amount of state tax revenue authorized by subsection (1) of this section in excess of the state tax revenue limit shall be authorized only for the fiscal year in which the vote is taken and/or the next succeeding fiscal year, as directed by the legislature.

(3) Except where the emergency results from a court order, the amount of state tax revenue authorized under subsection (1) of this section in excess of the limit shall not be used in the revenue base used to compute the state tax

revenue limit for subsequent years. [1980 c 1 § 5 (Initiative Measure No. 62, approved November 6, 1979).]

**43.135.060 Prohibition of new or extended programs without reimbursement—Effect of revenue authority and state funding on reimbursement—Transfer of programs—Determination of costs.** (1) The legislature shall not impose responsibility for new programs or increased levels of service under existing programs on any taxing district unless the districts are reimbursed for the costs thereof by the state.

(2) The amount of increased local revenue and state appropriations and distributions that are received or could be received by a taxing district as a result of legislative enactments after 1979 shall be included as reimbursement under this section. This subsection does not affect litigation pending on January 1, 1980.

(3) If by order of any court, or legislative enactment, the costs of a federal or taxing district program are transferred to or from the state, the otherwise applicable state tax revenue limit shall be increased or decreased, as the case may be, by the dollar amount of the costs of the program.

(4) The legislature, in consultation with the office of financial management or its successor agency, shall determine the costs of any new programs or increased levels of service under existing programs imposed on any taxing district or transferred to or from the state.

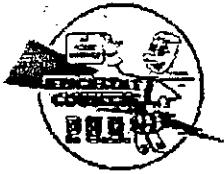
(5) Subsection (1) of this section does not apply to the costs incurred for voting devices or machines under RCW 29.04.200. [1990 2nd ex.s. c 1 § 601; 1990 c 184 § 2; 1980 c 1 § 6 (Initiative Measure No. 62, approved November 6, 1979).]

**Severability—1990 2nd ex.s. c 1:** See note following RCW 82.14.300.

**43.135.070 Priority of principal and interest on state indebtedness—Revenue collected in excess of limit.** The legislature shall, prior to any other appropriation, provide for the payment of the principal and interest of the indebtedness of the state. State tax revenue collected in any fiscal year in excess of the state tax revenue limit for that fiscal year shall be included as part of the state tax revenue for the succeeding fiscal year. [1980 c 1 § 7 (Initiative Measure No. 62, approved November 6, 1979).]

**43.135.900 Severability—1980 c 1.** If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected. [1980 c 1 § 8 (Initiative Measure No. 62, approved November 6, 1979).]

**43.135.901 Effective date—Applicability—1980 c 1.** This act shall take effect on January 1, 1980: PROVIDED, That the first fiscal year for which the state tax revenue limit shall be in effect is the fiscal year beginning on July 1, 1980. [1980 c 1 § 9 (Initiative Measure No. 62, approved November 6, 1979).]



# Public Utility District No. 1 of Klickitat County

1313 S. Columbus, Goldendale, WA 98620  
Phone: 509-773-5891  
Fax: 509-773-4969

*Owned by Those it Serves*

P. O. Box 187, White Salmon, WA 98672  
Phone: 509-493-2255  
Fax: 509-493-1232

December 23, 1992

## KLICKITAT WATER AND SEWER RATES

<u>DATE</u>	<u>WATER RATE</u>		<u>SEWER RATE</u>
	<u>MONTHLY BASE</u>	<u>OVERAGE</u>	
1/83	\$13.00	OVER 4000 GAL \$.50/1000 GAL	\$10.50
1/84	\$18.00	1ST 20,000 GAL \$.50/1000 GAL OVER 20,000 GAL \$.75/1000 GAL	\$12.00
1/86	\$18.00	" "	\$16.00
1/87	"	" "	\$19.00
1/88	"	" "	\$20.00
* 3/91	\$28.00	" "	\$20.00
6/92	"	" "	\$24.00
** 10/92	\$42.00	" "	\$24.00

\* Two wells drilled and a softening plant installed.  
D.O.H. declared the treatment plant taking water from the  
Klickitat River created a health hazard to the water users.

\*\* 6000 feet of water line replaced because of failing pipes

\*\*\* Average monthly useage is \$10 in addition to base rate of water service.

# METRO

2000 SW First Avenue  
Portland, OR 97201-5398  
(503) 221-1646  
Fax 241-7417

**RECEIVED**

JAN 19 1993

**Hazardous & Solid Waste Division  
Department of Environmental Quality**

January 15, 1993

Deanna Mueller-Crispin  
Department of Environmental Quality  
Hazardous and Solid Waste Division  
811 S.W. 6th Avenue, 7th Floor  
Portland, Oregon 97204

Re: Proposed Oregon Administrative Rules 340-94, 95, 96, and 97

Executive Officer  
Rena Cusma

**Metro Council**

Jim Gardner  
Presiding Officer  
District 3

Judy Wyers  
Deputy Presiding  
Officer  
District 8

Susan McLain  
District 1

Terry Moore  
District 2

Richard Devlin  
District 4

Edward P. Gronke  
District 5

George Van Bergen  
District 6

Ruth McFarland  
District 7

Tanya Collier  
District 9

Roger Buchanan  
District 10

Ed Washington  
District 11

Sandi Hansen  
District 12

Dear Ms. Mueller-Crispin:

Under Oregon law, the Oregon Department of Environmental Quality (DEQ), must conduct a thorough public notice and review process including one or more public hearings and review by the Environmental Quality Commission before it issues or modifies Administrative Rules. This public hearing on the proposed revisions in the Oregon Administrative Rules is an example of this process. From time to time, the DEQ issues general or site-specific guidance or rule interpretations. These are legally subordinate to the Oregon Administrative Rules but interpret the Administrative Rules in more detail, apply the rules to specific cases, or simply give guidance before specific rules on a particular subject are adopted.

Among the proposed revisions to the Oregon Administrative Rules 340-94, 95, 96 and 97, several proposed revisions state that landfill owners and operators must comply not only with the listed rules, but also with guidance, standards, or policies of the Department not specified in the rules.

For example:

- < The proposed OAR 340-94-030(1) requires owners and operators of municipal solid waste landfills to follow "guidance provided by the Department, and any other standards and policies as specified by the Department" as well as the location restrictions listed in the rules.
- < OAR 340-95-010(1) requires that owners and operators of non-municipal land disposal sites conform to unspecified DEQ guidance as well as the listed locational standards.
- < OAR 340-94-040(1) and OAR 340-95-020(1), require conformance with specified operating criteria and also "with guidance provided by the Department".

- < OAR 340-94-060(1) requires operators and owners of municipal solid waste landfills to follow not only the design criteria listed in the rules, but also unspecified "guidance provided by the Department and current technological practices", a term which may lack consistent interpretation.
- < OAR 340-95-030(1) requires owners and operators of non-municipal land disposal sites to conform to the listed design criteria and unspecified guidance from DEQ, but excludes current technological practices from the criteria.

The actual wording of these revisions can be interpreted to incorporate into the rule and add to the rule, unspecified present and future guidance, policies, standards, and interpretations of "current technological practices". These would become rules or have to be followed like rules without the public notice, public review, and Environmental Quality Commission review process required by State law.

To avoid dangerous ambiguity, I recommend that a period be inserted after "of this rule" in each of the above-proposed rules and the language about technological standards, policies, and guidance be deleted. An alternative would be to add "if adopted by rule." at the end of each proposed paragraph listed above.

DEQ can continue to issue guidance and rule interpretations as it has in the past. But they will be properly subordinate to the Oregon Administrative Rules themselves until incorporated into these rules after a thorough review and decision by the Environmental Quality Commission, public notice, and comment by all interested parties.

Sincerely,

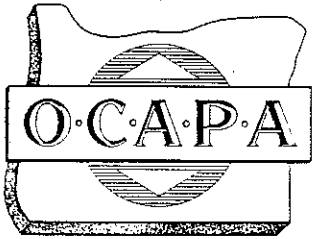


Bob Martin  
Solid Waste Director

BM:do:clk

cc: Rena Cusma, Executive Officer

s:\vmartin\letters\deq0114.ltr



# OREGON CONCRETE & AGGREGATE PRODUCERS ASSOCIATION, INC.

707 13th St. SE #115  
Salem, Oregon 97301  
(503) 588-2430  
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Richard L. Angstrom

**Assistant Director**  
Rebecca Cozart, CAE

**Staff Assistant**  
Dawn Miller

**Legal Counsel**  
Charles R. Schrader

January 19, 1993

Deanna Mueller-Crispin  
Hazardous & Solid Waste Division  
Department of Environmental Quality  
811 SW Sixth Ave.  
Portland, Oregon 97204

**RECEIVED**

JAN 20 1993

**Hazardous & Solid Waste Division  
Department of Environmental Quality**

Dear Deanna:

We appreciate the opportunity to comment on your rulemaking proposal entitled "revision of solid waste rules to adopt federal criteria for municipal solid waste landfills (subtitle D)".

We have reviewed your letter and proposed rules. We have the following comments to offer:

On page five of your Memo, item #1 should have a clarification that this does not apply to "clean fill". The reason for this recommendation is based on the fact that your Memo and attached rules are well-written and comprehensively written in each area. It provides a road map for one to follow throughout the process. By including a brief statement in (1) on page five that clean fill is not included, will continue this philosophy plus avoid confusion at a later date. The same request is made on page seven of your Memo in the second full paragraph.

On page A-3 (10) of the proposed rules, under definition of clean fill, we suggest that you include in the list of clean material inert substances when approved by DEQ. We believe that inert substances would include glass when it is not used for recycling. Sand should be covered under the definitions of soil and rock as long as it is "clean" and not putrescible.

In our reading of the proposed rules, it is not clear what the Department tends to do in cases of existing permits which involve

Deanna Mueller-Crispin  
January 19, 1993  
Page two

filling near aquifers with construction waste debris. At a minimum, we encourage the department to give such operators at least three years to phase out those existing operations or to convert to "clean fill deposits".

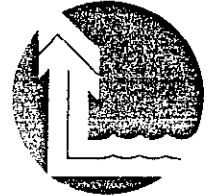
The opportunity to comment on this matter is appreciated. If you have any questions, please do not hesitate to contact me.

Sincerely,



Richard L. Angstrom  
Managing Director

cc: Steven Yett



DATE: January 20, 1993

FROM: Michael Turner, Manager  
Lane County Waste Management Division

SUBJECT: Comments on Proposed Solid Waste Regulation

My comments today are not opposing the adoption, by the state, of the new federal Subtitle D regulations. I feel that it is extremely important that Oregon become an "approved state". I don't necessarily agree with the complete extent of the federal criteria for municipal solid waste landfills but at this there is little point in arguing adopted federal rules. My primary concern here is the state's proposal for adding the requirement for municipal solid waste landfills to incorporate secondary leachate collection systems beneath the federally required composite landfill liner.

I find myself in a somewhat awkward position in that I understand the technical function of the secondary collection system and the rationale for using such a system. At the same time I have a strong aversion to doing something simply because we now have the technology to do it. There ought to be a demonstrated need for requiring the installation of such a system and placing the accompanying increased financial burden on the users of the landfill facility.

When the requirement for installation of composite liners in landfills was introduced and subsequently adopted, a considerable amount of confidence was placed in the integrity of the liner systems and their ability to protect groundwater. We now have a proposal to require a backup system under the composite liner to provide additional assurance that any leaks in the composite liner would be detected and collected. That is a very fine idea and arguing against it is somewhat the old saying of arguing against apple pie and motherhood. But, where do we stop? Where do the costs of adding additional environmental protections to landfill operations exceed the real necessity and value of those additional systems? Do we, in the next few years, add another layer of protection to the already required double to triple layers under landfills just because we have figured out how to do it regardless of any demonstrated need?

The landfills in western Oregon do have the potential of impacting ground water given the current state of their construction. Most of the landfills in western Oregon do not have the even the first level of liner systems installed and we are now proposing that we jump to requiring a second level before there is any clear evidence of need for an additional layer of protection.

As I said earlier, I do understand the theoretical usefulness of the secondary collection system. I know I would be much more supportive of the proposal if there were more demonstrated evidence of their need



and if their installation did not impact landfill cost.

The cost estimates that EPA and the State have done on the impact of the federal regulations and the secondary collection systems certainly do not fit all cases. In each jurisdiction the individual conditions that exist will drive the actual cost per ton for complying with the regulations. To a large extent the time in which a jurisdiction can amortize the additional capital costs associated with compliance is a major factor. Lane County is currently reviewing the financial requirements for compliance and because it is somewhat unlikely that long term financing, bonding as an example, could occur, the cost per ton for compliance appears to fall into the \$10 to \$30 per ton range. I believe it is somewhat misleading for state and federal agencies to claim such low financial impacts when there are so many differing local conditions driving the actual compliance costs.

In a more supportive vein, I want to go on record that the proposal to add additional staff to DEQ for technical assistance to local governments for solid waste planning and reduction is certainly justified. I believe that the general feeling out here among the "fee payers" is that the level of service we receive, for the amount of fees we pay, doesn't always seem comparable. (Lane County is paying \$280,000 + annually) I feel that the additional staff for DEQ will certainly improve the programs within the state.

JOSEPHINE COUNTY  
ENVIRONMENTAL HEALTH DEPARTMENT

DEQ SOLID WASTE RULE HEARING  
MEDFORD  
JANUARY 21, 1993

JOSEPHINE COUNTY RESPONSE

(340-93-050) From my reading of this section of the proposed revisions to Oregon's Solid Waste Rules it looks as though a DEQ Solid Waste Permit will be required for the disposal of construction and demolition waste materials. Clean fill--free from contamination--is exempted from a Permit. Construction and Demolition Landfills will be required to adhere to all design and construction standards of the municipal solid waste landfill.

The definition of the "Construction and Demolition Landfill" refers to a site receiving among other materials debris from the clearing of land, stumps, brush and other similar material.

We recommend a distinction be made between construction/demolition materials and wood wastes such as land clearing debris, stumps, brush, limbs, certain types of vines, slash and similar materials.

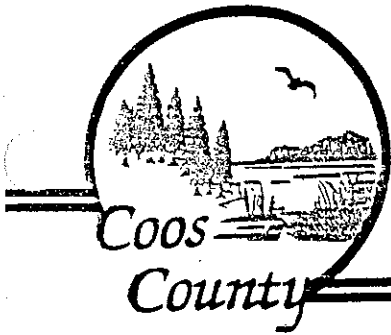
We propose a permit exemption be allowed for these types of waste materials. Untreated and clean lumber/wood products may also fit in this category. Standards could be developed to insure appropriate separation of wood waste materials.

Consideration should be given to allowing Construction and Demolition Landfills to be operated under conditions separate from the Municipal Solid Waste Landfills. Requirements and standards could be developed for environmental protection.

(340-93-210)(3) Removal Frequency: The deletion of the seven day putrescible materials removal frequency is not desirable. This section has been used on numerous occasions and has been very useful. A specific number of days is necessary to encourage putrescible waste removal at "regular intervals."



Bill Olson, Administrator



**BOARD OF COMMISSIONERS**  
**JACK L. BEEBE SR. BEV OWEN GORDON ROSS**

COOS COUNTY COURTHOUSE / COQUILLE, OREGON 97423 / (503) 396-3121 EXT. 224, 225

**RECEIVED**

JAN 22 1993

**Hazardous & Solid Waste Division**  
**Department of Environmental Quality**

January 19, 1993

Environmental Quality Commission  
Attn: Deanna Mueller-Crispin  
Hazardous and Solid Waste Division  
Department of Environmental Quality  
811 SW Sixth Avenue  
Portland, OR 97204

Re: Rulemaking Proposal  
Subtitle D Criteria

Dear Ms. Mueller-Crispin:

Coos County has had the opportunity to review the Department of Environmental Quality's rulemaking proposal dated December 15, 1992. Coos County understands that the primary intent of this proposal is to revise the Department of Environmental Quality's rules to adopt the federal Subtitle D criteria. The Environmental Quality Commission will be considering the proposed rules and public comments during the next few months.

Coos County has several philosophical concerns with the approach taken by the Department in preparing these rules and also comments about specific rules.

It is obvious from the rules that the Department of Environmental Quality's staff does not believe the federal rules adequately protect the environment. Coos County strongly disagrees with this philosophy. The Federal Environmental Protection Agency, with its vast resources and input from the entire country, has developed comprehensive criteria for Solid Waste Disposal Facilities.

Coos County believes the decision to exceed the comprehensive federal criteria should be made by the Oregon Legislature. Decisions of such a significant nature should be made at the highest political levels in the state.

Another significant philosophy throughout the rules is the burden of proof an applicant or permittee must meet in order to establish compliance with the criteria. Coos County believes that the Department of Environmental Quality should also be required to meet the same standard of proof. A number of rules contain provisions allowing the Department of Environmental Quality to impose additional requirements or to make other judgment calls. However, these rules contain no standards that would guide the Department of Environmental Quality's decisions. The Department of Environmental Quality should be required to meet stringent criteria when it makes decisions just as are applicants and permittees.

One rule that should come under very careful EQC review is OAR 340-94-060(7) which requires a secondary leachate collection system. As made clear by Attachment F to the rulemaking proposal, the proposed rule is more a matter of politics than environmental protection. This rule should be eliminated or substantially revised.

The proposed rule is based on two faulty assumptions. First, that all liners will leak and second, that any such leak will contaminate drinking water. Neither assumption is correct. The Subtitle D design criteria is intended to eliminate water contamination from landfills. The proposed rule is not so much a concern that the federal design criteria is inadequate, but relate more to the Department of Environmental Quality's lack of trust in landfill operators. Since the Department of Environmental Quality does not have the staff to adequately monitor construction, more restrictive design criteria is being proposed. A more appropriate approach would be to have the Department of Environmental Quality monitor construction. While increasing the Department's costs, it would reduce the overall costs to taxpayers.

The second flaw with the Department of Environmental Quality's reasoning is that a leak will contaminate underground drinking water. In Coos County's case, the solid waste facility is located in the midst of thousands of acres of forest. Due to distance and topography, there is no realistic chance that a leak would contaminate underground drinking water. To impose costly design criteria where there is no reasonable chance that a leak would contaminate drinking water is totally without merit.

This proposed rule should be eliminated. The existing rule OAR 340-61-040(4)(a) should be retained. If a rule relating to secondary leachate treatment is deemed necessary, the Department of Environmental Quality should be required to prove that it is necessary at a particular site rather than it being an automatic requirement. Such an expensive requirement should not be imposed

unless there is a real need based on site specific conditions.

Turning to specific rules, Coos County notes that the new rules are much more explicit in defining different types of wastes. However, the term "residential waste" is never defined. Since this term is often used in connection with specifically defined wastes, Coos County is unclear why "residential waste" was not defined as well.

The definition of "domestic solid waste" excludes wastes received at an ash monofill from an energy recovery facility. Coos County, which operates an incinerator that is not part of an energy recovery facility, believes this exclusion is too narrow. Ash produced by an incinerator connected to an energy recovery facility is no different from ash produced without energy recovery. This is emphasized by Coos County's plan to add an energy recovery facility that was thwarted by financial considerations. OAR 340-93-030(28)(e) should exclude all waste received at an ash monofill from an incinerator. To do otherwise would create a distinction between two different types of ash based on what happens to the heat after combustion.

OAR 340-93-050(4) authorizes a waiver of certain requirements and the issuance of a Letter Authorization. Its language implies this would be a long term authorization. However, OAR 340-93-060 restricts Letter Authorization to a temporary situation. These two provisions appear inconsistent.

OAR 340-93-070(3)(e) requires a feasibility study to substantially alter, expand or improve a disposal site. There is no explanation or criteria to guide the Department of Environmental Quality or applicants with regards to what "substantially alter, expand or improve" actually means.

OAR 340-93-190(2) requires ash to be disposed of at an ash monofill. Coos County is concerned that the monofill requirement results in more landfills. Obviously, not everything can be burned. In order to deal with such materials, an ash monofill would necessitate a second disposal site. This is inconsistent with the policy in OAR 340-93-010 to provide "efficient" solid waste disposal.

Coos County is extremely concerned about the financial assurance requirements. Specifically, none of the options in OAR 340-94-140(3)(a)&(c) appear to address the unique status of local governments. A County cannot obligate itself beyond the current fiscal year nor can it incur a debt greater than \$5,000. The rules also do not recognize the taxing authority of the County. Coos County suggests that the Environmental Quality Commission direct the Department of Environmental Quality to meet with the

Association of Oregon Counties and the League of Oregon Cities to develop financial assurance criteria for public entities. Please note that the EPA in Section 258.74(f)&(g) anticipated requirements for local governments different from that applied to other entities.

Coos County is unclear of the need for an entire new division for non-municipal land disposal sites (Division 95). While Division 95 does not adopt the federal design requirements, it is otherwise almost identical to Division 94 dealing with municipal solid waste landfills. The proposed rule fails to recognize that non-municipal solid waste landfills are not covered by federal designed criteria because they are different from municipal solid waste landfills. Rather than using the same criteria, the Department of Environmental Quality should revise Division 95 to reflect this difference. At the very least, rather than duplicate much of Division 94, it would be more intellectually honest to simply state that the same criteria apply with specific exceptions.

Finally, Coos County would like to close its comments by asking the Environmental Quality Commission to consider the fiscal realities of the 1990s. Taken in the abstract, the rules may represent ideal requirements for solid waste landfills. However, there are only so many dollars available to provide a variety of essential functions -- solid waste disposal only being one of those functions. Care must be taken not to impose such extensive requirements that would increase the cost of this function to the detriment of other equally essential functions.

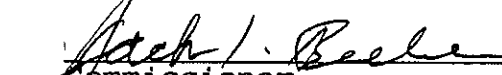
Coos County is also concerned with the addition of more regulatory requirements. This will increase the Department of Environmental Quality's workload. As it is now, the Department of Environmental Quality does not timely respond to submissions by permittees. On more than one occasion, the Department of Environmental Quality has demanded immediate action from the County. However, when the required information is submitted, the Department of Environmental Quality often takes more than a year to respond. Any additional requirements that will further backlog the system will be a disservice to the public rather than an improvement to the environment.


Coos County would like to thank the Environmental Quality Commission for its consideration of these comments. We look forward to the Environmental Quality Commission's actions on the proposed rules.

Environmental Quality Commission  
January 19, 1993  
Page 5

Sincerely,  
BOARD OF COMMISSIONERS

  
\_\_\_\_\_  
Chairman

  
\_\_\_\_\_  
Commissioner

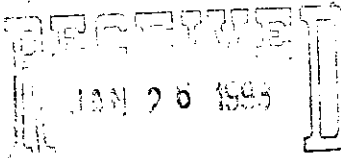
  
\_\_\_\_\_  
Commissioner

cc: Governor Barbara Roberts  
Senator Bradbury  
Representative Whitty  
Representative Tarno



P.O. BOX 61726  
VANCOUVER, WA 98666  
5031288-7844  
206/695-4858  
FAX 206/695-5091

Department of Environmental Quality



January 25, 1993

Department of Environmental Quality  
Hazardous & Solid Waste Division  
811 SW 6th Avenue, 7th Floor  
Portland, OR 97204

Re: Revision of Solid Waste Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

Finley Buttes Landfill Co. has reviewed the referenced proposed rule changes. We found the document to be very comprehensive and can think of no additional items that should be covered. As with all rules, there are always questions of interpretation and it is impossible to write a document that conveys the same meaning to everyone.

The "Secondary Leachate Collection System" proposed requirement dated 12/10/92 is a reasonable requirement that will provide additional protection for groundwater. We have been and will continue to design our landfill to this standard.

The sections on Letter Authorizations and Variations and Permit Exemptions further demonstrates the DEQ policy of working with private industry to handle solid waste in an efficient and environmentally proper manner. We were pleased to see these sections.

Disposal of "Medical Wastes" and "Sharps" continues to be somewhat confusing. Following are some of the questions we have regarding disposal of these materials:

1. The definition for "Sharps" infers that IV tubing without needles is not considered to be a sharp and that glass tubes that could be broken are sharps. May we therefore conclude that a plastic syringe without a needle is not a sharp?
2. Medical waste that we may be asked to receive may be from out of state and would have been disinfected to the standards of that state. If that treatment is equivalent to the requirements of the Oregon Department of Health, may we take that waste into the landfill?

Thank you for the opportunity to comment on these proposed rule changes.

Sincerely,

A handwritten signature in black ink, appearing to read "Bryan Johnson", written over a horizontal line.

Bryan Johnson, P.E.  
Director of Engineering

BJ/nw



(503) 447-5208

January 26, 1993

To: Department of Environmental Quality  
Hazardous and Solid Waste Division  
811 S.W. 6th Ave., 7th floor  
Portland, Or 97204

By way of introductions, my company has operated the Crook County Landfill, permit number 74, since January 1, 1985. The landfill primarily serves the Prineville area, population 5,280 in town and another 5,000 scattered within 20 miles; Prineville is the only incorporated town in Crook County. It is located 5 miles from town, receives approximately 10 inches of precipitation a year, is about 450 feet above groundwater, landfills approximately 17 tons of waste per day, and has one perceived flaw: it lies too close to the airport, although none of the local pilots feel that is a problem.

As the state adopts rules to meet EPA's Subtitle D requirements my overriding concern is that DEQ should recognize the diversity of our state and be site specific, i.e. flexible. In studying the proposed rules these issues need to be addressed:

#### Section 1 - Adopting Federal Criteria for MSW Landfills.

1) Regional landfills appears to be a foregone conclusion with more emphasis on size or location of the community than actual or perceived damage to the environment. Landfills east of the Cascades, regardless of size, pose less threat to groundwater because of low rainfall and deep groundwater. It is no accident that the mega-landfills (Waste Management, Tidewater Barge and RABANCO) are in Eastern Oregon and Washington. If it is good for them, why not us? (given the fact they have money to over-engineer their sites and smaller landfills do not).

2) Small communities by EPA definition are under 10,000 population or 20 tons per day (page 50990 Federal Register, Oct. 9, 1991.), not 5,000 population as stated. This figure seems arbitrary, but at any rate DEQ should encourage small community exemptions when there is no proven pollution problem.

3) I challenge the EPA's figure of \$2.00 per ton average annualized incremental cost for compliance with Subtitle D...it is way too low. And the cost to the average household in rural areas would be much higher because of the number of self-haulers, thereby encouraging illegal dumping which poses a greater risk to the environment.

Section 2 - Requirement for Secondary Leachate Collection Systems.

- 1) Does this apply to small community exemptions? The rule states all MSW landfills.
- 2) Is the technology proven? Does the perceived benefit outweigh the cost?
- 3) Should this not be done on a case by case basis i.e. site specific?

In general I believe that folks in rural areas think differently than folks in urban areas. (I moved here from Portland 16 years ago so I have seen both sides). We tend to be independent and take responsibility for our actions, because we know our neighbors and cannot hide in a crowd. We pride ourselves in using common sense to solve problems and will embrace change if it makes sense. Increasingly we ruralites feel a polarization with urbanites because they are asserting their political will on us. Specifically as it relates to solid waste, why truck it out of one's community to a regional site far away if your own site is adequate and not harming the environment?



Gary Goodman, President  
Prineville Disposal, Inc.

# METRO

2000 SW First Avenue  
Portland, OR 97201-5398  
(503) 221-1646  
Fax 241-7417

January 26, 1993

Deanna Mueller-Crispin  
Department of Environmental Quality  
Hazardous and Solid Waste Division  
811 SW Sixth Avenue, Seventh Floor  
Portland, OR 97204

Executive Officer  
Rena Cusma

Metro Council

Jim Gardner  
Presiding Officer  
District 3

Judy Wyers  
Deputy Presiding  
Officer  
District 8

Susan McLain  
District 1

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George Van Bergen  
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Ruth McFarland  
District 7

Tanya Collier  
District 9

Roger Buchanan  
District 10

Ed Washington  
District 11

Sandi Hansen  
District 12

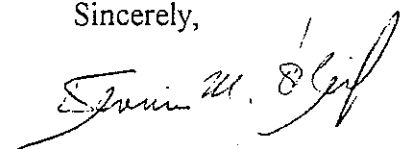
RE: Proposed Oregon Administrative Rules 349-94, 95, 96, and 97

Dear Ms. Mueller-Crispin:

I wish to add proposed OAR 340-93-140 (1) to the specific OAR's cited in Bob Martin's letter of January 15, 1993. For the same reasons he gave in his January 15 letter (attached), I recommend deletion of the phrases "conforming with current technological practices" and "the plans and specifications shall follow the organizational format and include the level of information detail specified in guidance provided by the Department."

Alternatively the phrases could be retained with the addition of "if adopted by rule" at the end of each phrase.

Sincerely,

  
Dennis O'Neil  
Senior Solid Waste Planner

DO:ay

cc: Bob Martin, Director of Solid Waste  
Jim Watkins, Engineering & Analysis Manager

LETTERS\MUEL0126.LTR

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JAN 27 1993

Hazardous & Solid Waste Division  
Department of Environmental Quality

# Thomas/Wright, Inc.

Civil Engineers • Surveyors

THOMAS/WRIGHT, INC.

Civil Engineers • Surveyors

7190 S.W. FIR LOOP

Tigard, Oregon 97223

January 26, 1993

Deanna Mueller-Crispin  
Department of Environmental Quality  
Hazardous and Solid Waste Division  
811 SW Sixth Avenue, 7th Floor  
Portland, Oregon 97204

Department of Environmental Quality

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JAN 27 1993

U S T Compliance Section

Re: Comments on the Proposed Revisions to OAR 340 Division 61 Rules

Dear Ms. Mueller-Crispin:

I have the following comments about the proposed rule changes to OAR 340 Division 61.

340-94-060(7) Secondary Leachate Collection System Requirements

I believe this requirement should be deleted because:

1. The ground water protection rules and other regulations provide the regulatory framework for the DEQ to require secondary leachate collection systems for sites where this approach is appropriate.
2. The DEQ will not have the flexibility to accommodate specific site conditions, such as geology, waste flow, ground water conditions, climatic conditions, and similar considerations, when evaluating proposed landfill designs. This requirement may not be appropriate now for a given site, or in the future with technological changes.
3. This requirement represents an undue economic burden on rural communities in eastern Oregon operating small sites which do not represent a threat to human health and the environment, and have limited financial resources.

340-94-030(4) Sensitive Hydrogeological Environments

I believe this restriction on landfills in gravel and sand pits should be deleted because it will be extremely difficult for the DEQ to apply unambiguously.

1. It is too specific and inconsistent with the nature of the solid waste rules. Numerous other types of site conditions can equally be a problem for landfill siting, yet these are not addressed as specifically as the gravel pit issue. For example: a site with similar geology and ground water conditions as a gravel pit, but which has not been excavated *can* be considered

# Thomas/Wright, Inc.

Deanna Mueller-Crispin  
Department of Environmental Quality  
January 26, 1993  
Page 2

- for a landfill site. The only difference is one site is excavated for borrow and the other was not. What about quarries with highly fractured rock, where the fractures are open and can act as potential migration pathways? And so forth. The ground water protection rules and other regulations provide criteria for the DEQ to evaluate the risk to an underlying aquifer. This additional restriction is duplicative, thus unnecessary.
2. Interpretation of the criteria in this restriction can be extremely ambiguous. For instance, how far above is "above" an aquifer of concern? This requirement will be difficult for the DEQ to apply if so ambiguous.
  3. The appropriateness of siting a landfill at any site should be evaluated based on site specific conditions and should consider the technical aspects of design. Solid waste regulations should remain flexible enough to permit consideration of all sites and future technological changes. The proposed restriction removes that flexibility.
  4. The restriction requires sufficient natural protection above an underlying aquifer. It will be difficult for the DEQ to define sufficient natural protection. Furthermore, if such protection exists, then what is the technical justification for requiring a liner, or even a secondary leachate collection system, at sites located in what DEQ may deem as not sensitive hydrogeological environments?

Please call me if you have any questions or comments.

Sincerely,

Kathleen Robertson, P.E., R.G.  
Vice President

KR/bl

Enclosures

9903-04/DEQ



ENVIRONMENTAL HEALTH DIVISION

Health Department  
530 NW 27th Street  
Corvallis, OR 97330-4777

TTY (503) 757-6835 FAX (503) 757-6899 (503) 757-6841

January 26, 1993

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JAN 27 1993

Hazardous & Solid Waste Division  
Department of Environmental Quality

Department of Environmental Quality  
Hazardous and Solid Waste Division  
811 SW Sixth Avenue, 7th Floor  
Portland OR 97204

Subject: Revision of Solid Waste Rules to Adopt Federal Criteria  
for Municipal Solid Waste Landfills (Subtitle D)

Dear DEQ Staff,

The following are comments regarding the subject rulemaking proposals.

Regarding paragraph 2 of the Fiscal and Economic Impact Statement (Attachment D):

Benton County supports the requirement of a secondary leachate collection system at locations of maximum probability of leaks. This would be a cost effective means of engineering landfills for the highest level of protection in the most critical areas. The proposed 10 to 20 percent coverage for the secondary system appears to be appropriate.

Regarding paragraph 5 of same:

Benton County thinks that a \$10,000 permit fee for a proposed bioremediation facility is exorbitant and that it would be much more suitably charged a permit fee comparable to that of a new transfer station or materials recovery facility for the following reasons:

1. Based on a recent proposal to establish a bioremediation facility within Benton County, it would appear that the scope of planning, designing, siting, operating, and the potential negative impacts on the environment of a bioremediation facility are much more closely at the level of a transfer

Page 2  
DEQ  
January 26, 1993

station or a materials recovery facility than that of a sanitary landfill.

2. The high permit fee will discourage attempts to deal with contaminated soil in a responsible manner. The alternative to a centralized, permitted bioremediation facility is for a scattering of on-site treatment attempts which may not have gone through the same level of scrutiny as that of a permitted facility.

Thank you for this opportunity to comment on the proposed rules.

Sincerely,

*Bob Wilson by me*

Bob Wilson, R. S. Director  
Environmental Health Division



MEMBER  
**NSWMA**  
National Solid Wastes  
Management Association

Our members serve Oregon in collection, recycling and disposal of solid waste

January 26, 1993

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JAN 27 1993  
Hazardous & Solid Waste Division  
Department of Environmental Quality

Deanna Mueller-Crispin  
Department of Environmental Quality  
Hazardous & Solid Waste Division  
811 SW Sixth Avenue  
Portland, OR 97204

Testimony of the Oregon Sanitary Service Institute

on

Proposed Revisions of Solid Waste Rules to Adopt Federal Criteria  
for Municipal Solid Waste Landfills ("Subtitle D").

The Oregon Sanitary Service Institute (OSSI) is a statewide, nonprofit association comprised of approximately 150 privately owned, Oregon based solid waste management companies. Its members collect and process most of Oregon's residential and commercial recyclables and refuse, in addition to operating many of its municipal solid waste transfer stations and landfills.

We would like to compliment the Department on the process that was followed in getting to this point in the rulemaking including the involvement of the Solid Waste Advisory Committee.

We would like to comment on the addition of rules regarding a secondary leachate collection system. Our concern is that there was much study done before the enactment of the New RICRA Subtitle D rules that suggested that a single composite liner was sufficient protection of the environment. To our knowledge, no new substantial science technology has emerged to change the original pre-rule studies. If that is the case, we see no economic or environmental reason to exceed the federal standard.

We are also concerned that several of the proposed revisions unnecessarily require landfill owners and operators comply not only with the proposed rules, but also with standards, policies and guidance that the Department may or may not adopt as rules. This type of action is not allowed in statute and should not be attempted in rulemaking.



Those sections include:

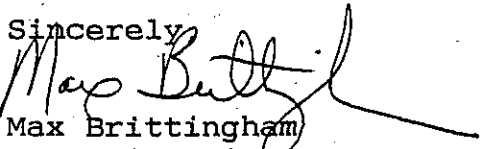
- 1 OAR 340-94-030(1)
- 2 OAR 340-95-010(1) and 020(1) and 030(1)
- 3 OAR 340-94-040(1) and 060(1)

The reasons behind rulemaking requirements such as public notice and public review are well established in Oregon law. Owners and operators of landfills should comply with statutes and rules as they are written and established, but to expect them to comply with unspecified criteria without the open rulemaking process goes beyond what is contemplated.

The Department may still issue rule interpretations and guidance, but they are just interpretations and guidance until incorporated into the rules after public input and examination.

We appreciate this opportunity to participate and comment upon the proposed rules.

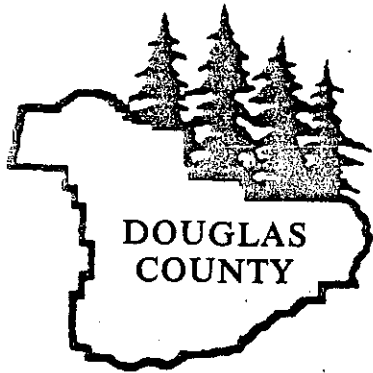
Sincerely,



Max Brittingham

Executive Director

Oregon Sanitary Service Institute



# PUBLIC WORKS DEPARTMENT

Administration  
Room 219 / Courthouse  
Roseburg, Oregon 97470  
(503) 440-4208

Engineering and Construction  
Room 304 / Courthouse  
Roseburg, Oregon 97470  
(503) 440-4481

Operations and Maintenance  
2586 N.E. Diamond Lake Blvd.  
Roseburg, Oregon 97470  
(503) 440-4268

Water Resources Survey  
Room 103 / Justice Building  
Roseburg, Oregon 97470  
(503) 440-4255

January 25, 1993

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JAN 27 1993

*Hazardous & Solid Waste Division  
Department of Environmental Quality*

Department of Environmental Quality  
Hazardous and Solid Waste Division  
811 S. W. Sixth Avenue, 7th Floor  
Portland, OR 97204

Reference: Proposed Revision of Solid Waste Rules  
to Adopt Federal (Subtitle D) Criteria for  
Municipal Solid Waste Landfills

Gentlemen:

In response to your notice of proposed rulemaking regarding the above, please consider the following comments;

1. I strongly support adoption of Federal Subtitle D Criteria and progressing to become an "approved" state. I do not, however, support adoption of more stringent requirements unless they are clearly justified.
2. Requirement of a secondary leachate collection system is not justified in most cases. Requirements by the Department of Environmental Quality as proposed are excessive and geared more toward creating a "level playing field" for all solid waste disposal site owners that expand operations. Frankly, creating a "level playing field" is not an appropriate role for the Department of Environmental Quality. Physical and geophysical site conditions together with consideration of the risk involved should be the only driving forces in determining whether leachate leak detection systems are justified.
3. The proposed rule reflects the Department of Environmental Quality's attitude of zero tolerance of risk. This attitude is neither cost nor environmentally effective. The appropriate attitude should be to strike a balance between cost and benefit. We do not now, and probably never will, have the technical ability to assure

zero risk, at any cost. We can, however, through wise use of competent professionals, arrive at a reasonable balance.

4. I do not agree with the estimates of cost for construction of a secondary leachate collection system as presented in the proposed rule. My experience, as an operator, indicates that likely average costs will be more than ten times that opined by the Department of Environmental Quality.
5. The proposed rule allows the Department of Environmental Quality to approve alternate technologies in lieu of secondary leachate collection systems. I believe the language too broad and that it will allow unreasonable denial of otherwise acceptable alternate technologies. Accordingly, I recommend the following alternate practices, with specificity:

Department of Environmental Quality may approve alternative design or operating practices if the owner or operator demonstrates that such design and operating practices, together with location characteristics, as defined below;

- A. Will prevent the migration of leachate into the groundwater or surface water as effectively as the liners and leachate collection and removal system;
- B. Will allow for detection of leaks of leachate through the top liner of a composite liner system at least as effectively;
- C. For existing landfill expansions, will not allow leachate to migrate along a path outside of that area currently occupied by existing unlined cells in which an existing leachate collection system has been installed; and
- D. Historical water quality sampling and analysis for the site is of sufficient quantity and quality to allow its use as baseline data for evaluation of leachate characteristic changes that may be associated with a leak from new cell construction.

OR

- E. The landfill cells can be monitored with a discrete series of groundwater monitoring wells specific to the expansion area.

LOCATION CHARACTERISTICS:

1. The hydrogeologic characteristics of the facility and surrounding land;
  2. The volume and physical and chemical characteristics of the leachate;
  3. The quantity, quality and direction, of flow of ground water;
  4. The number, location and quality of existing monitoring wells;
  5. The proximity and withdrawal rate of the ground water users;
  6. The availability of alternative drinking water supplies;
  7. The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water, and whether the ground water is currently used or reasonably expected to be used for drinking water;
  8. Public health, safety, and welfare effects; and
  9. Practicable capability of the owner or operator.
  10. The above notwithstanding, if potentially contaminated ground water can be intercepted and treated, an exception to the leak detection requirement may be granted.
6. I am concerned with the Department of Environmental Quality's proposal to add five full time employees to Solid Waste staff as a result of this proposed rule. The tendency of bureaucracy is to grow to fully utilize existing staff, administering more programs in the process until staff is overloaded, then hire more staff. Goal succession is a natural occurrence that must be guarded against by ever vigilant management.

Although the current Department of Environmental Quality solid waste staff that I deal with are second to none in any of the many states in which I have worked, they are over worked by an organizational philosophy that literally requires they scrutinize every detail of each

professional consultant's work product. This results in doubling costs because work is done at direct owner expense, then re-done at public expense. The Registration Act requires that consultants in responsible charge of these projects be licensed professionals. I strongly encourage the Department of Environmental Quality adopt a professional attitude and rely on the professional consultants to fulfill their project responsibilities in a thorough, professional and impartial manner. The current practice of taking months, or even years, to independently check each detail of a consultant's work effort is simply a grievous waste of resources.

There are too many other, more appropriate and more pressing needs.

Thank you for the opportunity to comment. I would be pleased to provide additional information or testify as necessary.

Sincerely,



Dave Leonard, P. E.  
Director of Public Works

DML/jc



## BROWNING-FERRIS INDUSTRIES

PACIFIC REGION

January 26, 1993

Deanna Mueller-Crispin  
Hazardous and Solid Waste Division  
Oregon Department of Environmental Quality  
811 S.W. 6th Street  
Portland, Oregon 97204

Re: Proposed Rules OAR 340 Divisions 93 through 97

Dear Ms. Mueller-Crispin:

Browning-Ferris Industries, Inc. ("BFI") is pleased to comment on the above-referenced proposal, which would incorporate the Federal requirements promulgated pursuant to Subtitle D of the Resource Conservation and Recovery Act ("RCRA") and revise the regulations applicable to industrial waste and construction and demolition debris facilities.

We strongly support the Department's efforts to ensure that solid waste management facilities in Oregon are located, designed, and operated in a manner that is protective of human health and the environment. In particular, we congratulate the Department for acting to ensure that Oregon's solid waste disposal regulations satisfy the criteria set forth in the RCRA Subtitle D rules. We believe it is of critical importance for the Department to obtain, through the prompt promulgation of implementing regulations and the submission of a program application, EPA approval of a Subtitle D program that is consistently and equitably enforced. The Subtitle D requirements will help to ensure the safe, environmentally protective landfilling of municipal solid waste throughout the Nation. We hope that our comments are of assistance to the Department, and we would be pleased to meet with you or members of your staff to further discuss our recommendations.

### THE IMPORTANCE OF EPA APPROVAL OF AN OREGON SUBTITLE D PROGRAM

BFI has actively worked with a number of states--including Texas, Arkansas, Hawaii, Montana, Indiana, Tennessee, South Carolina, Florida, Ohio, Colorado, Massachusetts, Georgia, New York, Michigan, West Virginia, Virginia, Wisconsin, Arkansas, Missouri, Utah and Louisiana--to secure the timely promulgation of regulations or the submission of applications so that approved Subtitle D programs can be in place by October, 1993. In addition, we have actively participated in the process of EPA's review of the solid waste management programs of Virginia and Wisconsin. We stand ready to assist the Department in the task of securing approval so that the Department can, after October, continue to act as the

permitting and enforcement authority for municipal solid waste landfills.

As the Department is aware, approved states can exercise flexibility in a number of the areas addressed by the Subtitle D regulations. Perhaps most importantly, EPA approval of an Oregon Subtitle D program will help to ensure that the Department--and not the Federal courts--enforce regulatory requirements. The EPA has made clear on several occasions, most recently regarding the tentative partial approval of Wisconsin's program, that "EPA's national Subtitle D standards will take effect on October 9, 1993, in any State/Tribe that lacks an approved program. Consequently, any remaining portions of the Federal Criteria which are not included in an approved State/Tribal program by that date would apply directly to the owner/operator." 57 Fed. Reg. 44,377 (Sept. 25, 1992). The Subtitle D rules will, in unapproved jurisdictions, be "self-implementing", i.e., they will apply directly and be enforced by the owner/operator. In the event of the failure of the State to obtain approval, the only authority an Oregon agency would have, with regard to any of the subjects addressed in the Subtitle D rules, would be to act as a petitioner in a citizens suit under Section 7002 of RCRA--the same right afforded any other citizen who satisfies standing criteria.

The substantially reduced authority of state regulatory agencies in the event of non-approval was specifically envisioned by the EPA as the "stick" that accompanies the "carrots" of flexibility. As the California Integrated Waste Management Board noted in its May, 1992 "Subtitle D Update", the "self-implementing provisions of Subtitle D will supersede state requirements in areas not approved." The preamble to the Subtitle D rules notes that "every standard in today's rule may be implementing by the owner or operator without State oversight or participation where a State program has not been developed." 56 Fed. Reg. 50,978, 50,994 (Oct. 9, 1991) (emphasis added). The only external enforcement tool, in the event of non-approval, will be citizens suits under RCRA. The EPA stated that it "fully intends that States will maintain the lead role in implementing this program. EPA's goal is for all States to apply for and receive approval of their programs. Under this rule States will have the flexibility to tailor standards to meet their state-specific conditions." Id. at 50,994. The Agency emphasized the substantial disadvantages of non-approval:

Despite the promulgation of self-implementing standards in today's rulemaking, EPA continues to believe that requirements such as landfill design, groundwater monitoring, corrective action, and closure should optimally be implemented under the oversight of a State implementing agency. Today's rule does not represent a shift away from the longstanding Agency policy of requiring regulatory oversight of such important procedures. Rather, the inclusion of self-implementing standards in today's rule is a recognition that, due to

resource limitations, States may not have adequate programs in place by the effective date of the revised Criteria. This scheme will insure that in States that do not act to establish adequate provisions, human health and the environment will be protected and the Federal requirements will be enforceable.

EPA recognizes that self-implemented standards possess certain drawbacks. First, self-implemented standards, such as corrective action plans, may be lacking in detail, because they lack the input of a qualified and trained State regulatory official. Second, without qualified State oversight, owners and operators intent upon circumventing the regulations may find it easier to do so.

Id.

The Agency has unmistakably provided that regulatory agencies in unapproved States will, in essence, not be able to permit or regulate municipal solid waste landfills with regard to any of the matters addressed in the Subtitle D rules. The EPA concluded that such an approach was necessary in light of Congress's clear mandate that uniform National standards be established for municipal solid waste landfills. The EPA's position is also consistent with the Supremacy Clause of the U.S. Constitution, Art. VI, cl. 2. As the U.S. Supreme Court has made clear, even in the absence of explicit statutory or regulatory language, a Federal intent to preempt may be implied from a pervasive "scheme of federal regulation", Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 230 (1947), where compliance with both federal and state laws or regulations at the same time is physically impossible, Florida Lime & Avocado Growers, Inc. v. Paul, 373 U.S. 132, 142-43 (1963), or where state laws or regulations stand "as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress." Hines v. Davidowitz, 312 U.S. 52, 67 (1941).

The Supreme Court recently noted in Gade v. National Solid Wastes Management Association, No. 90-1676 (U.S. June 18, 1992), a state regulatory program may be preempted by a Federal law or rule even if the "ultimate goal of both federal and state law (here, protection of human health and the environment) is the same." Slip opinion, at 13 (state worker safety requirements are preempted in event of lack of OSHA approval of a regulatory program). See also International Paper Co. v. Ouellette, 479 U.S. 481, 494 (1987) ("A state law is also pre-empted if it interferes with the methods by which the federal statute was designed to reach the goal"); Michigan Cannery & Freezers Ass'n, Inc. v. Agricultural Marketing and Bargaining Bd., 467 U.S. 461, 477 (1984) (preemption of state statute regarding agricultural producers even though it and Federal statute "share the goal of augmenting the producer's bargaining power"); Wisconsin Dept. of Industry v. Gould Inc., 475 U.S. 282, 286-87 (1986) (state labor statute found preempted although it was



intended to supplement and help enforce Federal laws and regulations).

Even a cursory examination of the consequences of non-approval can lead to only one conclusion that is consistent with the very purpose of an Oregon solid waste disposal program: the Department should act promptly to promulgate the draft regulations so that Oregon is not effectively stripped of the authority to regulate MSW landfills in the State.

**ALTHOUGH THE DEPARTMENT SHOULD ACT PROMPTLY TO ENSURE THAT AN OREGON SUBTITLE D PROGRAM IS APPROVED, THE POTENTIAL FOR CONFUSION OR INCONSISTENT APPLICATION THAT COULD BE RESULT FROM ADOPTION OF THE FEDERAL REQUIREMENTS "BY REFERENCE" SHOULD BE MINIMIZED**

Although the U.S. EPA clearly intends that state agencies conduct approved Subtitle D programs, the Part 258 regulations were not worded in such a manner as to promote the expediency of adoption by reference. (We are aware of only one other State--Arkansas--that has proposed to adopt the regulations by reference). The Federal rules are, instead, replete with references to the ability of the "director of an approved State" to utilize the performance-based flexibility provisions created by the Agency. We recommend that the Department expressly state the manner in which it will interpret or utilize the "flexibility" provisions in Part 258.

Two examples of the difficulties--which could lead to confusion and the potential for inconsistent application--will suffice. The Subtitle D rules provide that an approved State may, with regard to the recordkeeping requirements set forth in 40 C.F.R. Section 258.29, "set alternative schedules for recordkeeping and notification requirements." Yet the simple adoption of the EPA regulations "by reference" would give little guidance to owners/operators or the Department staff as to what alternative schedules may be permissible. Moreover, the EPA regulations apparently envision the establishment of uniformly applicable alternative schedules, not case-by-case "waivers" or differential recordkeeping requirements. Only by specifying in the Oregon regulations how the Department will interpret the "flexibility" provision in the Subtitle D rules will the potential for inconsistent application and confusion be avoided.

Similarly, the Federal rules provide, in C.F.R. Section 258.50 (g), that the director of an approved State may establish alternative schedules for the demonstration of compliance with a number of requirements pertaining to groundwater monitoring and corrective action. But the adoption into Oregon regulations of Part 258 "by reference" will not address the extent to which the Department will evaluate requests for alternative approaches, or the criteria that will be utilized.

Indeed, in many instances the failure of the Subtitle D rules to establish specific alternative standards is a mixed blessing. The flexibility aspects of the regulations are certainly important and useful--but at the same time, it is essential that approved States clearly set forth their understanding of the provisions and the degree and manner in which they will or may be employed.

**BFI STRONGLY SUPPORTS PROPOSED OAR 340-94-020, WHICH WILL HELP TO ENSURE THAT NO STANDARD LESS STRINGENT THAN THE SUBTITLE D REQUIREMENTS IS APPROVED; OAR SECTIONS 340-93-060, 340-93-080 (1), AND 340-93-070 (4) SHOULD INCLUDE A SIMILAR PROVISION**

We strongly support the promulgation of proposed OAR 340-94-020, which would specifically provide that no variance (in the form of an alternative schedule, procedure, or design) will be recognized that would result in the imposition of any requirement less stringent than Subtitle D requirements. It is also of critical importance that the Department clearly provide that the "letter authorization" process described at proposed OAR 340-93-060, the variance process enumerated at proposed OAR 340-93-080 (1), and the permit "exemption" process set forth at proposed OAR 340-93-070 (4) will not be used, with regard to MSW, industrial waste, and construction and demolition debris landfills, to result in the imposition of any requirement less stringent than Subtitle D requirements.

Obviously, a state variance, waiver, exemption or "authorization" process that results in standards less stringent than the Subtitle D requirements would defeat the purpose of the revised criteria--the establishment of minimum nationwide standards. Congress clearly contemplated--indeed, it desired--the closure of substandard facilities. As then-Senator Randolph explained in his remarks to the Senate, "new statutory requirements for Subtitle D facilities (in Section 4010 of RCRA) may hasten the closure of many solid waste facilities that have only a few years of remaining capacity. The requirements could also hasten the closure of facilities with substantial capacity, but that are either unable or unwilling to accept new regulatory costs." 130 Cong. Rec. S13814 (daily ed. October 5, 1984).

Congress, in adopting Section 4010 of RCRA, expected that baseline EPA standards would be created and consistently implemented. RCRA does not permit the establishment of preferential waivers or exceptions beyond those specifically authorized in the revised Subtitle D rules. Indeed, Section 4005(c)(1)(c) directs the EPA to determine whether State permit programs are adequate to ensure compliance with 40 C.F.R. Part 258. Moreover, the revised criteria clearly emphasize the need for consistent application of the standards. Certainly, the Part 258 criteria provide States and Tribes with substantial--and needed--flexibility to consider local site-specific conditions by the creation of design and performance standards. It is equally clear, however, that the draft STIR rule--

the document that will be used by the EPA to evaluate Oregon's program--requires that all existing and new MSW landfill facilities "shall have a permit incorporating the conditions" identified in the rule so as "to ensure compliance with 40 C.F.R. Part 258."

Congress and the EPA have emphasized that state permitting and compliance monitoring requirements and enforcement authorities must ensure compliance with Part 258. In our view, the only way to reconcile the procedures with the requirements of the Federal rules is to expressly provide that no exemption, waiver, or variance will be issued that results in the imposition of a requirement less stringent than Subtitle D requirements.

With the exception of the "small landfill" exemption, the EPA made clear in the final rule that any variation in the application of the revised criteria by approved states must be based on site-specific factors relating to the risks posed to human health and the environment and cannot extend beyond the areas in which states are specifically permitted to approve alternative approaches or designs. The EPA noted that it intended that the rules create minimum Federal requirements that could be subject to variation only to the extent contemplated by the performance standards. See 56 Fed. Reg. at 50,995.

The courts have, likewise, noted that waivers or exceptions should not be used by the EPA or by approved/authorized states to avoid minimum Federal standards. As the court in Mississippi Commission on Natural Resources v. Costle, 625 F.2d 1269, 1276 (5th Cir. 1979) emphasized, Federal standards must be consistently enforced by authorized states. The court noted that it "was not unreasonable for the EPA Administrator to interpret the (Clean Water) Act as allowing him to require states to justify standards not in conformance with the criteria policy." See also EPA v. National Crushed Stone Association, 449 U.S. 64, 76 (1980), on remand, 643 F.2d 163 (4th Cir. 1981) ("To allow a variance based on economic capability and not to require adherence to the prescribed minimum technology would permit the employment of the very practices the Administrator had rejected in establishing the best practicable technology currently in use in the industry."); Crown Simpson Pulp Co. v. Costle, 642 F.2d 323, 326 (9th Cir. 1981) (variances should be granted only in exceptional cases).

Put simply, nowhere in the legislative history of RCRA, in the express language of the statute, or in the revised criteria is there any reference to state authority to allow exemptions or variances from Federal requirements on the basis of facility idiosyncrasies, engineering inadequacies, or "economic hardship" except to the extent of the performance standards established in the revised criteria. To the contrary, the congressional intent was to "establish the overall regulatory direction, by providing minimum nationwide standards for the protection of human health and the environment." Id. at 50,979. Likewise, the Agency had in

proposing the revised criteria emphasized the need for uniformity, noting that design and operating standards for landfills "vary greatly" and that "(n)early all (states) allow case-by-case exemptions and variances." 53 Fed. Reg. 33,314, 33,320 (August 30, 1988).

In the RCRA Subtitle C program, the EPA has determined that it will not authorize hazardous waste programs unless the state agrees "not to use the waiver or variance (procedure) so that it would result in the imposition of any requirement less stringent than comparable Federal program requirements." U.S. EPA, Office of Solid Waste and Emergency Response, State Consolidated RCRA Authorization Manual 1.3-9 (January 21, 1988) (OSWER Directive No. 9540.00-1C) (emphasis added). While the Subtitle C approach does not mandate the abolition of state variance or exemption provisions, it clearly emphasizes the necessity of compliance with Federal minimum requirements. BFI has recommended that the EPA utilize a similar approach in granting program approvals under Subtitle D; we congratulate the Department for its proposed approach to OAR 340-94-020, and we urge the utilization of consistent language in OAR 340-93-060 and 340-93-070 (4).

**THE DEPARTMENT'S REGULATIONS SHOULD ENSURE THAT ALL INDUSTRIAL, NON-HAZARDOUS WASTES ARE DISPOSED OF AT FACILITIES THAT COMPLY WITH PART 258 STANDARDS**

BFI strongly supports the establishment of laws and regulations that effectively manage the significant quantities of industrial, non-hazardous wastes generated each year. According to EPA and congressional estimates, at least 7.5 billion tons of industrial waste disposed of each year in the United States is largely unregulated. A 1988 EPA study found that 97 percent of the unregulated industrial wastes are liquid wastes disposed of in surface impoundments. These impoundments generally lack liners, leak detection systems, or other devices to prevent discharges to the environment. There are some 20,000 unregulated disposal sites for industrial waste in the United States--including surface impoundments, landfills, and waste piles. See U.S. EPA, 1 Report to Congress: Solid Waste Disposal in the United States 11 (1988).

As one commentator has noted:

The magnitude of the industrial waste problem is overwhelming when stated in figures. Nationally, about 211 million tons of municipal waste and approximately 300 million tons of hazardous waste are generated annually. These numbers seem small compared with the 7,600 million tons of industrial waste that are generated and disposed of on-site annually. Industrial waste is generated in amounts that are 36 times larger than municipal waste, and 25 times larger than hazardous waste. Industrial waste may represent as much as 94

percent of municipal, hazardous, and industrial waste combined.

These statistics both understate and overstate the size of the problem. On one hand, the data do not include disposal away from the site where the waste was generated, which is the fate of much industrial waste. On the other hand, 96.6 percent of industrial waste goes to impoundments (ponds or lagoons) for storage, treatment, or disposal. Not all wastes that go to industrial impoundments are ultimately disposed there, since 29 percent of these impoundments have discharge permits. Much of the industrial waste stream is discharged into surface waters after treatment or storage in impoundments under the Federal Water Pollution Control Act's (FWPCA) National Pollution Discharge Elimination System (NPDES) program. Moreover, evaporation at waste water treatment or storage impoundments reduces the industrial waste stream.

It is not clear, however, that surface discharges and evaporation significantly reduce the magnitude of the problem. Liquid wastes have a greater ability than comparable solid wastes to leach into the ground and groundwater, even if these liquid wastes are not intended to be disposed of in impoundments. The potential magnitude of groundwater pollution from some of these impoundments is not necessarily diminished by the fact that the polluting constituents they contain can be measured only in parts per million or parts per billion. Additionally, treatment and storage ponds or lagoons have become disposal impoundments because they are filled over time and then abandoned and closed.

Dernbach, Industrial Waste: Saving the Worst for Last?, 20 Env. Law. Rep. 10,283-84 (July, 1990).

An April 1990 study conducted by the U.S. General Accounting Office ("GAO") concluded that "EPA's data strongly suggest that some industrial facilities may contaminate groundwater and thus threaten human health and the environment." General Accounting Office, Nonhazardous Waste: Environmental Safeguards for Industrial Facilities Need to be Developed 17 (1990). The EPA's 1988 study, which emphasized that "industrial Subtitle D facilities are a cause for concern", 1 Report to Congress, supra, at 34, noted that "less than five percent of the industrial waste impoundments had a synthetic liner system, that only 17.4 percent had some kind of natural liner (e.g., clay), and that only 8.6 percent had any groundwater monitoring. Significantly, 416 of the 1,396 impoundments with groundwater monitoring showed groundwater contamination." Dernbach, supra, at 10,285.

BFI has, for several years, urged the U.S. EPA to take affirmative steps to regulate, under the authority of Subtitle D of RCRA, industrial solid waste facilities (including monofills and surface

impoundments). In our comments to the EPA on the proposed Subtitle D criteria, we stressed the need for prompt action:

Before we lay out our specific comments regarding the proposed rule BFI strongly believes that the Agency (should) not delay development of similar criteria that would be applicable to the large number of industrial solid waste facilities that include landfills, surface impoundments, waste piles, and land farms. More importantly, these facilities are used to manage a waste stream that is an order of magnitude greater in volume than municipal solid waste (MSW). While there are important differences between industrial facilities and MSWLFs there are many similarities. These similarities strongly suggest that many important environmental controls and operating requirements, that would be required by this rule as proposed, are equally applicable to industrial facilities.

BFI believes, at a minimum, that the Agency should promulgate criteria covering closure, and post-closure care, ground-water monitoring and financial responsibility without any further delay. BFI strongly suggests that the Agency develop these criteria for industrial facilities in a manner that would make them self-implementing. The Agency should review its experience with hazardous waste facilities subject to interim status to help it craft self-implementing criteria for industrial facilities. These types of criteria should be applicable to virtually all facilities that dispose of waste without regard to the nature and volumes of waste they may respectively manage. Moreover, the Agency should make a concerted effort to study those aspects of industrial facilities that warrant uniquely tailored design and operating practices and follow up in the most expeditious manner possible with rules that assure their protectiveness and clearly spell out the responsibilities of their owners/operators.

Comments of Browning-Ferris Industries, Inc. regarding U.S. EPA Solid Waste Disposal Facility Criteria Proposed Rule, November 30, 1988, at 2.

The EPA has also acknowledged that many industrial waste facilities are present or potential Superfund sites:

A number of Superfund cleanup actions are a result of improper disposal of industrial waste and construction/demolition waste. These include surface impoundments overflowing and/or leaking to the surface and ground waters, landfills contaminating ground water, and fires and explosions in other disposal areas. Construction/demolition waste landfills are of concern because these facilities may be receiving wastes containing asbestos, PCBs, or other toxic or hazardous

materials that may be used, or have been used in the past, by the building industry.

EPA Office of Solid Waste, Draft Background Document: Notification Requirements for Industrial Solid Waste Disposal Facilities, August, 1988, at 2 (citation omitted). Similarly, in the preamble to the final Subtitle D rules, the Agency admitted that the evidence regarding such facilities provides "a compelling case to move forward more expeditiously than was previously proposed. . . ." 56 Fed. Reg. at 51,000.

Despite evidence that enormous quantities of industrial wastes are land disposed of each year in the United States (much of it improperly)--and despite the fact that such facilities are clearly subject to Subtitle D of RCRA--the EPA failed to specifically address industrial waste facilities in the recently promulgated Subtitle D rules. As the U.S. Office of Technology Assessment noted:

HSWA required EPA to revise the Subtitle D criteria for facilities that may receive household hazardous waste or small quantity generator hazardous waste, especially by taking into account potential effects on groundwater. In response, EPA recently issued revised criteria for municipal solid waste landfills. The revisions address location restrictions; design criteria based on performance goals; operating criteria; groundwater monitoring and corrective action requirements; financial assurance requirements for closure, postclosure care, and known releases; and closure and postclosure care standards based on performance goals. The revision focuses on MSW landfills, even though only a small fraction of the Subtitle D universe consists of municipal solid waste and landfills are used to manage only a small fraction of the Subtitle D universe.

U.S. Congress, Office of Technology Assessment, Managing Industrial Solid Wastes from Manufacturing, Mining, Oil and Gas Production, and Utility Coal Combustion--Background Paper, OTA-BP-O-82 (February 1992), at 14. Accordingly, "(d) evelopment of a Federal Subtitle D regulatory program for manufacturing wastes is generally further behind than similar programs for exempted special wastes. EPA believes it is necessary to understand Subtitle D manufacturing wastes in greater detail and to assess their relative risks before developing new regulatory efforts." Id. at 110. Although the Agency participated in meetings, which were conducted by the Keystone Center with BFI in attendance, to attempt to develop consensus agreements on an "interim" Federal program that would be self-implementing, the EPA continues to declare that additional information or resources are needed. Likewise, the Congress in 1992 deferred any serious discussion of industrial waste issues in the RCRA reauthorization process.

It is important to note that industrial/commercial waste facilities, such as monofills and surface impoundments, are Subtitle D facilities. Indeed, we believe the EPA erred in limiting the revised criteria to municipal solid waste landfills. Likewise, Congress, in enacting Section 4010 of RCRA in 1984, clearly expected such facilities to be comprehensively regulated. Congressman Eckart, the sponsor of the House amendment that created Section 4010, noted the importance of addressing management standards at surface impoundments and industrial waste landfills--regardless of whether they actually receive small quantity generator or household hazardous waste. He stressed that "(m)any of the impoundments are located in areas in which there is a strong chance of groundwater contamination--85 percent of all sites are located in areas where there is a potential drinking water source within 1 mile and two-thirds of these sites do not have liners." 129 Cong. Rec. H9161 (daily ed. November 3, 1983). He also described Subtitle D--in the absence of any Federal controls on industrial facilities--as "a no man's land of regulation." Id. He concluded by declaring that "this amendment (Section 4010) takes the first step to protecting our groundwaters from these numerous impoundments which may endanger them. . . ." Id.

Similarly, the report of the Senate noted that "in revising the (Subtitle D) criteria the Agency should focus initially on municipal landfills and subtitle D surface impoundments where" small quantity and household hazardous materials were most likely to have been disposed of along with nonhazardous waste. S. Rep. No. 98-284, 98th Cong., 1st Sess. 52. The thousands of surface impoundments, land application units and waste piles throughout the United States are certainly as likely to pose a potential threat to the environment at least as great as any active municipal solid waste landfill. Moreover, the sheer number of impoundments and other facilities presents a cumulative potential for environmental degradation that far exceeds that posed by MSW landfills.

The EPA has not contended that Section 4010(c) does not apply to industrial waste facilities--indeed, it noted in the proposed Subtitle D rule that "EPA has found that the HSWA-mandated scope includes all MSWLFs, which may receive HHW and SQG hazardous waste, and some industrial solid waste disposal facilities and certain other Subtitle D facilities, which may receive SQG hazardous waste." 53 Fed. Reg. at 33,322. Likewise, the Agency stated in a 1986 "options paper" that "(t)he major drawback to limiting the rule to municipal solid waste landfills is that it falls short of the statutory requirement and offers less protection." EPA Office of Solid Waste, Options Paper on Broad Issues: Revisions to the RCRA Subtitle D Criteria for Classification of Solid Waste Disposal Facilities and Practices, September 5, 1986, at 8. See also id. at 5-6 ("The primary disadvantage of this option is that it does not meet the minimum requirements of HSWA.").



We believe that this rulemaking presents the Department with the opportunity to ensure that all industrial waste disposal facilities are protective of human health and the environment. At a minimum, the basic locational, liner and other design, capping, groundwater monitoring, corrective action, closure and post-closure care and financial assurance requirements set forth in 40 C.F.R. Part 258 should apply to all non-hazardous industrial/commercial waste land disposal facilities and surface impoundments. Facilities that conform to the design and operating standards set forth under Part 258 could be permitted to accept industrial or "special" wastes. We recommend that the Department's regulations specifically provide that:

No person shall permit or cause the treatment, storage, or disposal of industrial solid waste at any landfill, monofill, or surface impoundment, regardless of its location, types of wastes managed at the facility, or origin of the waste, that does not satisfy the requirements of 40 C.F.R. Part 258, as applicable to municipal solid waste landfills.

The adoption of our proposed language would result in several modification to the requirements described in proposed Division 95.

**THE DEPARTMENT SHOULD ADOPT FINANCIAL RESPONSIBILITY REQUIREMENTS THAT ARE COST-EFFECTIVE**

We fully support the concept of requiring financial responsibility demonstrations from owners/operators in a manner consistent with the Subtitle D rules. We are, moreover, interested in the prompt development of a Subtitle D financial test/corporate guarantee mechanism that is truly cost-effective. In addition, we urge the Department to adopt a revised financial test/guarantee mechanism consistent with the proposed approach described below.

Corporate Financial Test Mechanism

The EPA is currently in the process of revising its corporate financial test under Subtitle C of RCRA, and we expect that the Subtitle D test will be similar, if not identical to, the revised test for hazardous waste facilities. See 56 Fed. Reg. 30,201 (July 1, 1991). The National Solid Wastes Management Association ("NSWMA"), in a rulemaking petition filed with the Agency in 1990, prompted the EPA's action by noting that the currently-utilized Subtitle C test requires an excessive margin of safety, and acts as an unnecessary constraint on fiscally-sound firms. The Association proposed a new financial test--which is fully described in the attached copy of the petition--that would apply to both Subtitle C and D facilities. The petition also pointed out that certain modifications should be made to the trust fund and letter of credit mechanisms in order to make them truly cost-effective alternatives.

In response, the EPA proposed, on July 1, 1991, a revised financial test that represents a significant improvement over the present approach. See 56 Fed. Reg. 30,201 (July 1, 1991). Because the EPA has reserved the financial test under the Subtitle D rule for further rulemakings, we expect that the new test developed under Subtitle C will eventually be referred to in the D rules as well.

We have attached, for the convenience of the Department, and incorporated herein in our comments a copy each of the NSWMA proposal, the EPA's July 1, 1991 proposed rule, and BFI's comments to the EPA proposal. Our comments voiced general support for the EPA proposal; we particularly strongly supported the Agency's determination to delete the "six times" multiplier for net worth and net working capital. The six times multiple requirement has proven to be not only expensive but inefficient. It has forced financially secure firms such as BFI to provide assurance for highly improbable levels of contingent costs. It has compelled excessive "internalization" of costs and has needlessly restricted the ability of financially secure firms to expand or to maintain existing waste management capacity.

We disagreed, however, with EPA's proposal to the extent that it would retain the requirement that the owner or operator demonstrate that it has assets in the United States that amount to at least 90% of total assets. We can discern no justification, either in theory or practice, for the inclusion of a restriction that inequitably and adversely affects multi-national firms. The "domestic assets" provision takes on additional importance given that, in light of several important (and appropriate) proposed changes to the financial test, the provision would stand as perhaps the most prohibitive aspect of the mechanism. We believe that retention of the current domestic asset provision will lead to a significant reduction in the average level of financial responsibility obligations that multi-national firms can self-assure.

BFI also urged the Agency to give additional consideration to the financial test developed by NSWMA as an alternative to the EPA proposal. We emphasized the fact that the NSWMA test, unlike the EPA's recommended approach, contains neither a bias against multi-national firms nor a prohibitive hurdle for small firms. The Agency recently noted that it was deferring a final Subtitle C rule on the subject because it is "continuing to evaluate comments received on the proposed revisions to the financial tests. . . ." 57 Fed. Reg. 42,832, 42,833 (September 16, 1992).

While we are convinced that the Subtitle C test--which is currently utilized for solid waste disposal facilities in Oregon--will be revised and that the Agency will adopt an identical or substantially similar mechanism under its Subtitle D rules, the Department should in light of the Agency's delays proceed in this rulemaking to adopt a revised financial test. We strongly recommend that the Department adopt, at this time and as an interim mechanism

until such time that a Federal test is promulgated, either (1) the financial test described in the NSWMA petition, or (2) the EPA-proposed Subtitle C test, with the modifications described in BFI's comments.

The need for a financial test that is cost-effective is clear and uncontroverted. Indeed, two conclusions from the EPA's efforts and the history of financial responsibility programs are evident. First, it is essential, as the EPA and others have noted, that states utilize a financial/self-assurance test as an option available to owners/operators. Second, the financial test must be an accurate and reliable indicator of financial strength and long-term viability. The final report of the Keystone Center Financial Responsibility Project, drawing upon the consensus of government, public, and public and private waste industry members, stressed that

(t)he financial test provides certain significant advantages over the other mechanisms. First, the financial test is the most cost effective financial responsibility mechanism. It eliminates the need for a third party financial mechanism and the resultant tangible costs of transaction charges (premium for insurance policies, fees for letters of credit, etc.) as well as the intangible opportunity costs of funds (cash or collateral is tied up in a trust fund or letter of credit). Second, the financial test provides an option to the other financial mechanisms. This is particularly important because market constraints may have an adverse impact upon the availability of the other instruments (e.g., insurance).

Keystone Financial Responsibility Project, Final Report, March 1989, at 9. Likewise, the EPA has stressed the need for a financial test/self-assurance mechanism, pointing out that the failure to include such a mechanism would result in a "burdensome" program. See 56 Fed. Reg. at 30,202.

The wisdom of including a revised self-assurance alternative at this time is also demonstrated by the relative unavailability or restrictiveness of several of the other mechanisms. It is widely recognized, for example, that trust funds are not a cost-effective mechanism for the demonstration of financial responsibility. The primary disadvantage of trust funds is that the trustee fee expense, as a percentage of the obligation assumed, is significantly greater for long-term obligations than for short-term ones. The utility of the letter of credit mechanism is similarly diminished because the mechanism typically does not permit firms to build-up assurance in a letter of credit over time. It is often difficult to obtain a surety bond guaranteeing a long-term obligation.

One of the best ways to ensure that the objectives of financial assurance--ensuring that funds are available to close waste

management facilities properly, care for them after closure, undertake necessary corrective action, and compensate for releases from the facilities--are met by fiscally-sound companies is through the use of a revised financial test/self-assurance option. We would be pleased to work with the Department in reviewing our comments to the EPA and the proposals set forth in the NSWMA petition for rulemaking.

### Insurance

BFI recommends that the Department adopt the Subtitle D approach to insurance precisely as written by the EPA. Specifically, we believe that insurance should be an available mechanism for the demonstration of financial responsibility for post-closure and corrective action activities as well as for closure.

**THE DEPARTMENT SHOULD MAKE CLEAR THAT THE "PRACTICABLE CAPABILITY" LANGUAGE IN THE CORRECTIVE ACTION PROVISIONS (PROPOSED OAR 340-94-080) DOES NOT REFER TO THE FINANCIAL OR GOVERNMENTAL STATUS OF THE INDIVIDUAL OWNER/OPERATOR**

The Department's proposed corrective action requirements would adopt by reference the Subtitle D rules. In at least two instances, the proposal and the EPA rules refer either to the "economic resources of the facility owner or operator" or to the "practicable capability" of the owner or operator. We believe the Department should recognize--despite the Agency's failure to do so--that Section 4010(c) of RCRA provides that if a particular form of regulatory control is necessary "to protect human health and the environment", minimum or reduced levels of protection should not be mandated simply on the basis of economic impracticability for any given facility or class of facilities. If a particular type of control or activity is deemed to be "necessary", given factors such as geology, waste characteristics, etc., it remains "necessary" despite the economic status of the individual owner or operator.

In our view, the "practicable capability" language in Section 4010 cannot justify the EPA or approved states in permitting reduced levels of corrective action simply because of the potential economic impact on a particular owner or operator. The reference to "practicable capability" arose in the context of the development by the EPA of uniform national standards--standards that were to "avert serious disruptions of the solid waste disposal industry", 130 Cong. Rec. S13,814 (daily ed. October 5, 1984) (statement of Sen. Randolph)--rather than the implementation of the revised Subtitle D criteria by an approved state. Although the term was not defined by Congress, it is clear that the unambiguous mandate upon the EPA--and hence upon any state that seeks approval of a Subtitle D program--is to promulgate standards necessary to protect human health and the environment. To the extent "practicable capability" enters into the equation at all, the EPA has addressed the issue by

creating flexible design and operational standards to be employed by approved states.

Congress noted that "(t)he underlying standard for facilities subject to this amendment to Subtitle D remains protection of human health and the environment." Id. The Senate Report regarding the 1984 amendments to RCRA makes clear that "EPA must. . .consider the appropriate standards to protect human health and the environment, taking into account the size of the facility, its location relative to populated areas and the degree of industrialization, the proximity of ground and surface water, the disposal method, and the amounts and characteristics of the waste received." S. Rep. No. 98-284, 98th Cong., 1st Sess. 51. The factors listed in the Senate Report all relate, not to the economic ability of a particular owner or operator to act or the governmental or private nature of a facility, but instead to the relative degree of risk presented by the facility. Similarly, the EPA has acknowledged that the congressional intent was to "establish the overall regulatory direction, by providing minimum nationwide standards for the protection of human health and the environment." 56 Fed. Reg. at 50,979.

Congress clearly did not desire that the revised Subtitle D criteria impose unnecessarily extensive retroactive requirements--but the statute also unmistakably provides that the economic status of a particular owner or operator may not be considered in determining whether a specific form of control or remediation is "necessary" to protect human health and the environment. See also Yick Wo v. Hopkins, 118 U.S. 356 (1886) (the disparate enforcement of administrative requirements violates the equal protection clause of the U.S. Constitution).

Several states--Michigan is but one example--have recently declined to include references to the economic status of or economic impact upon individual owners/operators in their proposed Subtitle D implementation rules. We urge the Department to do likewise--by either deleting such references in their entirety or by specifically providing that only the economic status of or economic impact upon the entire class of municipal solid waste owners or operators may be considered for corrective action purposes.

**THE DEPARTMENT SHOULD PROMULGATE ENVIRONMENTALLY PROTECTIVE STANDARDS FOR CONSTRUCTION AND DEMOLITION DEBRIS, CLEAN FILL, AND WOODWASTE DISPOSAL FACILITIES**

We congratulate the Department for requiring that construction and demolition debris landfills adhere to many of the standards applicable to MSW ("domestic solid waste") disposal facilities. Most states have simply failed to impose environmentally protective standards upon such facilities, with serious environmental consequences. We believe the risks to human health and the environment presented by these facilities is sufficiently serious

to justify measures even more stringent than those set forth in the draft, which we have described below. In addition, we urge the Department to consider the adoption of environmentally protective standards for all facilities that dispose of "clean fill" and woodwaste.

It is important to note initially that the EPA has admitted that such disposal sites are RCRA Subtitle D facilities, and that such facilities frequently present significant actual and potential environmental risk:

A number of Superfund cleanup actions are a result of improper disposal of industrial waste and construction/demolition waste. These include surface impoundments overflowing and/or leaking to surface and ground waters, landfills contaminating ground water, and fires and explosions in other disposal areas. Construction/demolition waste landfills are of concern because these facilities may be receiving wastes containing asbestos, PCBs, or other toxic or hazardous materials that may be used, or have been used in the past, by the building industry.

EPA Office of Solid Waste, Draft Background Document: Notification Requirements for Industrial Solid Waste Disposal Facilities, August 1988, at 2.

More recently, the EPA acknowledged that "the General Accounting Office (GAO) completed a recent report. . .that confirmed the assessment of environmental threats made earlier by EPA in its Report to Congress," 56 Fed. Reg. at 50,999-51,000. Specifically,

GAO examined ground-water monitoring data from 112 industrial solid waste disposal facilities in California and New Jersey. State officials reported that 68 (61 percent) of the 112 facilities studied indicated ground-water contamination (i.e., constituents at levels above the State's standards or prescribed limits.) At 32 (29 percent) of the 112 facilities, the known or suspected source of groundwater contamination was an industrial landfill, surface impoundment, or construction/demolition debris landfill.

Id. at n.3.

Other reports confirm the EPA and GAO findings. For example, a study recently conducted by Waste Management of North America found that the leachate from examined C & D facilities is virtually indistinguishable from that of MSW landfill leachate. (A copy of the report is attached for the Department's review). Another report recently found that C & D facilities often handle materials that should be dealt with at environmentally protective MSW landfills. J. Connelly, L. Pugh, and G. Mitchell, Demolition Landfills--How Much Regulation Is Needed?, Wisconsin Department of Natural

Resources, Madison, Wisconsin 1991. For example, lead is present in solder, flashing, and some old paints. Treated wood and old paints can also contain high quantities of other heavy metals such as chromium, copper, arsenic, barium, and cadmium. Drywall and plaster consist of gypsum, which contains high levels of sulfate. Asphalt, roofing tar and tar paper contain leachable petroleum products. All of these substances or materials are commonly found in C & D waste and have the potential to contaminate groundwater supplies if not properly disposed of.

These studies, and others which indicate that little is known about operations at C & D facilities in light of the significant environmental consequences of disposal at poorly regulated facilities, lead to one inescapable conclusion--the permitting, design, and operational standards for such facilities must be strengthened.

Indeed, BFI believes the time has come for the Department to regulate all such facilities--with the exception of certain land-clearing debris/woodwaste (hereinafter "LCD") facilities described below--pursuant to all Part 258 requirements applicable to MSW disposal facilities. We believe that certain LCD facilities which handle only limited types of vegetative materials and which are, with the exception of small facilities subject to exemption by registration requirements, permitted may conform to standards that are not as stringent as Part 258. Other types of C & D waste, however, should be handled at facilities that satisfy the same standards as MSW landfills. C & D processing facilities should likewise be subject to MSW landfill standards.

Below, we have set forth a proposed regulatory approach to provide for a separate permitting and regulatory mechanism for LCD facilities that handle only uncontaminated land clearing debris and chemically untreated wood pieces or particles. We note, however, that the Department should permit such activities only after consideration of a policy that provides that the land disposal/processing for disposal of such materials is the least desirable method of handling such wastes. The composting of such materials should, for example, be emphasized and supported whenever possible.

#### I. Applicability Requirements for Land Clearing Debris Landfills and Processing Facilities

The management of land clearing debris should be in accordance with the Department's hierarchy for managing solid waste. Disposal in a landfill is considered to be the least desirable method of managing land clearing and inert debris. When landfilling is necessary, the requirements of this Subpart apply.

(A) "Land clearing waste" means solid waste that is vegetative matter which is generated solely from land clearing activities such as stumps, trees, limbs, brush, grass, and other naturally occurring, uncontaminated or unadulterated vegetative material, clean fill, and chemically untreated wood pieces or particles generated from processes used in the timber products industry.

(B) "Land Clearing Debris Landfill or Processing Facility" (hereinafter "LCD facility") means a landfill or processing facility for the land disposal or processing of land clearing waste.

(C) "Erosion Control Measure, Structure, or Device" means physical devices constructed, and management practices utilized, to control sedimentation and soil erosion such as silt fences, sediment basins, check dams, channels, swales, energy dissipation pads, seeding, mulching, and other similar items.

(D) An individual permit is not required for an LCD facility that meets the following requirements for exemption by registration. The facility must operate in compliance with all the requirements of this section. The facility is not exempt from the permitting requirements of these rules until written confirmation of exempt status is obtained from the Department.

1. The facility is to be operated solely for the disposal or processing of land clearing waste.

2. The total disposal area is under two (2) acres in size.

3. The facility must register with the Department.

4. The activity is not exempt from, and must comply with, all other Federal, State, or local laws, ordinances, rules, regulations, or orders, including but not limited to zoning restrictions, sedimentation and erosion control requirements, and mining regulations.

(E) When an individual permit is not required, the following requirements also apply:

1. The owner of the land where the landfill or processing facility is located must notify the Department on a prescribed form, duly signed, notarized, and recorded. The operator of the landfill, if different from the land owner, shall also sign the notification form. A copy of a plat map of the site which includes delineating and



identifying the area to be used for landfilling or processing shall also be submitted to the Department.

2. The owner must file the prescribed notification form and the completed registration form, as well as the plat for recordation, in the appropriate Register of Deeds office. The Register of Deeds shall record the plat in the map book under the name of the land owner in the county or counties in which the land is located. The Register of Deeds shall index the notification and the recorded plat map in the grantor index under the name of the owner of the land in the county or counties in which the land is located. A copy of the recorded notification and plat, affixed with the Register's seal and the date, book and page number of the recording shall be forwarded to the Department.

3. When the land on which the landfill or facility is sold, leased, conveyed, or transferred in any manner, the deed or other instrument of transfer shall contain in the description section in no smaller type than that used in the body of the deed or instrument a statement that the property has been used as an LCD landfill or processing facility and a reference by book and page to the recordation of the notification.

(F) An individual permit is required for the construction and operation of a LCD facility (landfill or processing facility) when:

1. The facility is to be operated for the disposal or processing of land clearing waste.

2. The total disposal area is greater than two (2) acres in size.

(G) Individual permits for LCD facilities shall be issued for not more than five (5) years.

(H) Landfills that are currently permitted or operated as construction and demolition landfills, or construction and demolition processing facilities, with the exception of permitted municipal solid waste facilities, are required to comply with the following:

1. Unless all of the requirements of this Part applicable to municipal solid waste landfills are adhered to, only waste types as described in Section (A) hereinabove may be accepted for disposal or processing;

2. All operations must be in compliance with the requirements of the requirements applicable to solid

waste landfills, as applicable, as of the effective date of this Part. In addition, no C & D facility may accept any waste shipments after the effective date of this Part if groundwater at or near the site has been contaminated unless the corrective action and groundwater monitoring requirements of this Part are fully satisfied.

3. Existing LCD facilities must comply with the siting criteria requirements of these rules within one (1) year of the effective date of this Part.

## II. Siting Criteria for LCD Facilities

The following siting criteria shall apply for permitted LCD facilities:

(A) The facility must not be located within a flood plain or Federal or State regulated wetland.

(B) A minimum separation distance of 50 feet must be maintained between the fill or processing area boundaries and the site property line;

(C) Facilities or practices shall not cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife.

(D) Facilities or practices shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in 50 C.F.R. Part 17, which is hereby incorporated by reference including any subsequent amendments and editions.

(E) Facilities or practices shall not damage or destroy an archeological or historical site.

(F) Facilities or practices shall not cause an adverse impact on a state park, recreation or scenic area, or any other lands included in a nature and historic preserve.

(G) It must be shown that adequate suitable soils are available for cover, either from on or off site.

(H) Facilities shall meet the following surface and ground water requirements:

1. Facilities or practices shall not cause a discharge of pollutants into waters of the State that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES), under Section 402 of the Clean Water Act, as amended.

2. Facilities or practices shall not cause a discharge of dredged materials or fill material into waters of the State that is in violation of the requirements of Section 404 of the Clean Water Act, as amended.

3. Facilities or practices shall not cause non-point source pollution of waters to the State that violates assigned water quality standards.

4. Waste in landfills with a disposal area less than two acres shall be placed above the seasonal high water table.

5. Waste in landfills with a disposal area greater than two acres shall be placed a minimum of four feet above the seasonal high water table.

(G) The facility shall meet the following additional minimum buffer requirements:

1. 50 feet from the waste boundary to all surface waters of the State.

2. 100 feet from the disposal or processing area to residential dwellings or places of business which were occupied or utilized for business purposes prior to the commencement of operations, unless written approval has been obtained from either the Department or each affected resident or business operator; 100 feet from any drinking water supply well.

### III. Application Requirements for LCD Facilities

Five sets of plans, maps, and reports shall be required with each application. The seal of the professional engineer is required when submitting plans for a LCD landfill or processing facility.

(A) The following information is required in order to review and approve the siting of a LCD facility:

1. An approval letter from the unit of local government having zoning authority over the area where the facility is to be located stating that the site meets all the requirements of the local zoning ordinance, or that the site is not zoned.

2. Location on a county road map.

3. Information showing that the bottom elevation of the waste shall be four feet above the seasonal water table. Seasonal high water table elevations shall be obtained

from on site borings, test pits, or from other geological or water table investigations, studies, or reports from the immediate area of the proposed facility.

4. A written report indicating that the facility will comply with all siting criteria established in this Subpart.

5. A copy of the deed or other legal description of the site that would be sufficient as a description in an instrument of conveyance, showing the property owner's name.

6. Any other information pertinent to the suitability of the proposed facility.

(B) The following shall be provided on a map or aerial photograph with a scale of at least one inch equals four hundred feet showing the area within one-fourth mile of the site:

1. The entire property or portion thereof owned or leased by the person providing the disposal site.

2. The location of all homes, buildings, public or private utilities, roads, wells, watercourses, water or other impoundments, and any other applicable features or details.

3. Flood plain boundaries, if any.

4. Wetland boundaries, if any.

5. Historical or archeological sites, if any.

6. Park, scenic, or recreation area boundaries, if any.

(C) Development and design plans and details, on a scale of at least one inch equals one hundred feet with one inch equals forty feet preferred, and specifications containing the following information shall be submitted with the permit application:

1. Property or site boundary, fully dimensioned with bearings and distances, tied to grid coordinates where reasonably feasible.

2. Easements and rights-of-ways.

3. Existing pertinent on site and adjacent structures such as houses, buildings, wells, roads and bridges,

water and sewer utilities, septic fields, and storm drainage features.

4. Proposed and existing roads, points of ingress and egress along with access control such as gates, fences, or berms, along with a demonstration that the facility will be manned and will operate only between the hours of sunup and sundown.

5. Buffer and set back lines along with the buffered boundary or feature.

6. Springs, streams, creeks, rivers, ponds, and other waters and impoundments.

7. Boundary of the proposed disposal or processing area.

8. Existing topography with contours at a minimum of five foot intervals. Where necessary, a smaller interval shall be utilized in order to clarify existing topographic conditions.

9. Proposed excavation, grading, and final contours at a minimum of five foot intervals. Where necessary, a smaller interval shall be utilized to clarify proposed grading. Excavation, grading, and fill material side slopes shall not exceed three to one (3:1).

10. Where on site borrow for operational and/or final cover is proposed, indicate the borrow excavation and grading plan with contours at a minimum of five foot intervals. Where necessary, a smaller interval shall be utilized to clarify proposed grading.

11. Proposed surface water control features and devices such as slope drains, storm water pipes, inlets, culverts, and channels.

12. Information showing that the project meets the requirements for storm water discharges and sedimentation control.

13. The location of test boring or test pits, if used to determine the seasonal high water table elevation, shall be used on the plans.

14. A minimum of two cross-sections, one along each major axis, per operational area showing original elevations, proposed excavation, and proposed final elevations.

(D) An operational plan addressing the following information must be developed and approved by the Department. The plan must contain the following information:

1. Name, address, and phone number of the individual responsible for operation and maintenance of the facility.
2. Projected use of the land after completion.
3. A description of systematic usage of the disposal area, operation, orderly development and closure of the landfill.
4. The type, source, and quantity of land clearing waste to be accepted.
5. An emergency contingency plan, including fire fighting procedures, that has been approved by the local fire marshal.

IV. Additional Operational Requirements for all LCD Facilities

(A) LCD Processing or disposal facilities are subject to all of the requirements described in 40 C.F.R. Sections 258.20, .22, .23, .24, .25, .26, and .27.

(B) The facility shall only accept those land clearing wastes it is specifically permitted to receive.

(C) Solid waste that is disposed of shall be restricted to the smallest area feasible and compacted as densely as practical into cells.

(D) Adequate soil cover, of six inches or more, shall be applied weekly, or when the active area reaches one-quarter of an acre, whichever occurs first.

(E) The entire disturbed area used for disposal purposes must be covered with at least two feet of compacted cover material with the top six inches capable of sustaining vegetative growth, and which is sloped to allow surface water runoff in a controlled manner. The cover must be placed within 30 working days or 120 calendar days upon completion of any phase of landfill development. The Department may require any additional corrective action or remediation it deems necessary to correct any condition which is or may become injurious to the public health or the environment.

(F) The facility shall be adequately secured by means of gates, chains, berms, fences, etc. to prevent unauthorized access except when a trained operator is on duty. An attendant

shall be on duty at all times when the facility is open to assure compliance with operational requirements and to prevent the acceptance of unauthorized waste.

(G) Access roads shall be of all-weather construction and be properly maintained.

(H) Surface water shall be diverted from the working face and shall not be impounded over waste.

(I) Solid waste shall not be disposed of in water.

(J) The open burning of land clearing waste is strictly prohibited.

(K) The concentration of explosive gases generated by the facility shall not exceed:

1. Twenty-five percent of the lower explosive level for the gases in facility structures.

2. The lower explosive limit for the gases at the property boundary.

(L) Leachate shall be properly managed on or off site through the use of management practices specifically approved by the Department.

(M) Should the Department deem it necessary, groundwater or surface water monitoring, or both, may be required.

(N) A sign shall be posted at the facility entrance showing the contact name and number in case of an emergency and, if applicable, the permit number.

We believe that our proposed approach is both necessary and fair-- it recognizes that different, yet still protective, requirements can be developed for LCD facilities that accept only natural land clearing debris, while recognizing that the vast majority of the traditional C & D wastes should be handled at facilities that at a minimum satisfy Part 258 requirements. It would require the revisions of several proposed sections of the Oregon regulations, including OAR 340-93-030, 340-93-050 (2)(b), 340-93-080 (2), and Division 95.

**THE OREGON REGULATIONS SHOULD PROHIBIT, OR AT A MINIMUM SIGNIFICANTLY RESTRICT, THE OPEN BURNING OF SOLID WASTE AT ANY SITE OR FACILITY**

Proposed OAR 340-94-040 would continue to authorize the open burning of solid waste "at a permitted solid waste disposal site which received a variance from the Commission for such open burning

before the effective date of this rule." Such facilities could continue to engage in open burning practices until July 31, 1996. We do not believe such an approach is consistent with the Part 258 prohibition, see 40 C.F.R. Section 258.24 (b), and we urge the Department to immediately prohibit open burning in Oregon.

The Subtitle D rules provide that "open burning of solid waste, except for the infrequent burning of agricultural wastes, silvicultural wastes, landclearing debris, diseased trees, or debris from emergency cleanup operations, is prohibited at all MSW units." As the EPA explained,

(t)he rationale for banning open burning of solid waste in 1979 is equally applicable today; that is, the hazards posed to human health by allowing the open burning of solid waste (e.g., the increase in particulate emissions, decreased safety) outweigh any benefits derived from the practice. For example, EPA has data indicating that smoke from open burning can reduce aircraft and automobile visibility and has been linked to automobile accidents and deaths on expressways. Open burning may result in uncontrolled emissions of hazardous constituents that pose a threat to human health and the environment. Furthermore, commenters did not submit data to support their claims that open burning poses less of an environmental threat than does landfilling the waste. EPA decided that any cost savings did not outweigh the benefits to human health and the environment in this case.

56 Fed. Reg. at 51,053. Similarly, the Agency viewed skeptically claims that certain devices, such as air curtain destructors, could effectively be used for open burning activities. *Id.* While the Agency chose to tolerate the "infrequent burning of certain materials", *id.*, we believe that Oregon should institute a complete ban. The open burning of waste removes substantial portions of a waste stream that could be returned to a good use through effective recycling/composting techniques.

**THE GAS MONITORING REQUIREMENTS DESCRIBED AT PROPOSED OAR 340-93-040 (5) SHOULD BE REVISED TO ENSURE CONSISTENCY WITH THE FORTHCOMING NEW SOURCE PERFORMANCE STANDARD FOR LANDFILLS**

We urge the Department to take the opportunity presented by this rulemaking to ensure that the solid waste landfill regulations pertaining to gas monitoring are consistent with any New Source Performance Standard ("NSPS") issued by the EPA for certain new and existing municipal solid waste landfills. The NSPS, which will likely be issued within the next several months, will impose specific requirements pertaining to the installation and design of gas control and collection systems. The proposed NSPS endorses the approval by state air pollution control agencies of control systems that are designed for site-specific conditions.



The forthcoming Standard will comprehensively address gas collection, migration, and control measures for facilities subject to the NSPS. Accordingly, we recommend that the Department's regulations be revised to specifically provide that:

Owners and operators of all facilities subject to any applicable requirements developed under a State Implementation Plan ("SIP") approved or promulgated by the Administrator of the U.S. Environmental Protection Agency pursuant to Section 110 of the Clean Air Act, as amended, must ensure that the facility does not violate applicable requirements. Such requirements will, for facilities subject to the SIP requirements, supersede any conflicting or inconsistent requirements of these regulations.

Our proposed language will ensure that facilities subject to the NSPS comply with applicable Clean Air Act obligations, while avoiding the possibility of inconsistent or preempted requirements pursuant to the landfill rules. Facilities that may not be subject to the NSPS but have areas with a potential for gas production or migration should be subject to each of the requirements set forth in the proposal.

**PROPOSED OAR 340-93-190 (C) SHOULD BE DELETED TO ENSURE THAT INFECTIOUS WASTES ARE HANDLED AND DISPOSED OF PROPERLY**

We urge the Department to delete proposed OAR 340-93-190 (C) in order to further the goal of developing infectious waste regulations that protect human health and the environment. Section 340-93-190 (C) would provide that a new regulatory category of "medical waste" could be disposed of "without special treatment in municipal solid waste landfills permitted by the Department if such disposal is not prohibited in the permit." While the proposed definition of "medical waste" is not clear, it would appear to remove a significant quantity of materials from the "infectious waste" regulations and hence from any requirements for treatment or decontamination. Accordingly, proposed OAR 340-93-190 (C) would promote the land disposal of untreated waste "that is generated as a result of patient diagnosis, treatment, or immunization of human beings or animals"--the same types of waste that are highly regulated in almost all of the States.

Only a handful of states permit, under any circumstances, the land disposal of untreated medical waste. The EPA and the Occupational Safety and Health Administration have consistently cautioned against such a practice, noting that unregulated land disposal presents substantial and unnecessary risks to health care workers, waste collection personnel, and landfill employees. See, e.g., EPA, Medical Waste Management in the United States, EPA/530-SW-90-051A (May, 1990), at 6-1. See also EPA Guide for Infectious Waste Management, EPA/530-SW-86-014 (May, 1986); EPA, Report to Congress on Solid Waste Disposal in the United States, EPA/530-SW-88-011

(Oct., 1988). Moreover, the handling, transportation, and disposal of entirely untreated and unregulated medical waste can hardly be consistent with the requirements of the OSHA Bloodborne Pathogens Standard, 29 C.F.R. Section 1910.1030.

The proposed approach would be a throwback--for reasons that are nowhere addressed in the proposed regulations or background documents--to another era. In the past, states commonly allowed the landfilling of medical/infectious waste without treatment, but there are very few today that allow such a practice. We are unaware of any justification for the proposed "exemption", and we strongly urge the Department to delete the proposed section in its entirety.

**PROPOSED OAR 340-93-040 (4) SHOULD BE DELETED**

The proposal would provide that "(n)otwithstanding any other provision of law relating to solid waste disposal, if the laws of any state prohibit or restrict the disposal of any kind of solid waste within the state of origin, such prohibition or restriction also shall apply to the disposal of the out-of-state waste in Oregon." We note that such provisions have consistently been invalidated by the federal courts pursuant to the Commerce Clause of the U.S. Constitution--indeed, no such "reciprocity" provision has ever been upheld. See, e.g., National Solid Wastes Management Association v. Alabama Department of Environmental Management, 910 F.2d 713, 718-719 (11th Cir. 1990), modified, 924 F.2d 1001, cert. denied, 501 U.S. \_\_\_\_ (1991); Hazardous Waste Treatment Council v. South Carolina, 945 F.2d 281 (4th Cir. 1991); Hardage v. Atkins, 582 F.2d 1264 (10th Cir. 1978), aff'd after remand, 619 F.2d 871 (10th Cir. 1980).

**CONCLUSION**

BFI appreciates the opportunity to review the proposed regulations. We would be pleased to meet with the Department to discuss our recommendations in greater detail.

Very truly yours,



Marc Aprea  
Director, External Affairs

Enclosures

Note: Mr. Aprea submitted extensive attachments to his letter. These are available for perusal upon request.

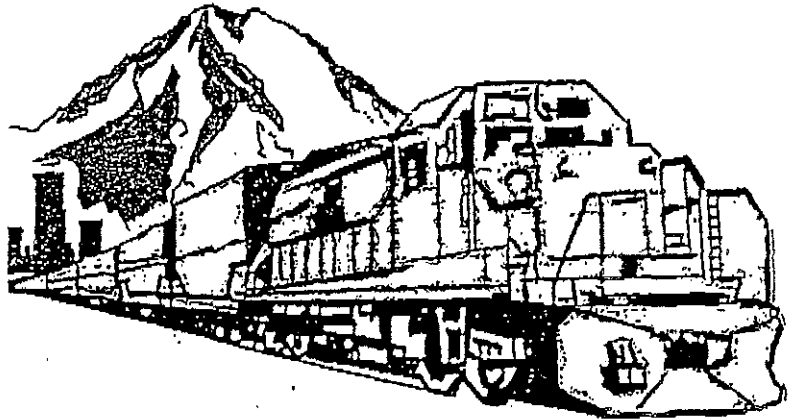


A Waste Management Company

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FROM: Doug Coenen

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Star Rt. Box 6  
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503/454-2030 • FAX: 503/454-2133



A Waste Management Company

January 25, 1993

Deanna Mueller-Crispin  
Hazardous and Solid Waste Division  
Department of Environmental Quality  
811 SW Sixth Ave.  
Portland, OR 97204

Subject: Comments on Revised Solid Waste Rules

Dear Deanna:

Thank you for the opportunity to submit the enclosed comments to the Department on the draft versions of OAR 340 Divisions 93-97, the revised Solid Waste Rules. We generally applaud DEQ's efforts in upgrading the old rules, and appreciate your efforts to date in considering comments raised through deliberations of the Solid Waste Advisory Committee. Oregon Waste Systems, Inc. fully supports the overall intention of strengthening the rules and the Department's efforts to achieve "Approved-State" status from USEPA for implementing the Subtitle D requirements.

We look forward to your consideration of our comments. If you have any questions, please do not hesitate to contact me.

Sincerely,  
OREGON WASTE SYSTEMS, INC.

Doug Coenen  
Division President  
and General Manager

cc: Sam Jiries, OWS  
Bruce Hammon, DEQ

DWC:RevSWR.dd

Comments from  
OREGON WASTE SYSTEMS, INC.  
on the proposed rules  
OAR 340 Divisions 93-97  
Solid Waste Management

1. Page A-14, 340-93-070(3)(c):

In some cases, other permit requirements may not be completely known or understood at the time of applying to the Department for a solid waste permit. Examples include detailed building permits, sewage system permits, and the like which are usually not applied for until construction plans are developed. There may be other cases where DEQ's review may suggest that other permits are required, such as air quality permits and NPDES-type permits. Therefore, we suggest this subsection be revised to read as follows:

"(c) Identify any other known or anticipated permits from the Department or other government agencies. If previously applied for, include a copy of such permit application and if granted, a copy of such permit."

2. Page A-26, 340-93-210(2)(b)(A)

We are concerned that requiring storage bins to be watertight is an unreasonably difficult standard to achieve on a continuous basis. Solid waste containers are usually moved about, lifted, pushed, and otherwise abused, which results in wear and tear. We believe that bins should be periodically inspected and repaired to maintain general integrity, but it is impossible from a practical standpoint to expect storage bins to be "watertight" all of the time. Therefore, we propose that the first sentence be replaced by the following, which would establish the same standard for bins as proposed for storage vehicles:

"(A) Storage bins and storage vehicles shall be designed and maintained to minimize leakage or spillage."

3. Page A-27, OAR 340-93-220(1)(9)

The same comment as we provided for OAR 340-93-210(b)(A) applies here. We propose the word "prevent" be replaced by the word "minimize".

If the Department is concerned that this may not provide sufficient protection or enforcement latitude, we suggest a statement such as the following be added:

"Collection and transfer vehicles shall be operated and maintained in a manner so as to prevent the development of nuisance conditions or a threat to human

health or the environment".

4. Page A-33, 340-94-040(9)

To be consistent with the second sentence, we suggest that the work "frequency" in the third sentence be replaced by "procedures".

5. Pages A-44 and A-45

For easier reference, we suggest the titles of 340-94-120 and 130 be shortened to simply "Closure Requirements" and "Post-Closure Requirement", respectively.

6. Page A-45, 340-94-120(4)

We assume that these requirements apply only to final closure at a site, but not to incremental capping activities that are systematically performed on previously-filled areas of operating sites. Therefore, we propose that the word "final" be inserted before "closure" in each case where the word "closure" is used in this section.

7. Page A-57/58, 340-95-020(3)(b)

We believe that it is particularly important for non-municipal landfills that the Operations Plan identify explicitly which wastes are not acceptable. Such a listing, when coupled with the listing of wastes which are acceptable (in the Permit and Operations Plan/Special Waste Management Plan) will ensure more complete clarity on this important issue. Therefore, we propose that this sub-section be rewritten as follows:

"(b) A listing of unacceptable wastes, and a program for detecting and preventing the disposal at the facility of regulated hazardous wastes, regulated polychlorinated biphenyl wastes, and other unacceptable wastes."



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10

1200 Sixth Avenue  
Seattle, Washington 98101

January 27, 1993

Ms. Deanna Mueller-Crispin  
Solid Waste Permits & Compliance Section  
Oregon Department of Environmental Quality  
811 S.W. 6th Avenue  
Portland, Oregon 97204

Dear Ms. <sup>Deanna</sup>~~Mueller-Crispin~~,

Thank you for providing the opportunity for the Environmental Protection Agency Region 10 (EPA) to comment on Oregon's draft solid waste rule revisions. Steve Sharp and I reviewed the November 1992 draft of the revisions and offer several comments.

As you are aware, some of Oregon's statutes conflict with the Federal landfill regulations and Oregon will not be able to apply for full program approval from EPA until the statutory changes are made. With a few changes to the November draft rule revisions, however, Oregon will be able to successfully apply for partial approval. With partial approval, Oregon will be able to take advantage of the flexibility in the Federal landfill Criteria in the areas where Oregon has received approval. In the areas which do not receive approval, the Federal Criteria will be the relevant standard.

Our comments fall in four different areas: open burning, financial assurance, land application of sewage sludge, and definitions. Each is discussed below.

OPEN BURNING

Section 340-94-040 (2) prohibits open burning of solid waste after July 31, 1996 but allows open burning at permitted landfills which have a variance. Open burning currently is illegal under 40 CFR 257.3-7(a) and is prohibited in the Criteria at 40 CFR 258.24(b). EPA cannot approve a solid waste regulation that permits open burning.

In addition, all regulatory and statutory shortcomings must be remedied by October 9, 1995, or the state loses partial approval and no longer can take advantage of the flexibility in the Federal Criteria. The July 1996 deadline exceeds the partial approval deadline by almost 10 months. This could jeopardize approval status of Oregon's solid waste permit program.

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

# of pages = 3

To	JAN Whitworth	From	PAULA VANHAGEN
Dept./Agency	OREGON DEQ	Phone #	553-1847
Fax #	553-1847	Fax #	





I recommend, with the concurrence of EPA's Office of Regional Counsel, that this paragraph be revised accordingly. The first sentence should prohibit open burning at a landfill, with no exceptions. The second sentence should be deleted. The final sentence, regarding infrequent burning, does not need to change.

In addition to revising the language in Section 340-94-040 (2), I recommend that the Department of Environmental Quality (DEQ) issue enforcement orders with schedules for phasing out open burning before October 9, 1995. The EPA Office of Regional Counsel concurs.

#### FINANCIAL ASSURANCE

Section 340-94-100 (3) exempts from the financial assurance requirements any municipal solid waste (MSW) landfill that stops receiving waste before October 9, 1993. In order to qualify for this exemption, the Federal Criteria, in 40 CFR 258.1(d), require that MSW landfills stop receiving waste before October 9, 1993, and complete the cover within six months. The Oregon provision must add the second condition.

In addition, the Federal Criteria require closure and post-closure costs to be adjusted on an annual basis to compensate for inflation. This requirement would be clearer to owners and operators if it were repeated in section 340-94-100 (4). For the regional landfills, the requirement for annual adjustment should be specified to avoid confusion with the evaluation of the financial assurance plan every five years.

#### LAND APPLICATION OF SEWAGE SLUDGE

The land application of sewage sludge must comply with 40 CFR 257 and the Clean Water Act, section 405. Without further information, it is not clear whether or not Oregon's current regulations or the solid waste revisions comply with the Federal requirements.

#### DEFINITIONS

(28) Household Waste. Oregon uses the phrase "residential waste" instead of household waste. This point is worth noting in the program application.

(31) Financial Assurance. The definition does not mention that it will cover corrective action, presumably because statutory authority is lacking. When Oregon obtains the statutory changes needed for full program approval, this definition should be revised to reflect that corrective action should be included.

(30) Industrial Solid Waste. The rule refers to ORS 465 and 466 in the first sentence, whereas the Criteria refer to Subtitle C of RCRA. The rule should refer to RCRA Subtitle C in addition to the ORS since Subtitle C is broader.

(46) Leachate. Both the Criteria in 40 CFR 258 and the current regulation in 40 CFR 257 include "miscible" in this definition. Oregon should include "miscible" unless there is a strong reason for not including it.

(81) Vectors. The Oregon rule states "diseases from one person to another" whereas the Federal Criteria includes the transfer of disease from animals. Because the Criteria definition is broader in scope, Oregon should revise its definition to be comparable.

### CONCLUSION

The comment on open burning and the first comment on financial assurance are serious concerns. It is critical to Oregon's partial approval that these changes be made. Our other comments also are important. We strongly urge that the DEQ adopt them as well.

I understand that the DEQ is seeking statutory changes to ensure DEQ has full authority for financial assurance and corrective action requirements, and 30 years of post-closure care. When these statutory changes and subsequent rule revisions are enacted, EPA will welcome an application for full approval.

Please feel free to call me at (206) 553-1847 or Steve Sharp at (206) 553-6517 to ask questions regarding these comments, the Criteria, or the approval process. We look forward to seeing your application for partial approval.

Sincerely,



Paula vanHaagen, Acting Supervisor  
Solid Waste Program

cc: John Hamill, EPA/ORC  
Ken Brooks, EPA/OOO  
Steve Sharp, EPA/SWP

RECEIVED

FEB 1 1993

Hazardous & Solid Waste Division  
Department of Environmental Quality

Oregon

DEPARTMENT OF  
TRANSPORTATION

AERONAUTICS

January 27, 1993

Department of Environmental Quality  
Hazardous and Solid Waste Division  
811 SW 6th Avenue, 7th Floor  
Portland, OR 97204

Rulemaking Proposal - Revision of Solid Waste Rules to Adopt  
Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

Oregon Aeronautics has reviewed the Oregon Department of Environmental Quality's proposed revisions to administrative rules governing solid waste management. Given that the purpose of the proposed rules are to protect the environment and public health, Oregon Aeronautics recommends that proposed sections 340-94-030, and 340-95-010 entitled "Location Restrictions", include guidelines regarding the development of waste disposal sites in the vicinity of airports.

As identified in OAR 340-61-015, inadequate solid waste collections, storage, transportation, recycling, and disposal practices cause potential hazards to public health and safety. The Federal Aviation Administration has concluded through various observations that waste disposal sites attract birds. Disposal sites located in the vicinity of airports pose a serious hazard to aircraft operations and a threat to public health and welfare.

Federal Aviation Administration Advisory Circular 150/5200-33, attached, provides guidance concerning the establishment of landfills or similar facilities on or near the vicinity of airports. The role of the FAA is to ensure that federally obligated airport owners meet contractual obligations regarding compatible land use in the vicinity of the airport. Since the FAA neither approves nor disapproves locations of waste disposal sites, Oregon Aeronautics can only discourage development of these facilities in the proximity of airports.

Oregon Aeronautics requests full consideration be given to incorporating these guidelines into the proposed rule change. Our recommendation corresponds to the Department of Environmental Quality's policy, as stated in OAR 340-61-015, to promote and support solid waste management planning, insuring the highest and best practical protection of public health and welfare.

If you need any additional information or would like to discuss this issue further, please contact Gary Viehdorfer or myself at 378-4880.

*Teresa Penninger*

Teresa Penninger  
Aviation Planner

enclosure



3040 25th Street SE  
Salem, OR 97310-0100  
(503) 378-4880  
FAX (503) 373-1688

# Advisory Circular

U.S. Department  
of Transportation

Federal Aviation  
Administration

*Gene Le Boeuf* D.C.

Subject:

Date:  
Initiated by: AAS-300

AC No: 150/5200-33  
Change:

1. PURPOSE. This advisory circular (AC) provides guidance concerning the establishment, elimination or monitoring of landfills, open dumps, waste disposal sites compost operations or similarly titled facilities on or in the vicinity of airports.

2. FOCUS. This AC is not intended to resolve all related problems, but it is specifically directed toward eliminating incompatible waste disposal sites, landfills, compost operations and similarly titled facilities in the proximity of airports, thus providing a safer environment for aircraft operations.

### 3. BACKGROUND.

a. Landfills, garbage dumps, sewer or fish waste outfalls and other similarly licensed or titled facilities used for operations to process, bury, store or otherwise dispose of waste, trash and refuse may attract rodents and birds. Where the dump is ignited and produces smoke, an additional hazard is created. All of the above are undesirable and potential hazards to aviation since they erode the safety of the airport environment.

b. The Federal Aviation Administration (FAA) neither approves nor disapproves locations of the above facilities. Such action is the responsibility of the Environmental Protection Agency and/or the appropriate state and local agencies. The role of the FAA is to ensure that federally obligated airport owners and operators meet their contractual obligations to the United States Government regarding compatible land uses in the vicinity of the airport.

c. While the chance of an unforeseeable, random bird strike in flight will always exist, it is nevertheless possible to define conditions within fairly narrow limits where the risk is increased. Those high-risk conditions exist in the approach and departure patterns areas on and in the vicinity of airports. According to a recent FAA survey, 80

percent of all bird strikes occur on take-off, landing, and taxi operations.

d. The number of bird strikes reported on aircraft is a matter of continuing concern to the FAA and to airport management. Various observations support the conclusion that waste disposal sites attract birds. Accordingly, disposal sites located in the vicinity of an airport are potentially incompatible with safe flight operations and should be eliminated.

### 4. DISCUSSION.

a. Waste disposal sites located or proposed to be located within the areas established for an airport by the guidelines set forth in paragraph 5a, b, and c of this AC should not be allowed to operate. When airport owners receive a notice or proposal to construct a landfill near their facility, guidance may be required and the FAA must be in a position to assist. Some airports are not under the jurisdiction of the community or local governing body having control of land usage in the vicinity of the airport. In these cases, the airport owner should use its resources and exert its best efforts to close or control waste disposal operations within the general vicinity of the airport. If a waste disposal site is incompatible with an airport in accordance with guidelines of paragraph 5 and cannot be closed within a reasonable time, it should be operated in accordance with the criteria and instructions issued by Federal agencies, such as the Environmental Protection Agency and the Department of Health and Human Services, and other such regulatory bodies that may have applicable requirements. Airport owners or operators and waste disposal proponents should not locate, permit, or concur in the location of a landfill or similar facility on or in the vicinity of airports.

(1) Additionally, any operator proposing a new or expanded waste disposal site within 5 miles

AC 150/5200-33

of a runway end should notify the airport and the appropriate FAA Airports office so as to provide an opportunity to review and comment on the site in accordance with guidance contained in this AC.

b. The operation of a disposal site located beyond the areas described in paragraph 5 should be properly supervised to insure compatibility with the airport.

c. If at any time the disposal site, by virtue of its location or operation, presents a potential hazard to aircraft operations, the owner of the disposal site should take action to correct the situation or terminate operation of the facility. If the owner of the airport also owns or controls the disposal facility and is subject to Federal obligations to protect compatibility of land uses around the airport, failure to take corrective action could place the airport owner in noncompliance with its commitments to the Federal government. The appropriate FAA Airports office will evaluate the situation to determine compliance with Federal agreements and take such action as may be warranted.

(1) Airport owners should be encouraged to make periodic inspections of current operations of existing disposal sites near a federally obligated airport where potential bird hazard problems have been reported.

d. At airports certificated under Federal Aviation Regulations Part 139, the airport certification manual/specifications should require disposal site inspections at appropriate intervals for those operations meeting the criteria of paragraph 5 that cannot be closed. These inspections are necessary to assure that bird populations are not increasing and that appropriate control procedures are being established and followed.

e. When proposing a disposal site, operators should make their plans available to the appropriate state regulatory agencies. Many states have criteria concerning siting requirements specific to their jurisdictions.

f. Additional information on waste disposal, bird hazard and related problems may be obtained from the following agencies:

U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, DC 20406

U.S. Department of Health and Human Services  
200 Independence Avenue, SW  
Washington, DC 20201

U.S. Department of Agriculture  
Animal Plant Health Inspection Service  
P.O. Box 96464  
Animal Damage Control Program  
Room 1624 South Agriculture Building  
Washington, DC 20090-6464

U.S. Department of Interior Fish and  
Wildlife Service  
18th and C Streets, NW  
Washington, DC 20240

5. **CRITERIA.** Disposal sites are considered as incompatible if located within areas established for the airport through the application of the following criteria:

a. Waste disposal sites located within 10,000 feet of any runway end used or planned to be used by turbine powered aircraft.

b. Waste disposal sites located within 5,000 feet of any runway end used only by piston powered aircraft.

c. Any waste disposal site located within a 5-mile radius of a runway end that attracts or sustains hazardous bird movements from feeding, watering or roosting areas into, or across the runways and/or approach and departure patterns of aircraft.

6. **QUESTIONS AND COMMENTS.** If you have questions about this AC, write or call the Federal Aviation Administration, Office of Airport Safety and Standards, Airport Safety and Operations Division, AAS-300, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-3085 or FTS 267-3085. Comments and suggestions for change or improvement of this AC may be submitted similarly, although written material is preferred.

January, 27, 1993

Oregon Department of Environmental Quality,  
Hazardous and Solid Waste Division,  
811 S.W. Sixth Avenue, 7th Floor,  
Portland, Oregon 97204

RECEIVED

JAN 27 1993

Hazardous & Solid Waste Division  
Department of Environmental Quality

Dear Sir:

in response to your request for  
comments on Revision of Solid Waste Rules 'etc.',

I am enclosing several studies and articles  
which document the fact that gypsum waste  
wallboard is not an 'inert' substance  
and therefore should not be used in any  
agricultural application without extensive  
research and further, that waste wallboard  
should not be permitted in landfills  
whenever it can be recycled back into  
wallboard for less money than landfilling it.

Gypsum waste wallboard is 100% re-  
cyclable. The new West Gypsum plant at Ely,  
Washington has the capacity to ~~handle~~ <sup>recycle</sup> all of  
the waste wallboard in all of Oregon, Idaho  
and Washington.

One other person and myself own  
and operate a transfer station (material  
recovery facility) in Troselin, Oh. We began in  
April 1992 and took in 18 tons that month.  
In December 1992 we took in 500 tons. The quarter

40000 tons annually, so we've only scratched the surface. We only charge \$45.<sup>00</sup> per ton to accept ~~the~~ gypsum waste wallboard and all wallboard related waste. The three major Potlatch area landfill transfer stations which haul to Arkington, OK charge \$75.<sup>00</sup> per ton.

It doesn't make any sense to put it in the ground for \$75.<sup>00</sup> per ton when we can recycle it back to its original state for \$45.<sup>00</sup> per ton. So, we recommend the rules be updated in whatever way you deem reasonable to accomplish that goal.

In that regard, I suggest under Prohibited Disposal [New Rule] 346-93-040 that an additional item ~~may~~ be added under (3), (F.) Gypsum wallboard, a.k.a. Drywall, Drylok, Plasterboard, & Chetrock.

This prohibition would apply only where there is a wallboard transfer station or recycling facility in the area. you would have to define how great an area. I suggest within an hour's drive or say 50 miles of the facility.

Gypsum wallboard should be defined specifically in such a way that it cannot be considered inert since it contains high levels of lead and numerous unknown chemical additives which are water soluble and leach. It also has a high sulphur ~~content~~ content, (16-20%).

Because of the many additives; hardeners, fillers, foaming agents, dispersants, fungicides, preservatives, and retardants plus 7-10 lbs of fiberglass per ton, 3# of Boron per ton and the paper dioxins, it should not be permitted for land application, Definition (43).

Additionally, Gypsum wallboard should be classified as a Leachate, Definition (46) due to the lead, ~~and paper dioxins~~

Because no one person on the planet knows all of the 'secret' formulas of all of the wallboard manufacturers, nobody knows what all is in waste wallboard.

However, because of what is known about the many chemical additives and compounds and metals and the high sulfur content, many Canadian governmental bodies have outlawed its disposal in landfills when there is a recycling back to wallboard alternative.

The only opposition that has developed to recycling (at a lower cost even) has been from ~~those~~ <sup>those</sup> who derive income from the landfills, i.e., owners and governmental entities ~~those~~ who get money from the landfills and those few who collect it, grind it up and sell it to farmers as a 'fertilizer' or 'agricultural supplement' or as 'cattle bedding'. The enclosed articles will cover the danger to animals.

Drs Wm Burk and Jeff Hart of the Noterial Animal Poison Control Center, Urbana, Ill. will gladly tell you on their 800 number hot line that the sulphur content alone causes polioencephalomalacia (PEM) or in laymans terms, 'rotting of the gray matter, i.e., Brain Rot'!

Cordially,

Bob Hyland, President/Owner  
Gypsum Wallboard Recycling  
1120 S.W. Industrial Way, P.O. #3  
Tualatin, OR 97062  
(503) 691-9765

P.S. Page A-3 under (17) suggest you pull the word 'Plaster' since it's a gypsum based product



Note: Mr. Hyland submitted extensive attachments to his letter. These are available for perusal upon request.

Post-it<sup>®</sup> brand

Fax Transmittal Memo 7672

To HAZARDOUS & SOLID WASTE DIVISION

Company OEQ

Location

Fax # 229-6124

Telephone # 229-6509

Comments Attached are comments

No. of Pages 3

Today's Date 1/27/93

Time 2:35

From TERESA PENNINGER

Company OREGON AERONAUTICS

Location SALEM

Dept. Charge

Fax # 373-1688

Telephone # 378-4880

Original Disposition:  Destroy

Return

Call for pickup

regarding the  
REVISION OF SOLID WASTE RULES TO ADOPT  
FEDERAL CRITERIA FOR MUNICIPAL SOLID WASTE LANDFILLS  
("SUBTITLE D")

Oregon

RECEIVED

DEPARTMENT OF  
TRANSPORTATION

January 27, 1993

JAN 28 1993

AERONAUTICS

Department of Environmental Quality  
Hazardous and Solid Waste Division  
811 SW 6th Avenue, 7th Floor  
Portland, OR 97204

Hazardous & Solid Waste Division  
Department of Environmental Quality

Rulemaking Proposal - Revision of Solid Waste Rules to Adopt  
Federal Criteria for Municipal Solid Waste Landfills ("Subtitle D")

Oregon Aeronautics has reviewed the Oregon Department of Environmental Quality's proposed revisions to administrative rules governing solid waste management. Given that the purpose of the proposed rules are to protect the environment and public health, Oregon Aeronautics recommends that proposed sections 340-94-030, and 340-95-010 entitled "Location Restrictions", include guidelines regarding the development of waste disposal sites in the vicinity of airports.

As identified in OAR 340-61-015, inadequate solid waste collections, storage, transportation, recycling, and disposal practices cause potential hazards to public health and safety. The Federal Aviation Administration has concluded through various observations that waste disposal sites attract birds. Disposal sites located in the vicinity of airports pose a serious hazard to aircraft operations and a threat to public health and welfare.

Federal Aviation Administration Advisory Circular 150/5200-33, attached, provides guidance concerning the establishment of landfills or similar facilities on or near the vicinity of airports. The role of the FAA is to ensure that federally obligated airport owners meet contractual obligations regarding compatible land use in the vicinity of the airport. Since the FAA neither approves nor disapproves locations of waste disposal sites, Oregon Aeronautics can only discourage development of these facilities in the proximity of airports.

Oregon Aeronautics requests full consideration be given to incorporating these guidelines into the proposed rule change. Our recommendation corresponds to the Department of Environmental Quality's policy, as stated in OAR 340-61-015, to promote and support solid waste management planning, insuring the highest and best practical protection of public health and welfare.

If you need any additional information or would like to discuss this issue further, please contact Gary Viehdorfer or myself at 378-4880.

*Teresa Penninger*

Teresa Penninger  
Aviation Planner

enclosure



3040 25th Street SE  
Salem, OR 97310-0100  
(503) 378-4880  
FAX (503) 373-1688

U.S. Department  
of Transportation  
Federal Aviation  
Administration

# Advisory Circular

*Gene Le Boeuf D.C.*

Subject:

Date:

AC No: 150/5200-33

Initiated by: AAS-300

Change:

1. **PURPOSE.** This advisory circular (AC) provides guidance concerning the establishment, elimination or monitoring of landfills, open dumps, waste disposal sites compost operations or similarly titled facilities on or in the vicinity of airports.

2. **FOCUS.** This AC is not intended to resolve all related problems, but it is specifically directed toward eliminating incompatible waste disposal sites, landfills, compost operations and similarly titled facilities in the proximity of airports, thus providing a safer environment for aircraft operations.

### 3. BACKGROUND.

a. Landfills, garbage dumps, sewer or fish waste outfalls and other similarly licensed or titled facilities used for operations to process, bury, store or otherwise dispose of waste, trash and refuse may attract rodents and birds. Where the dump is ignited and produces smoke, an additional hazard is created. All of the above are undesirable and potential hazards to aviation since they erode the safety of the airport environment.

b. The Federal Aviation Administration (FAA) neither approves nor disapproves locations of the above facilities. Such action is the responsibility of the Environmental Protection Agency and/or the appropriate state and local agencies. The role of the FAA is to ensure that federally obligated airport owners and operators meet their contractual obligations to the United States Government regarding compatible land uses in the vicinity of the airport.

c. While the chance of an unforeseeable, random bird strike in flight will always exist, it is nevertheless possible to define conditions within fairly narrow limits where the risk is increased. Those high-risk conditions exist in the approach and departure patterns areas on and in the vicinity of airports. According to a recent FAA survey, 80

percent of all bird strikes occur on take-off, landing, and taxi operations.

d. The number of bird strikes reported on aircraft is a matter of continuing concern to the FAA and to airport management. Various observations support the conclusion that waste disposal sites attract birds. Accordingly, disposal sites located in the vicinity of an airport are potentially incompatible with safe flight operations and should be eliminated.

### 4. DISCUSSION.

a. Waste disposal sites located or proposed to be located within the areas established for an airport by the guidelines set forth in paragraph 5a, b, and c of this AC should not be allowed to operate. When airport owners receive a notice or proposal to construct a landfill near their facility, guidance may be required and the FAA must be in a position to assist. Some airports are not under the jurisdiction of the community or local governing body having control of land usage in the vicinity of the airport. In these cases, the airport owner should use its resources and exert its best efforts to close or control waste disposal operations within the general vicinity of the airport. If a waste disposal site is incompatible with an airport in accordance with guidelines of paragraph 5 and cannot be closed within a reasonable time, it should be operated in accordance with the criteria and instructions issued by Federal agencies, such as the Environmental Protection Agency and the Department of Health and Human Services, and other such regulatory bodies that may have applicable requirements. Airport owners or operators and waste disposal proponents should not locate, permit, or concur in the location of a landfill or similar facility on or in the vicinity of airports.

(1) Additionally, any operator proposing a new or expanded waste disposal site within 5 miles

## AC 150/5200-33

of a runway end should notify the airport and the appropriate FAA Airports office so as to provide an opportunity to review and comment on the site in accordance with guidance contained in this AC.

b. The operation of a disposal site located beyond the areas described in paragraph 5 should be properly supervised to insure compatibility with the airport.

c. If at any time the disposal site, by virtue of its location or operation, presents a potential hazard to aircraft operations, the owner of the disposal site should take action to correct the situation or terminate operation of the facility. If the owner of the airport also owns or controls the disposal facility and is subject to Federal obligations to protect compatibility of land uses around the airport, failure to take corrective action could place the airport owner in noncompliance with its commitments to the Federal government. The appropriate FAA Airports office will evaluate the situation to determine compliance with Federal agreements and take such action as may be warranted.

(1) Airport owners should be encouraged to make periodic inspections of current operations of existing disposal sites near a federally obligated airport where potential bird hazard problems have been reported.

d. At airports certificated under Federal Aviation Regulations Part 139, the airport certification manual/specifications should require disposal site inspections at appropriate intervals for those operations meeting the criteria of paragraph 5 that cannot be closed. These inspections are necessary to assure that bird populations are not increasing and that appropriate control procedures are being established and followed.

e. When proposing a disposal site, operators should make their plans available to the appropriate state regulatory agencies. Many states have criteria concerning siting requirements specific to their jurisdictions.

f. Additional information on waste disposal, bird hazard and related problems may be obtained from the following agencies:

U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, DC 20406

U.S. Department of Health and Human Services  
200 Independence Avenue, SW  
Washington, DC 20201

U.S. Department of Agriculture  
Animal Plant Health Inspection Service  
P.O. Box 96464  
Animal Damage Control Program  
Room 1624 South Agriculture Building  
Washington, DC 20090-6464

U.S. Department of Interior Fish and  
Wildlife Service  
18th and C Streets, NW  
Washington, DC 20240

5. **CRITERIA.** Disposal sites are considered as incompatible if located within areas established for the airport through the application of the following criteria:

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b. Waste disposal sites located within 5,000 feet of any runway end used only by piston powered aircraft.

c. Any waste disposal site located within a 5-mile radius of a runway end that attracts or sustains hazardous bird movements from feeding, watering or roosting areas into, or across the runways and/or approach and departure patterns of aircraft.

6. **QUESTIONS AND COMMENTS.** If you have questions about this AC, write or call the Federal Aviation Administration, Office of Airport Safety and Standards, Airport Safety and Operations Division, AAS-300, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-3085 or FTS 267-3085. Comments and suggestions for change or improvement of this AC may be submitted similarly, although written material is preferred.

Leonard E. Mudd  
Director, Office of Airport Safety and Standards



Cascade Earth Sciences, Ltd.

L T D

P.O. Box 2737 • La Grande, Oregon 97850 • (503) 963-7758 • FAX (503) 963-2132

January 28, 1993

Ms. Deanna Mueller-Crispin  
Oregon Department of Environmental Quality  
Hazardous and Solid Waste Division  
811 SW Sixth Ave.  
Portland, Oregon 97204

**RECEIVED**

FEB 2 1993

Hazardous & Solid Waste Division  
Department of Environmental Quality

RE: Revision of Solid Waste Rules to Adopt Federal Criteria for Municipal Solid Waste Landfills (December 15, 1992)

Dear Ms. Mueller-Crispin:

I have reviewed the above referenced revisions. My comments on DEQ Attachments D and A, respectively are discussed herein.

**DEQ ATTACHMENT D - COMMENTS**

Attachment D included DEQs fiscal and economic impact statement associated with the proposed rules. My comments correspond to DEQ's categories shown.

1) "The Federal Subtitle D regulations..."

It is very important that DEQ use both site specific environmental and economic criteria when reviewing landfill plans. In other words, if a proposed landfill is not likely to cause surface water or ground water quality impacts above permitted levels (notwithstanding provisions of OAR 340-40-030) and has a satisfactory financial plan, closure plan, etc., then the agency should not require disposal at a "regional" landfill. In DEQ's text the statement that "if there is no reasonable alternative for regulation" appears to include the availability of a regional facility in site approval criteria.

Another statement in this section that requires clarification is "financial assurance for site closure, post-closure care, and corrective action at the time application is made...." As written, this implies a reserve fund, bond, letter of credit or other source of equity would have to be available up-front. This will place a severe financial burden on most communities. If on the other hand the intent is to have a plan which includes an amortized closure and post-closure account (surcharge is collected for each ton of solid waste disposed) then this approach would be acceptable.

Page 1 of 3

- 2) "The requirement for secondary leachate collection system..."

I feel this is an unnecessary requirement for the majority of landfills. Further, I am concerned that this alternative approach is likely to be applied too frequently and under inappropriate conditions during rule implementation. DEQ has the authority to regulate land management practices which may impact groundwater under OAR 340-40-030. This should include engineering measures to minimize the risk of groundwater quality impacts without the specific requirement for secondary leachate collection.

- 3) "Prohibition against siting landfills in certain sensitive hydrogeologic areas..."

My comments are included under "Location Restrictions" below.

- 4) No comments.

- 5) "Fees".

(c) A minimum volume (cubic yards) should be established under the \$500 fee. At the public hearing, 50 cubic yards was suggested and appears reasonable.

## DEQ ATTACHMENT A - COMMENTS

Attachment A included DEQ's proposed rule (OAR 340, Divisions 93 through 97).

### Definitions OAR 340-93-030

- (3) "Agronomic Application Rate..."

The definition presented is vague and places an unwanted constraint on improving "soil tilth".

**Recommendation:** Change to "Agronomic Rate" means a rate of wastewater, sludges, solid waste or other residuals, application which maintains or improves soil productivity and provides for beneficial use.

- (27) "Disposal Site..."

The term disposal site is inappropriate for sites where wastes are managed. It provides an immediate negative impetus from the public.

**Recommendation:** Change to "Waste Management Site".

- (43) "Land Application Unit..."

Disposal is used once again to describe a controlled and beneficial process.

Recommendation: Change to "Land Application Unit" means a site where recovered materials are used beneficially to maintain or improve soil productivity or provide treatment to prevent unpermitted groundwater or surface water quality impacts.

(44) "Land Disposal Site..."

Land application is once again referred to as disposal.

Recommendation: Eliminate "or land application" from the definition.

Letter Authorizations OAR 340-93-060

Disposal is used to refer to beneficial use sites and disposal sites.

Recommendation: Change to "Waste Management Site".

Location Restrictions OAR 340-94-030

(4) "Sensitive Hydrogeological Environment..."

This rule as written appears to prohibit use of an aggregate removal site for a landfill even where an appropriate liner and leachate collection system (if needed) is provided. Restoring an aggregate removal site to some form of beneficial use by proper landfilling should be allowed if potential groundwater quality impacts or public health hazards are not likely to occur.

Recommendation: Reword so that restrictions allow site specific determinations of landfill suitability including analysis of existing and future beneficial use of groundwater, as stated in OAR 340-40-030.

I support DEQ receiving authority from U.S.EPA to administer solid waste rules in the State of Oregon. Thank you for the opportunity to review DEQ's "Draft" Solid Waste Rules. If you wish to discuss any of my comments further, please contact me.

Sincerely,

CASCADE EARTH SCIENCES, LTD.



Bart Barlow  
Principal Scientist

BB:pah  
cc: Ed Liggett, DEQ, Pendleton

**Environmental Quality Commission**

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item E  
March 5, 1993 Meeting

**Title:**

Report on Oregon's Cross Media Risk Assessment Project

**Summary:**

This report summarizes the Department's Cross Media Risk Assessment Project, which has been funded through an EPA grant, and presents the results, findings and recommendations of the Project.

Over the past 15 months the Cross Media Project staff and advisory committee members revised formal rule making procedures to ensure that cross media impacts would be evaluated, reworked permitting procedures to help the applicant and DEQ staff analyze facility impacts in all environmental areas of concern and facilitated dialogue among the Department's programs in addressing the cross media approach.

In addition a Cross Media Comparative Risk computer model was developed which ranks chemical exposure and its associated hazard to human and ecological risks. Field tests are currently in progress to evaluate this tool's ability to provide relative risk information in decision making.

It is anticipated that the methodology developed by this project will continue to be applied in DEQ programs and will serve as a starting point for other states who are interested in a cross media approach to their environmental protection.

**Department Recommendation:**

The Department recommends that the Commission accept this report, discuss the matter and provide guidance to the Department as appropriate.

Marianne E. Fitzgerald  
Report Author

Tom Bispham  
Division  
Administrator

Jul Hansen  
Director


February 11, 1993



State of Oregon  
Department of Environmental Quality

Memorandum<sup>†</sup>

Date: February 16, 1993

To: Environmental Quality Commission  
From: Fred Hansen, Director   
Subject: Agenda Item E, March 5, 1993, EQC Meeting

Report on Oregon's Cross-Media Risk Assessment Project

Statement of Purpose

The Oregon Department of Environmental Quality was awarded a grant from the U.S. Environmental Protection Agency to develop a methodology for incorporating cross-media risk assessment considerations into agency programs which traditionally have been focused on single-media concerns in air pollution, water pollution, or waste management. The project was designed to develop procedures to ensure cross-media coordination within DEQ, develop a methodology for evaluating cross-media impacts, and develop a more integrated approach to problem-solving that enhances our goal of pollution prevention.

The first goal in DEQ's Strategic Plan, adopted in 1990, states that the agency will "address environmental issues on the basis of a comprehensive cross-media (air, water land) approach." It states, "This goal will require the Agency to revise and update procedures for permit application and evaluation, permit issuance, review of engineering plans, and review of technical proposals to assure that the requirements in one environmental medium (air, water, land) complement the efforts in other media and do not create new problems. It also calls for special efforts to assure that agency actions and standards protect health and the environment, are based on uniform acceptable risk factors, appropriately consider cumulative effects of pollutant exposure through various pathways, and provide an adequate margin of safety. To support this goal, it will be necessary to establish a data management system in which ambient environmental data, source emission data, and compliance information from each program are accessible and useful to other programs."

The Cross-Media Risk Assessment Project was successful in identifying and developing several methods for DEQ staff to achieve this goal. This report summarizes the project results, findings, and recommendations. Specific applications will be discussed during the Work Session.

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<sup>†</sup>A large print copy of this report is available upon request.

### **Background**

The history of environmental regulatory programs in Oregon and the nation centers around the laws which were enacted to solve specific environmental programs. The Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, and the Superfund laws were written to address problems in air pollution, water pollution, toxic waste management, and cleanup of contaminated properties. The federal EPA and the Oregon DEQ established budgets and organizational structures to correspond with the legislative mandates, resulting in each mandate being administered by separate programs within the regulatory agencies. This segmentation of regulatory authority, while successful in meeting the mandates, has sometimes had the effect of regulating discharges to one medium without regard to their effect on others. The traditional "command and control" approach to controlling pollutant discharges to a single medium may not adequately evaluate cross-media impacts, and may not adequately allow for consideration of pollution prevention alternatives. This single-medium approach impedes our effectiveness in dealing with facilities with multi-media concerns, and in fostering a proactive preventative approach to environmental management.

The Cross-Media Risk Assessment Project was designed to develop procedures to ensure cross-media coordination within DEQ, develop a methodology for evaluating cross-media impacts, and develop a more integrated approach to problem-solving that enhances our goal of pollution prevention. This integrated approach could be applied in several different ways:

- During permit application review, to evaluate long-term fate and transport of toxic chemicals discharged to the environment, evaluate alternatives for control or treatment of pollutants, and determine the most environmentally sound approaches for pollution prevention and waste management and disposal. For example, a particular air pollution control technology may result in increased discharge to the surface water. The relative risks would be evaluated to determine if a net environmental benefit would be demonstrated.
  
- During the rulemaking process, to consider broad cross-media issues through a comparative risk approach. One example would be to compare the tradeoffs between air pollution caused by field burning and water pollution caused by increased fertilizer use on the fields. Another example would be to compare the relative risk associated with heat treatment of petroleum contaminated soil with open aeration of the soil.

- Within enforcement programs, to prioritize compliance and enforcement resources, so that sites or pollutants representing the greatest cross-program environmental risk are given highest priority.

In order to accomplish the project goals, project staff needed to develop an internal communication process as well as the tools for considering cross-media, human health and ecological impacts when evaluating alternatives. We did this by researching similar work done by EPA and other states, and by setting up the advisory committees described below.

#### **Authority of the Commission with Respect to the Issue**

The Commission has discussed the concepts of risk, risk assessment, risk analysis and risk management in several previous rule adoptions and work sessions. The Cross-Media Risk Assessment Project has selected a comparative risk approach to evaluating cross-media impacts. This approach, which differs from the traditional risk assessment process, has been increasingly used to evaluate alternatives and set priorities. A comparative risk assessment can be used as an analytical tool in the decisionmaking process, where relative risk is considered along with other factors such as technical and economic feasibility, long term liability, and social and political considerations. In this process, the decisionmaker would assimilate information about a problem, consider the basis for risk and the limitations of the model, make judgements about what is most important, and set priorities for action. The Commission may be expected to use the comparative risk process as a decisionmaking tool, to set priorities based on risk, or to choose among alternatives based on risk reduction potential.

#### **Summary of Public Input Opportunity**

Two committees were established to provide input on all aspects of the Cross-Media Risk Assessment Project. An internal steering committee consisting of 15 representatives from the Department's Air Quality Division, Water Quality Division, Hazardous and Solid Waste Division, Environmental Cleanup Division, Regional Operations Division and Laboratory Division met more than twelve times over the course of the year to make recommendations on both the framework for improved cross-media coordination and the methodology to perform cross-media comparative risk assessments. A Cross-Media Advisory Committee consisting of 12 representatives from the regulated community, environmental interests, and experts in risk assessment techniques met five times to review and comment on the development of the methodology and discuss the use of risk

analysis in decisionmaking at DEQ. Two subcommittees (a Toxicology Subcommittee and a Forms Subcommittee) also met several times on specific technical aspects of the project. The participation of all of these members, as well as others who attended committee meetings, was critical to the success of the project. A list of Advisory Committee and Steering Committee members is attached.

### **Project Results and Findings**

Over the course of the last 15 months, the Cross-Media Project staff and committee members recommended procedures for identifying and discussing cross-media concerns in rulemaking and permit program activities, and developed a methodology for analyzing cross-media impacts and comparing relative risks associated with alternative strategies. We are currently in the midst of a pilot phase to test the appropriateness of the forms and procedures which were adopted, and to test the utility of the Cross-Media Comparative Risk model in different applications.

Some specific findings and recommendations are summarized below:

- Formal rulemaking procedures were revised to incorporate language which prompts staff to investigate and evaluate potential cross-media impacts associated with a proposed rule or alternative.
- Permit program procedures were revised to incorporate a supplemental form which would be included with permit applications for new and modified facilities. The forms (one for new and one for modified facilities) are intended to benefit all parties concerned by considering overall environmental impacts early in the permit process and avoiding unnecessary delays during permit review and facility construction. The forms help both the applicant and DEQ analyze potential impacts of the proposed facility on all environmental areas of concern, and should facilitate dialogue among DEQ programs. Specific procedures rely on electronic communication and cross-media workgroups to identify and discuss issues. The main concern was the amount of additional time it would take to fill out the form, process the information, and coordinate with other programs who may have different priorities. The procedures will be re-evaluated after a pilot phase.
- A process for establishing cross-media workgroups was established to facilitate an integrated approach to rule development or permit review. Some of the specific recommendations address how to notify other programs, who should participate, what issues should be considered and how to document results.

- A Cross-Media Comparative Risk computer model was developed which evaluates cross-media impacts and ranks the relative risks to human health and the environment associated with pollutant discharges. This model is designed to be used as a screening tool in place of the more data-intensive traditional risk assessments. The model qualitatively determines the impact of exposure to a chemical and the hazard of this exposure through calculation of a human risk index (HRI) and an ecological risk index (ERI). The model then ranks these indices from low to high. The model also links to the Geographic Information System (GIS) software, one of EPA's most effective tools for integrating and geographically analyzing environmental data and displaying the output on maps.
- A number of basic assumptions have been made in the development of the model which are essential to understanding the utility as well as the limitations of the model. One of the most important considerations is that the Cross-Media Comparative Risk Model is merely a tool to provide one piece of information on which to base a decision (that is, relative risk), but many other factors (such as technical and economic feasibility and long-term liability) are equally important to the decisionmaking process.
- The DEQ is conducting field tests to test the application of the model in several areas: choosing between pollution prevention alternatives (such as chemical substitutes or alternative technologies); comparing alternative treatment technologies for petroleum contaminated soils; targeting inspections for several facilities within a region based on multi-media discharges; and choosing priority pollutants of concern at a facility with multi-media discharges. The field test results will be used to calibrate the model and evaluate its usefulness as a tool in the different applications.
- One major limiting factor in applying the model is the public availability of chemical-specific discharge or emission data. DEQ's current single-medium databases do not contain sufficient chemical-specific data or locational data to conduct the cross-media evaluation. EPA's Toxics Release Inventory (TRI) database provides the most comprehensive, multi-media database available at this time. Although the model is designed to input data from any source, we had to rely extensively on TRI data for field testing the model. An integrated database such as the one described in the Strategic Plan (and on page 1 of this report) is needed to generate a more holistic view of a facility.
- Another limiting factor in field testing the model was a concern about the public perception of risk and how the model results would be interpreted. The industry

representatives on the advisory committee were reluctant to participate in the field tests without the ability to evaluate the results in confidence, prior to release to the public. The Attorney General's office advised that this is not possible unless the data meets the tests for confidentiality under Oregon's Public Records Law. The industry representatives are interested in testing the model independently from DEQ when a PC version of the model is available for distribution to the public. The advisory committee acknowledged the seriousness of this concern and recommended additional risk management and risk communication training for those using the model.

A major key to the success of the project is the institutionalization of the cross-media approach within DEQ programs. Project staff presented this project at the DEQ Quarterly Managers Conference on November 17, 1992 in which these findings and recommendations were reviewed and discussed. Project staff also worked with EPA Region 10 to develop a workshop on "Pollution Prevention in the Permit Process" on January 28, 1993 in which over 40 DEQ staff members participated. The cross-media project was presented during this workshop, and participants identified the need for improved cross-media communication among DEQ programs and among other programs (such as local pretreatment programs) as one of the most important means to achieve our goals of pollution prevention. The steering committee recommended that as we gain more experience in using the cross-media approach to problem-solving during the current field testing efforts for both the model and the permit forms, these tools will be re-evaluated and, if useful, assimilated into program implementation.

### **Conclusions**

The Oregon Cross-Media Risk Assessment Project is a first attempt to address the cross-media transfer of pollutants and qualitatively evaluate impacts to human health and the environment. The project has led to increased awareness among DEQ staff for the need to improve communication between staff, the regulated community and the public. The model provides us with a simple screening tool for comparing risks associated with different pollutant discharges and has broad applications both to DEQ and to the regulated community. As a new model, the process of validating and refining the model, as well as developing further applications, will extend beyond the formal completion of the project grant. There are a number of areas which can be refined and improved as new information becomes available. The report to EPA represents a milestone to satisfy a condition of the EPA grant; it is our hope that the methodology developed as part of this project will continue to be applied and tested within DEQ programs, and will serve as a starting point for other states who are interested in addressing similar concerns in their approach to environmental protection.

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**Department Recommendation**

It is recommended that the Commission accept this report, discuss the matter, and provide advice and guidance to the Department as appropriate. The "Oregon Cross-Media Risk Assessment Project: Final Report to EPA" will be submitted to EPA by March 31, 1993 as required by the grant.

**Attachments**

List of Cross-Media Advisory Committee and Cross-Media Steering Committee Members

**Reference Documents (available upon request)**

Oregon's Cross-Media Risk Assessment Project: Draft Final Report to EPA

Approved:

Section: \_\_\_\_\_

Division: *Son Desham*

Report Prepared By: Marianne Fitzgerald

Phone: 229-5946

Date Prepared: February 16, 1993

/mef  
eqcstaff  
2/16/93

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY  
CROSS-MEDIA ADVISORY COMMITTEE

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Patrick Hanrahan, Technical Services Section

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Richard Nichols, Municipal Project Section  
Greg McMurray, Standards & Assessments Section  
Douglas Terra, GIS Specialist

**Hazardous and Solid Waste Division:**

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Audrey Eldridge, Solid Waste Permits and Compliance Section  
Ali Nikukar, Hazardous Waste Permits and Compliance Section

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Regina Bridwell, Environmental Toxicologist  
William Dana, Site Response Section

**Regional Operations Division:**

Thomas Bispham, Administrator  
Marianne Fitzgerald, Cross-Media Project Coordinator

**Management Services Division:**

Howard Knytych, Information Systems Section

**Note:** Past members include Alan Hose, Laboratory Division; Rommel Rivera and Thomas Foster, Environmental Cleanup Division; Michael Renz, Hazardous and Solid Waste Division; and Jerry Turnbaugh and Eugene Foster, Water Quality Division.

February 16, 1993

# Environmental Quality Commission

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item F  
March 5, 1993 Meeting

**Title:**

1. Permit Modification Decision Regarding Hazardous Waste Storage
2. Proposed Modification Issue Regarding a Landfill Expansion for the Chemical Waste Management of the Northwest, Inc., Arlington Facility

**Summary:**

By rule, all class three permit modification requests must come before the Commission. This item includes one modification request and one request for temporary authorization to begin construction.

1. Chemical Waste Management (CWM) has requested a class three permit modification to allow storage of hazardous waste in a storage building (S-2A) currently permitted to store PCBs. CWM is also requesting that they be allowed to double-stack containers, typically 55 gallon drums, in three buildings (S-2A, S-2B, and S-2D).

The three buildings are totally enclosed and meet the regulatory requirements for hazardous waste storage, including double-stacking.

2. CWM has requested another permit modification to double the capacity of the currently permitted landfill L-12. This modification request is not ready for Commission final decision. However, in order to finish construction by winter, CWM will request temporary authorization to begin construction by early April.


DEQ is soliciting comment from the Commission regarding the temporary authorization.

**Department Recommendation:**

1. DEQ recommends Commission approval to allow hazardous waste storage in building S-2A and for double-stacking of containers in buildings S-2A, S-2B, and S-2D.
2. DEQ recommends granting CWM temporary authorization to begin construction to expand landfill L-12.

  
Report Author

  
Division Administrator

  
Director

February 12, 1993

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

State of Oregon  
Department of Environmental Quality

Memorandum<sup>†</sup>

Date: February 19, 1993

To: Environmental Quality Commission  
From: Fred Hansen, Director  
Subject: Agenda Item F, March 5, 1993 EQC Meeting

1. Permit Modification Decision Regarding Hazardous Waste Storage, and,  
2. Proposed Modification Issue Regarding a Landfill Expansion for the  
Chemical Waste Management of the Northwest, Inc. Arlington Facility

**Statement of the Issue**

The Commission is identified by Oregon Administrative Rules as the decision-making authority for class three modifications<sup>††</sup> for hazardous waste disposal site permits.

Chemical Waste Management of the Northwest, Inc. [CWM] has requested a class three modification to allow hazardous waste storage in a building that currently stores polychlorinated biphenyl [PCB] wastes and to allow double stacking of containers in three hazardous waste buildings. DEQ staff recommend Commission approval of the modification.

CWM has also proposed to expand and double the capacity of a landfill that has already been permitted, but not yet constructed. CWM claims this expansion is necessary to meet the current and projected demand for landfill capacity for Northwest states' waste disposal needs. Because of some ground water issues to be resolved, this modification request is not ready for final consideration at the March 5, 1993 Commission meeting. However, CWM would like temporary authorization from the DEQ to begin construction of the expansion, which is allowed by Oregon Administrative Rules. The Commission will be asked to give a final determination in a future meeting.

Preliminary review indicates that a temporary authorization for the expansion is appropriate, and DEQ will likely be recommending Commission approval of this class three modification at either the April or June meeting. Both DEQ and CWM want to be sure, however, that any Commission concerns are addressed before the DEQ grants the

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<sup>†</sup>A large print copy of this report is available upon request.

<sup>††</sup>Class three modifications are major, class two modifications are semi-major, and class one modifications are minor.

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temporary authorization, which is why the matter is before the Commission today. CWM is concerned about completing construction before next winter if they cannot begin by early April.

CWM's alternative to the temporary authorization and class three modification is to finish constructing the landfill as currently permitted and submit plans for a new landfill unit later. The Department believes this would be inefficient and costly for both the company and the state.

### **Background**

#### **Storage Unit and Double-Stacking Modification Decision**

Chemical Waste Management submitted a class three modification<sup>†††</sup> on November 6, 1990 for storage of hazardous waste in existing PCB building S-2A and included the provision of double-stacking containers in both S-2A and S-2B buildings. On November 12, 1991, CWM requested a class two modification to allow another existing PCB building, S-2D, to store hazardous waste. Proposed double-stacking of containers for S-2D is based on a December 4, 1992 submittal from CWM.

Pursuant to class three modification procedures, DEQ and EPA jointly issued a draft permit modification for public comment on January 11, 1993. The draft permit modification allows storage of hazardous waste at unit S-2A and double-stacking of containers at S-2A, S-2B, and S-2D. Storage buildings S-2B and S-2D are already permitted to store hazardous waste. No written comments have been submitted on the modification proposal or was a public hearing requested. Earlier, CWM held a public meeting with no attendance from the public.

#### **Landfill L-12 Expansion Pending Permit Modification**

On October 1, 1992, CWM proposed a class three modification to expand the currently-permitted capacity of planned landfill L-12 based on their assertion that it would be more cost effective to build one large landfill rather than two small ones. Without a detailed analysis to prove otherwise, DEQ accepts this as a reasonable assertion because of the

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<sup>†††</sup>According to regulations, permitting a container storage unit that results in an increase in container capacity of more than 25% is a class three modification (e.g., S-2A & S-2B). An increase of up to 25% is a class two modification (e.g., S-2D).

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obvious economy of constructing an expansion while crews and equipment are already building the permitted landfill. In addition, building on adjacent land with known characterization negates the need to conduct site investigations elsewhere at the facility.

On October 16, 1992, CWM, DEQ and EPA met to discuss specifics of the permit modification. At this meeting, CWM stated that early April was the latest date to begin excavation of the L-12 expansion. If either EPA or DEQ determined that this start date was unattainable, then CWM requested the earliest possible notice in order to save economic resources and DEQ review efforts. Instead of expanding L-12, CWM would begin compiling a permit modification application for a new landfill at the site.

On October 21, 1992, CWM held a public meeting to discuss the permit modification with any interested member of the Arlington community or general public. No one came or submitted written comments within the 60-day comment period.

Initially, DEQ believed that the class three modification could be brought to the Commission in March. However, ground water issues and review of technical documents has delayed the request so that a temporary authorization is needed for CWM to begin construction April 1.

The Department is bringing the L-12 expansion to the Commission in order to seek any comments or concerns on the temporary authorization.

Pursuant to the class three modification regulations, DEQ and EPA will be issuing a draft permit for public comment. After receipt of comments, DEQ will prepare a final permit decision for Commission approval.

A future rulemaking process is planned for this year which is intended to delegate appropriate class three modifications to the Department.

**Authority to Address the Issue**

ORS 466.140 (2) and OAR 340-105-041 (2)

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## **Alternatives and Evaluation**

### **Storage Unit and Double-Stacking Modification Decision**

DEQ has reviewed the permit application and has determined that the storage of hazardous waste at building S-2A and double-stacking at S-2A, S-2B, and S-2D meet the Title 40 Code of Federal Regulations Part 264 Subpart I rules that are adopted by reference in OAR 340-100-002. DEQ recommends approval of the modification request because operation of S-2A and the allowance of double-stacking would encourage more storage in totally-enclosed structures and would provide enhanced separation of incompatible waste.

The only alternative that can be considered is permit modification denial. Such a denial would mean either the operation at the site would continue as is, or require that a more state-of-the-art unit be considered. However, the proposed use of S-2A and double-stacking meet regulatory requirements and a permit denial would not be justified and hard to administratively defend.

### **Landfill L-12 Expansion Pending Permit Modification**

DEQ proposes to grant temporary authorization and expects to recommend Commission approval of the design and construction of the landfill L-12 expansion. This is expected because the expansion will be built in accordance with currently approved designs, is sited in an area where the characteristics are known, and such expansion provides capacity for waste from the Northwest Compact States, and is not intended to solicit waste from out-of-compact states. Conversely, DEQ presumes that denying the L-12 expansion and requiring another landfill to be sited elsewhere at the facility would not enhance protection of the environment, and would be inefficient and costly for the Department and the state.

### **Summary of Any Prior Public Input Opportunity**

For the storage decision, there have been opportunities for written comments and for attendance at public forums. No comments have been submitted or interest shown.

For the landfill L-12 decision, no written comments have been received. One nearby resident, Les Ruark, phoned DEQ for more information but did not then, or since, voice any opposition to the expansion. A draft permit will go out for public comment on the proposed expansion.

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**Recommendation for Commission Action**

DEQ recommends that the Commission approve the use of storage building S-2A and double-stacking of containers at S-2A, S-2B, and S-2D. Such approval will be in a letter from the Department that will refer to verbal approval from the Commission and to the minutes of the March 5 meeting.

DEQ proposes to grant temporary authorization for CWM to begin construction of the landfill L-12 expansion, subject to any comments or concerns expressed by the Commission today.

**Attachments**

- A. Schematic Showing Landfill L-12 Expansion

**Reference Documents (available upon request)**

- 1. RCRA Fact Sheet for S-2A and Double-Stacking Permit Modification
- 2. Landfill L-12 Permit Modification Proposal Submitted by CWM

Approved:

Section:

David A. Louis

Division:

Stephanie Hallock

Report Prepared By: Fredrick Moore

Phone: 229-6991

Date Prepared: February 12, 1993

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February 12, 1993



Memo To: Environmental Quality Commission  
Agenda Item F  
March 5, 1993 Meeting  
Page 6

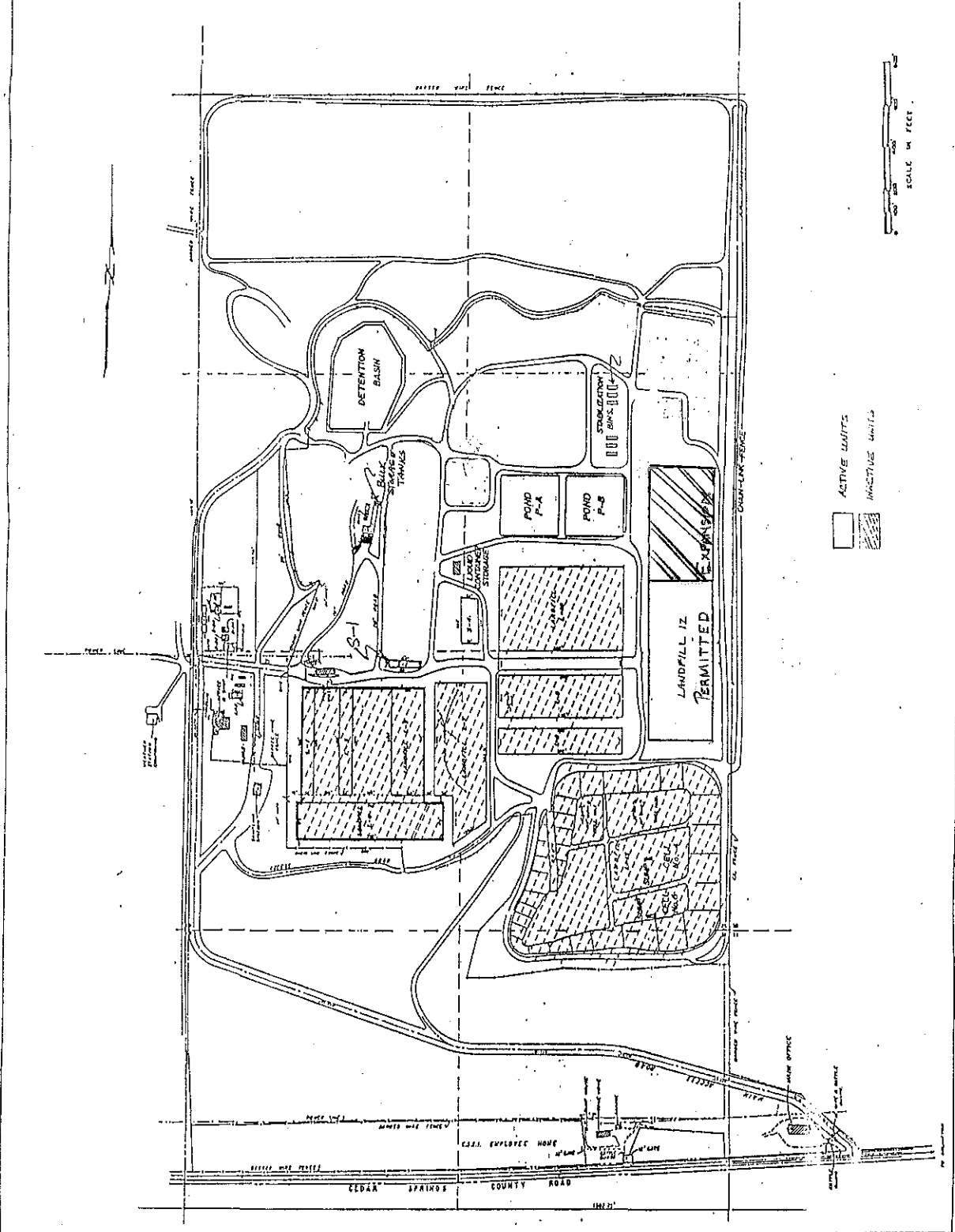
ATTACHMENT A

NO.	DATE	DESCRIPTION	BY
1	10-15-88	GENERAL UPDATE	...
2	10-15-88	ADD CLAY TEST SITE, LIQUID	...
3	10-15-88	CONDUIT STORAGE, GALLONS	...
4	10-15-88	P.A. & P.S. MISC. ROADS	...
5	10-15-88	REMOVE POOL 1, 2, 3, 4, 5	...
6	10-15-88	REMOVE POOL 6, 7, 8, 9	...
7	10-15-88	REMOVE POOL 10, 11, 12	...
8	10-15-88	REMOVE 800 FARM AREA	...
9	10-15-88	ADD DETENTION BASIN	...
10	10-15-88	REMOVE PAD, STARWELL	...
11	10-15-88	AND CUL. TEST	...
12	10-15-88	PERIMETER FENCES & MISC. ROADS	...
13	10-15-88	APP'D	...

**FUTURE SITE PLAN**

FOR  
**CHEM-SECURITY SYSTEMS INC.**  
 IN SECTIONS 23 & 24, T34N, R20E, W4E,  
 DILLON COUNTY, DRECON.

TRANSMON ENGINEERING CO., INC.  
 1001 ...  
 ...



# Environmental Quality Commission

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item G  
March 5, 1993 Meeting

**Title:**

Request by the City of Canby for an Increase in Permitted Mass Load Limitations Pursuant to OAR 340-41-026.

**Summary:**

The City of Canby is in the process of expanding its waste water treatment facility to accommodate current and future population growth. The necessary facility expansion would result in increased effluent discharges to the Willamette River. The requested increase requires that the City receive an exception to OAR 340-41-026 (2) from the Environmental Quality Commission which would allow an increase in permitted mass load limitations.

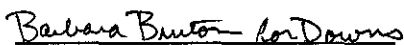
The Commission is allowed to grant load increases in accordance with conditions set forth in OAR 340-41-026 (3) which essentially require a determination that the requested increase will not violate water standards or impair beneficial uses. An increase may not be allowed if the subject water body is water quality limited for the parameters of concern. In this case, the Willamette River is not water quality limited for the parameters of concern. The Department has conducted an evaluation of the City's request and subjected the proposed discharges to complex computer modelling. The results of this evaluation found the discharges to have no measurable impacts on the receiving stream.

**Department Recommendation:**

The Department believes the request meets the criteria adopted by the Commission for granting a permitted mass load increase and therefore recommends approval of the request.



Report Author



Division Administrator



Director

January 6, 1993

\*A large print copy of this report is available upon request.

State of Oregon  
Department of Environmental Quality

Memorandum<sup>†</sup>

Date: February 16, 1993

To: Environmental Quality Commission  
From: Fred Hansen, Director *Fred Hansen*  
Subject: Agenda Item G, March 5, 1993 EQC Meeting

Request by the City of Canby For an Increase in Permitted Mass Load  
Limitations Pursuant to OAR 340-41-026.

**Statement of the Issue**

Request for an increase of permitted mass load limitations for the City of Canby. This request is for an exception to OAR 340-41-026 (2) (an EQC Policy Requiring Growth and Development be Accommodated with Existing Permitted Loads Unless Otherwise Approved by the Commission). If approved, the increase will be incorporated into a new National Pollutant Discharge Elimination System (NPDES) Waste Discharge Permit.

**Background**

The City of Canby (City) treatment facility discharges domestic wastewater receiving secondary treatment to river mile 33.0 on the Willamette River. The treatment facility is currently operating under an NPDES permit. The City's facility is presently permitted for an average dry weather flow of 0.85 million gallons per day (MGD) and serves a user population of 9,400.

The City's engineers are completing plans and specifications for a facility upgrade. The City proposes to expand the capacity of the facilities to accommodate a dry weather design flow of 2.0 MGD to serve a user population of up to 20,000. The City has passed a bond measure which will raise funds to finance Stage I improvements. Stage I of the expansion is scheduled for completion by June, 1994.

The Department of Environmental Quality (Department) is in the process of renewing the City's NPDES permit. OAR 340-41-455 requires that any new or modified wastewater

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<sup>†</sup>A large print copy of this report is available upon request.

treatment facilities meet minimum design criteria. The design criteria are based on effluent concentration for Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspend Solids (TSS).

With the expansion of the wastewater treatment facility, the minimum design criteria require that the monthly average effluent concentration limits be reduced from 20 to 10 mg/l BOD<sub>5</sub> and TSS during low stream flows. The low flow period for the Willamette River is May 1 through October 31. BOD and TSS concentration limits for the months of November through April will remain at 30 mg/l.

In addition to concentration limits, the City's NPDES permit will include mass load limits. For expanding facilities, mass load limits are calculated based on the proposed treatment facility capabilities and the highest and best practicable treatment to minimize the discharge of pollutants. The proposed limits for the upgraded facilities are worst case and are in the process of being refined by the Department. The mass load limits in the City's new NPDES permit could be lower than those requested at this time.

The City has requested and the Department has approved a permit limit change from BOD<sub>5</sub> to Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>). Approving the CBOD<sub>5</sub> limit for the City's permit is consistent with the attached memorandum outlining the Department's policy on the subject.

The following table lists the current and proposed effluent loads (worst case monthly average). The proposed loads were calculated using the basin concentration standards and the increased effluent design flow for the upgraded facilities:

	<b>CURRENT LOAD (lbs/day)</b>	<b>PROPOSED LOAD (lbs/day)</b>
<u>MAY - OCTOBER</u>		
BOD <sub>5</sub>	142 (APPROX. 106 CBOD <sub>5</sub> )	167 (CBOD <sub>5</sub> )
TSS	142	167
<u>NOVEMBER - APRIL</u>		
BOD <sub>5</sub>	212 (APPROX. 177 CBOD <sub>5</sub> )	417 (CBOD <sub>5</sub> )
TSS	212	500

**Authority to Address the Issue**

Authority to grant an exception to OAR 340-41-026 (2) and approve a mass load increase is codified in OAR 340-41-026 (3). The Rule specifically outlines criteria the City must satisfy before the increase can be granted. The Department believes that the criteria have been met. Attachment I to this report is a memo summarizing the criteria and the Department's findings pursuant to that criteria.

**Alternatives and Evaluation**

The City proposes a two-staged approach to upgrading the municipal wastewater facilities. Stage I improvements will enable the treatment facilities to meet the Willamette River Basin Standards effluent limits of 10 mg/l and 30 mg/l BOD and TSS during the dry and wet weather months, respectively. The initial improvements, outlined below, are limited by funding constraints:

<b>STAGE I IMPROVEMENTS</b>	<b>COST</b>
Headworks	\$250,000.00
Raw Sewage Pumping Station	350,000.00
Primary Clarifier	40,000.00
Aeration Basin	55,000.00
Secondary Clarifier	560,000.00
Disinfection	170,000.00
Solids Handling	690,000.00
Miscellaneous Construction and Contingencies	870,000.00
<b>TOTAL</b>	<b>\$2,985,000.00</b>

To stay within the existing mass load the facility would have to meet CBOD<sub>5</sub> and TSS effluent permit limits of 6.0 mg/l for the dry months and 12.0 mg/l for the wet weather months. To meet those limits the City would be required to implement Stage II with the

Stage I improvements. Outlined below are the Stage II improvements which are now scheduled to be added to the treatment plant in 6 to 10 years:

<b>STAGE II IMPROVEMENTS</b>	<b>COST</b>
Additional Biological Treatment	\$1,800,000.00
Filtration	250,000.00
Miscellaneous Sitework	200,000.00
Construction Engineering	350,000.00
<b>TOTAL</b>	<b>\$2,600,000.00</b>

#### **Summary of Any Prior Public Input Opportunity**

The Department issued a 30 day Public Notice for the renewal of the City's NPDES permit and no comments were received.

#### **Conclusions**

- The Department used a complex water quality model to perform an instream impact analysis of the mass load increase proposed by the City of Canby. The model predicted that the additional mass load will not measurably increase pollutant concentrations in the Willamette River.
- Stage II improvements to the treatment plant would need to begin with Stage I if the City is to stay within current permitted mass loads. This would add about \$2,600,000 to the cost of the Stage I treatment plant improvements. The City has not presently raised the capitol necessary for the Stage II improvements.
- The Department believes the request meets the criteria adopted by the Commission for granting a permitted mass load increase because:
  - a. The affect on Willamette River assimilative capacity due to the increase is not measurable.

Memo To: Environmental Quality Commission  
Agenda Item G  
March 5, 1993 Meeting  
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- b. The cost of staying within permitted mass loads is excessive considering the projected impact on water quality, and
- c. The Willamette River has not been designated as water quality limited for BOD or TSS.

### **Proposed Findings**

See Attachment I.

### **Recommendation for Commission Action**

The Department recommends the Commission grant the requested permitted mass load increase for the City of Canby as presented for Agenda Item G together with the supporting findings presented in Attachment I.

### **Attachments**

- I. Mass Load Increase Request Memo
- II. Substitution of CBOD<sub>5</sub> for BOD<sub>5</sub> Memo

### **Reference Documents (available upon request)**

- 1. Statutory Authority - ORS Chapter 468
- 2. Applicable Rule(s) - OAR 340-41-026 (1-10)
- 3. Proposed Permit and Permit Review Report

Approved:

Section:

*Clark F. Healy*  
Division: *Barbara Burton for Mike Downs*  
Report Prepared By: Michael R. Wiltsey  
Phone: 229-6385 x249



STATE OF OREGON

ATTACHMENT I

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: December 28, 1992

TO: File

FROM: *MWR* Michael R. Wiltsey

SUBJECT: City of Canby Mass Load Increase Request

On December 18, 1992, the City of Canby requested an increase in permitted mass load limitations. The City requested that the mass load limitations be increased from 142 #/day of BOD<sub>5</sub> and TSS to 167 #/day of CBOD<sub>5</sub> and TSS during the period between May 1 and October 31. For the period between November 1 and April 30 the mass load limitations would increase from 212 #/day BOD<sub>5</sub> and TSS to 417 #/day of CBOD<sub>5</sub> and 500 #/day of TSS.

The Department has evaluated the request and believes it is acceptable. In order to approve a mass load increase, the Department is obligated to review the request in relation to the Department's rules for allowing increased loads (OAR 340-41-026)(3). The Department must make certain findings and consider certain issues before allowing a mass load increase. Below is a listing of the required findings and considerations followed by the Department's conclusions:

**FINDINGS:**

**A. The increased discharged load will not cause water quality standards to be violated.**

**Conclusion:** The Department has modeled the mass load increase using the Environmental Protection Agency supported model QUAL2E. The Department concludes from the results of the analysis that Willamette River water quality standards will not be violated due to the mass load increase requested by the City.

**B. The increased discharged load will not unacceptably threaten or impair any recognized beneficial uses. In making this determination, the Department may rely upon the presumption that if the numeric criteria established to protect specific uses are met the beneficial uses they were designed to protect are protected. In making this determination the Department may also evaluate other state and federal agency data that would provide information on**

**potential impacts to beneficial uses for which the numeric criteria have not been set.**

**Conclusion:** Based upon the evaluation of water quality impacts, the Department does not believe that beneficial uses of the Willamette River will be impaired or threatened.

**C. The new or increased discharged load shall not be granted if the receiving stream is classified as being water quality limited under OAR 340-41-006(30)(a).**

**Conclusion:** The Willamette River has not been determined to be water quality limited for BOD or TSS.

**D. The activity, expansion, or growth necessitating a new or increased discharge load is consistent with the acknowledged local land use plans as evidenced by a statement of land use compatibility from the appropriate local planning agency.**

**Conclusion:** The Department has received a land use compatibility statement for this project.

**CONSIDERATIONS OF ENVIRONMENTAL EFFECTS CRITERIA:**

**Criteria 1: Adverse Out-of-Stream Effects.** There may be instances where the non-discharge or limited discharge alternatives may cause greater adverse environmental effects than the increased discharge alternative.

**Conclusion:** Not applicable to this situation.

**Criteria 2: Instream Effects.** Total stream loading may be reduced through elimination or reduction of other source discharges or through a reduction in seasonal discharge. A source that replaces other sources, accepts additional waste from less efficient treatment units or systems, or reduces discharge loading during periods of low stream flow may be permitted an increased discharge load year-round or during seasons of high flow, as appropriate.

**Conclusion:** The National Pollutant Discharge Elimination System (NPDES) permit proposed by the Department for the City of Canby discharge will include an ammonia limit. The ammonia limit will reduce the nitrogenous biochemical oxygen demand in the treatment plant effluent. This will help mitigate the CBOD<sub>5</sub> mass load increase.

Memo to: File  
December 28, 1992  
Page 3

The City is also planning to install ultra violet disinfection facilities. This will eliminate the potential instream toxic impacts of the use of chlorine for disinfection.

**Criteria 3: Beneficial Effects.** Land application, upland wetlands application, or other non-discharge alternatives for appropriately treated wastewater may replenish groundwater levels and increase streamflow and assimilative capacity during otherwise low streamflow periods.

**Conclusion:** Not applicable to this situation.

**CONSIDERATIONS OF ECONOMIC EFFECTS CRITERIA:**

**Criteria 1: Value of Assimilative Capacity.** The assimilative capacity of Oregon's streams are finite, but the potential uses of this capacity are virtually unlimited. Thus it is important that priority be given to those beneficial uses that promise the greatest return (beneficial use) relative to the unused assimilative capacity that might be utilized. Instream uses that will benefit from reserve assimilative capacity, as well as potential future beneficial use, will be weighed against the economic benefit associated with increased loading.

**Conclusion:** The Department's water quality analysis predicted that the Willamette River assimilative capacity used by the additional mass load is not measurable.

**Criteria 2: Cost of Treatment Technology.** The cost of improved treatment technology, nondischarge, and limited discharge alternatives shall be evaluated.

**Conclusion:** The City is in the process of making improvements to the wastewater treatment facilities. The Stage I improvements will be completed by June 1, 1994, and will cost about \$3,000,000.00. A bond measure was passed to raise the funds for the initial improvements.

The City has also planned for Stage II improvements for the facilities. Stage II is scheduled for implementation in 6 to 10 years at a cost of \$2,600,000.00. For the City to stay within the existing mass load, Stage II would need to be implemented with Stage I. The Department concludes that the Stage II improvements are needed in the future but are not necessary at this time.

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: April 22, 1991

TO: Lydia Taylor  
Water Quality Division Staff  
Regional WQ Permit Writers

FROM: Barbara Burton *Barbara Burton*

SUBJECT: Substitution of CBOD5 for BOD5

Many sewage treatment plants in Oregon are designed to meet effluent limits that are more stringent than federal secondary treatment standards. Some of these treatment plants may produce significant numbers of nitrifying bacteria. These bacteria improve the quality of the effluent by converting ammonia into nitrates, and reduce the ultimate oxygen demand of the effluent on the receiving stream. However, nitrifying bacteria in significant quantities may seriously affect with the BOD5 test, giving relatively high values even though the treatment plant is operating well.

The CBOD5 test, which uses an inhibitor for nitrifying bacteria, is a better test both for evaluating the treatment plant performance and the impact of the effluent on the receiving stream where nitrifying bacteria are present. The Department is proposing to allow alternate CBOD5 limits for those plants producing significant numbers of nitrifying bacteria, as follows:

<u>Existing BOD5 Limit</u>	<u>New CBOD5 Limit</u>
30 mg/l	25 mg/l
20 mg/l	15 mg/l
10 mg/l	10 mg/l

New load limits for CBOD5 will be set, based on the following formula:

$$30 \text{ day average CBOD5} = \text{concentration (mg/l)} \times \text{average design dry weather flow (MGD)} \times 8.34 \text{ \# /gallon}$$

$$7 \text{ day average CBOD5} = 30 \text{ day average CBOD5} \times 1.5$$

$$\text{Daily max CBOD5} = 30 \text{ day average CBOD5} \times 2$$

Memo to: Lydia Taylor  
April 1, 1991  
Page 2

Any municipality wishing a higher CBOD5 limit than shown above may apply for a waste load increase. The Department will evaluate such requests using the criteria established in OAR 340-41-026(2).

#### Future Study Required

The alternate CBOD5 limit of 25 mg/l is set by federal law. However, the other two alternate CBOD5 limits of 15 mg/l and 10 mg/l are estimates at this time. The Department intends to conduct further studies to determine an average BOD5/CBOD5 conversion for sewage treatment plants operating in Oregon. These interim CBOD5 limits may be adjusted up or down, depending on the results of these studies.

#### Required Permit Actions

At the request of a permittee, either by permit modification application or at the time of permit renewal, the above listed CBOD5 alternate limits may be placed in the permit. A "re-opener" clause should accompany the new limits for 15 mg/l and 10 mg/l CBOD5 limits only, in Schedule A, by placing an \* or footnote number by the CBOD limit and adding the following language:


"The CBOD5 concentration limits are considered equivalent to the minimum design criteria for BOD5 specified in OAR 340-41. These limits and the CBOD5 mass load limits may be adjusted by permit action up or down if more accurate information regarding CBOD5/BOD5 equivalency becomes available."

In addition, we will be requiring testing (but no effluent limits) for ammonia, for those facilities wishing to use the CBOD5 limit.

State of Oregon  
**Department of Environmental Quality**

**Memorandum\***

Date: February 9, 1993

To: Environmental Quality Commission  
From: Fred Hansen, Director   
Subject: Agenda Item H, March 5, 1993, EQC Meeting  
Review of the State/EPA Agreement (SEA) for FY94.

**Statement of Purpose**

The annual State/EPA Agreement (SEA) is an agreement between the Department of Environmental Quality (DEQ, Department) and the U.S. Environmental Protection Agency (EPA). This annually updated agreement establishes mutual understanding of program priorities and expected accomplishments for the next fiscal year (July 1, 1993 through June 30, 1994) and becomes the basis for federal funding assistance to DEQ.

The purpose of this report is to:

1. Provide the Environmental Quality Commission (EQC, Commission) with information about the proposed State/EPA Agreement and the FY 1994 priority issues for Oregon.
2. Provide an opportunity for the EQC to comment on the priorities prior to final agreement with the EPA.
3. Provide an opportunity for the public to comment on the priorities before the Commission.

**Authority of the Commission with Respect to the Issue**

Opportunity for public input and EQC review is required by EPA as a prerequisite to approval of program funding grants.

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\*A large print copy of this report is available upon request.

Memo To: Environmental Quality Commission  
Agenda Item H  
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Page 2

### **Summary of Public Input Opportunity**

Public notice of the opportunity to comment on the proposed State/EPA Agreement priorities was published in The Oregonian on February 7, 1993. The "Chance to Comment" notice (see Attachment B) was also mailed to known interested parties and the Regional Councils of Government.

Written comments are to be submitted to the Department by March 31, 1993.

Distribution of the agenda for the EQC meeting also effectively provided notice of opportunity to present oral comments at the March 5, 1993, Commission meeting.

### **Intended Future Actions**

A responsiveness summary will be prepared for any comments received on the SEA and the environmental priorities as a result of EQC discussion and the mailing.

The Department will consider any comments received prior to reaching consensus on issues with the EPA. Written comments are requested by March 31, 1993. It is expected that resolution of any outstanding issues between EPA and the Department will be accomplished by no later than May, 1993, so that the SEA can be finalized by July 1, 1993. Timely completion is necessary to have grant awards for program funding made to the Department prior to the beginning of the fiscal year.

### **Department Recommendation**

It is recommended that the Commission accept this report, discuss the priorities as presented in Attachment A, and provide advice and guidance to the Department as appropriate.

### **Attachments**

- A. FY 1994 Priority Issues
- B. "Chance to Comment" Public Notice

Memo To: Environmental Quality Commission  
Agenda Item H  
February 9, 1993 Meeting  
Page 3

Approved:

Section:

Lydia Taylor

Division:

Lydia Taylor

Report Prepared By: Lydia Taylor

Phone: 229-6725

Date Prepared: Lydia Taylor

Lydia Taylor  
SEA-94  
February 9, 1993



# Environmental Quality Commission

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item H  
March 5, 1993 Meeting

**Title:**

Information Item: State/EPA Agreement Priorities

**Summary:**

Each year, the Department of Environmental Quality and the Environmental Protection Agency enter into an agreement which establishes the mutual understanding of program priorities and expected accomplishments for the next fiscal year (July 1, 1993 through June 30, 1994). This agreement becomes the basis for federal funding assistance to DEQ.

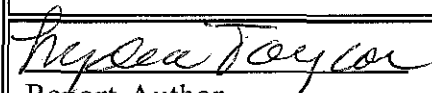
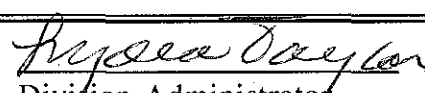
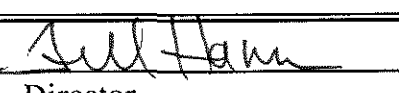
Public Notice has been given of the opportunity to comment on the proposed priorities (contained in Attachment A of the staff report).

Following receipt of comments and review by the Commission on March 5, the Department will prepare a responsiveness summary for any comments received.

The Department will consider any comments received prior to reaching consensus on issues with the EPA and finalizing the agreement.

**Department Recommendation:**

The Department recommends that the Commission accept the report, discuss the priorities as presented in Attachment A, and provide advice and guidance to the Department as appropriate.

		
Report Author	Division Administrator	Director

2/26/93

\*A large print copy of this report is available upon request.

FY 1994 PRIORITY ISSUES  
FOR OREGON

AIR QUALITY PROGRAM

- A. Prepare Title V Industrial emissions program including a permanent fee structure for EPA approval.
- B. Develop draft CO/Ozone maintenance strategy for the Portland area. Implement the Governor's Motor Vehicle Task Force recommendations and legislative programs for motor vehicle emission reductions.
- C. Develop data systems needed for Clean Air Act implementation.
- D. Reduce the backlog of active permit applications.
- E. Implement systematic determination of air quality in all parts of the state based on network prioritization.
- F. Initiate the Small Business Assistance Program.
- G. Implement education and compliance programs for oxygenated fuels.
- H. Develop and adopt an Air Toxics strategy.
- I. Enhance field staff through improved inspector training, guidance and specialization.
- J. Plan and implement I/M program requirements to meet Clean Air Act regulations and/or Motor Vehicle Task recommendations.
- K. Identify and begin work with potential, new nonattainment areas. Begin work on maintenance plans for nonattainment areas.
- L. Begin development and approval of plans to address forest health concerns while still maintaining air quality goals.

## WATER QUALITY PROGRAM

- A. Obtain adequate information to determine the status of water quality in general and to establish the assimilative capacity for specific priority waterbodies.
  - 1. Continue to monitor water quality.
  - 2. Continue to establish TMDLs on priority waterbodies.
  - 3. Continue to assess toxic problems.
  
- B. Utilize the State Water Quality Status Assessment Report (WQSA) and the State Clean Water Strategy (SCWS) to establish priorities for prevention and corrective actions which need to be taken by the Department. The SCWS is a problem prioritization method which ranks streams according to their problem severity and beneficial use value. The WQSA report evaluates agency data collected to indicate water quality problems.
  
- C. Implement aggressive source control and problem prevention programs based on the priorities established that explore and encourage use of environmentally sound alternatives for disposal of treated wastewater which do not adversely affect air, land, stream and groundwater quality.
  - 1. Ensure effective implementation of the State's Nonpoint Source Management Program, including aggressive pursuit and effective utilization of 319 grant funds.
  - 2. Issue water quality based permits where necessary.
  - 3. Continue to address the backlog of unissued minor permit renewals.
  - 4. Ensure that federal facilities remain in compliance with their NPDES permits.
  - 5. Update discharge permits concurrently and consistently with grant/loan process.
  - 6. Continue update guidance document for implementation of the groundwater rules and utilize to incorporate groundwater protection requirements into priority waste water discharge permits.
  - 7. Implement and coordinate the groundwater protection strategy.
  - 8. Ensure adequate groundwater quality protection requirements are met at UIC sites.
  - 9. Develop statewide water quality standards for wetlands.

10. Define SRF loan program guidance and develop a proposal to leverage SRF funds.
11. Implement the SRF loan program with the first four years of Federal Capitalization Grants.
12. Prepare the FY94 Intended Use Plan and Capitalization Grant Application.
13. Continue work towards a state Wellhead Protection Plan.
14. Complete the statewide vulnerability map and issue contracts to refine data to be used in updating and improving map.
15. Develop and implement compliance maintenance strategy for municipal wastewater treatment facilities.
16. Take a role in outreach efforts to small communities.
17. Ensure timely design, construction, and administrative completion of construction grant projects in accordance with state transition strategy to administratively complete and close out all projects by September 30, 1995 and September 30, 1997 respectively.
18. Ensure effective implementation of the State's Clean Lake program, including aggressive pursuit and effective utilization of Clean Lakes grants.
19. Implement the process to nominate and designate Outstanding Resource Waters (ORWs) within the priority areas identified in 340-41-026.
20. Develop and implement a Near Coastal Program, including effective use of Near Coastal Grant funds.

### HAZARDOUS WASTE PROGRAM

#### A. Base Program Priorities

1. Continue to operate a comprehensive, high-quality hazardous waste management and toxics use reduction program.
2. Achieve authorization for all base-RCRA and HSWA provisions through July 1, 1992, including alternate state cleanup authorities.

3. Promote a preferred waste management hierarchy with source reduction as a first preference and land disposal as a last preference.
4. Design and implement a state information management system for the hazardous waste program which meets both state needs and federal reporting needs.
5. Continue to conduct a comprehensive compliance and monitoring program targeted at generators of hazardous waste and hazardous waste management facilities and pursue enforcement against significant violators, in a timely manner.
6. Continue to develop and implement an education/technical assistance program for hazardous waste generators and toxics users with expanded focus on small businesses. Personally visit/contact every registered generator and SARA 313 Reporters during the fiscal year.
7. Participate in state and regional dialogue related to the flow of waste between western states, the need to establish new waste management capacity and developing environmentally sound alternatives to land disposal.
8. Continue to focus on environmental clean-up, closure, corrective action and post-closure permits and unauthorized land disposal facilities, maximizing the use of cleanup authorities as appropriate.
9. Ensure that adequate resources and training are provided to maintain and implement the hazardous waste permitting program.
10. Implement a technical assistance program that assists hazardous waste generators and toxic substance users in preparing reduction plans and identifying and selecting technically sound reductio options for successful implementation.

#### UNDERGROUND STORAGE TANK (UST) PROGRAM

A. Track the State Program Approval Application.

Track the State program approval application through stages at the Federal level. Respond to questions and comments to the published program. Maintain the authorized program.

B. Compliance monitoring and enforcement.

The program will continue to identify, investigate and resolve violations of state regulatory requirements. Particular emphasis will be placed on technical compliance deadlines and service provider/supervisor violations.

C. Certification and Licensing of UST Supervisors and Service Providers and Soil Matrix Cleanup Service Providers and Supervisors.

Continue to prepare and administer examinations and issue service provider licenses and supervisors licenses for installation, tank removal, tightness testing, cathodic protection and soil matrix cleanup. Through the advisory workgroup process review the certification and licensing program. Identify revision and policy needs and make recommendations to the program manager.

D. Outreach efforts to promote compliance.

Promote compliance with State requirements by disseminating regulatory and technical information to local governments and the regulated community through technical bulletins, newsletters and workshops.

E. Staff training.

Continue to provide technical assistance and training for state UST personnel responsible for compliance and enforcement. Training will include site safety practices, including monitoring for volatiles such as benzene.

### SUPERFUND PROGRAM

A. Program Management and Administration

1. Implement the Superfund Memorandum of Agreement (SMOA), which established each agency's roles and responsibilities, and procedures, during federal and state response activities to enhance interagency coordination and effective use of each agency's resources.
2. Renew the Core Program Cooperative Agreement to maximize the federal funds available for the State's environmental cleanup program for eligible tasks such as staff training, federal-state program planning, and conferences.
3. Continue to develop staff capability, management and administrative procedures, and funding sources.
4. Participate in EPA planning processes to promote recognition and inclusion of Oregon sites in the federal cleanup program.
5. Continue to develop cleanup standards and written guidance to expedite cleanups and make more efficient use of resources.

**B. Site Assessment**

Continue to participate in the CERCLA site assessment program by conducting screening, preliminary assessments and site investigations of Oregon CERCLIS sites as provided in multi-site/multi-activity cooperative agreements.

**C. Investigation and Cleanup of NPL Sites**

1. Participate in the remedial investigation/feasibility study (RI/FS) at Teledyne Wah Chang--overall site--through management assistance.
2. Participate in remedial investigations/feasibility studies and the remedy selection processes at Allied Plating and Joseph Forest Products.
3. Continue state lead of RI/FS activities and the remedy selection process at the Union Pacific Railroad site.
4. Participate in design and construction activities at NL/Gould and Teledyne Wah Chang (operable unit #1--sludges) through management assistance.
5. Participate in the resolution of operation and maintenance and cost recovery issues at the United Chrome site.
6. Participate in RI/FS activities and the remedy selection process at Umatilla Army Depot under an interagency agreement.
7. Participate in remedial action and operation and maintenance activities at the Martin Marietta site.

**UNDERGROUND STORAGE TANK CLEANUP PROGRAM**

**A. Training**

The UST Cleanup Program requires general training in several important areas, including cleanup technologies, investigation, enforcement, cost recovery and cleanup policies, from both governmental and private training programs.

**B. Site Cleanup Oversight/Management**

Major DEQ resources will be expended in 1994 on site oversight and management. DEQ is placing a high priority on establishing guidance and standards for soil and groundwater cleanup levels, risk assessment, and related topics. The existing cost recovery procedures will be evaluated and modified where appropriate. UST Cleanup rules will be reviewed and amended, if necessary.

## C. Outreach

Owners and operators will be advised of the latest program guidance and requirements through regular seminars, public meetings and written information.

## BASE PROGRAMS

Though many of the above-mentioned priority issues reflect new or evolving programs, it is important to note that much of the environmental efforts by DEQ and EPA are directed to operation of base activities in air, water, and hazardous waste programs, e.g., regulation development, permits issuance, source inspection, monitoring, etc. These activities are essential to both new and ongoing programs and constitute a significant portion of both agencies priority work. The full FY 1994 SEA will include detailed discussions of outputs and commitments for both new and ongoing programs. Activities, outputs and commitments for the Superfund and UST cleanup programs are not included in the full FY 1994 SEA. Federal assistance agreements for these programs are separately negotiated between EPA and DEQ.

## POLICY

The DEQ and EPA agree that the foregoing statements reflect the priority issues and general policies that will govern development of the FY 1994 Oregon SEA. EPA guidance to Oregon, while based on headquarters guidance, will to the fullest extent possible reflect the spirit and intent of this document. Likewise, this document will serve as a general framework for the negotiations that will occur during Mid-year Reviews.

There is a recognized need for on-going discussions about state funding for environmental programs as a result of Ballot Measure 5 implementation.


It is understood that these and other additional discussions may result in editing of the "Environmental priorities" prior to their inclusion in the SEA.



State of Oregon  
Department of Environmental Quality

Memorandum

Date: February 22, 1993

To: Environmental Quality Commission  
From: Monika Johnson   
Subject: March 5, 1993 EQC Meeting

Enclosed in this packet you'll find the following items for the March 5, 1993 EQC meeting.

- An Agenda
- Agenda Item B - Approval of Tax Credits
- Agenda Item D - Rule Adoption: Revised Solid Waste Rules to Incorporate Federal Criteria for Municipal Solid Waste Landfills (Subtitle D)
- Agenda Item E - Report on Cross-Media Risk Assessment Project
- Agenda Item F - Modification of Chemical Waste Management Arlington Facility
- Agenda Item G - Request by the City of Canby for an Increase in Permitted Mass Load Limitations Pursuant to OAR 340-41-026

Other material will follow at a later date.

## **SUMMARY, 40 CFR PART 258 ("SUBTITLE D" REGULATIONS)**

### **Action**

40 CFR Part 258 published on October 9, 1991, establishes requirements for municipal solid waste landfills. It covers location restrictions, facility design and operations, groundwater monitoring, corrective action measures, and conditions for closing (including financial responsibility).

The regulations apply to all landfills that receive municipal solid waste after October 9, 1993. If a landfill stops taking waste before October 9, 1991, the requirements do not apply. If it stops taking waste after October 9, 1991, but before October 9, 1993, the facility has to comply with only the rule's final cover requirements.

Groundwater monitoring and corrective action requirements are phased in, allowing up to five years for compliance. Landfill owners/operators must have financial mechanisms covering closing costs and cleanups by April 9, 1994.

Management standards for municipal landfills cover six categories.

### **Location Restrictions**

Municipal landfills cannot be located close to airports. Siting in ecologically valuable wetlands or areas subject to natural disasters (floodplains, fault areas, seismic zones, and unstable terrain) is restricted.

### **Operating Requirements**

Landfills must: (1) keep out regulated hazardous waste; (2) apply a daily cover, (3) control disease vector populations (rodents, flies, mosquitoes, etc.); (4) monitor methane gas; (5) restrict public access; (6) control storm water run-off; (7) protect surface water from pollutants; and (8) keep appropriate records.

### **Design Standards**

In states with EPA-approved permitting programs, landfills must be designed to ensure drinking water standards are not exceeded in groundwater. In states without EPA-approved programs, landfills must be designed with a composite liner made of synthetic material covering a two-foot clay liner.

### **Groundwater Monitoring and Corrective Action**

All landfills must have monitoring wells to detect any groundwater contamination. If groundwater is contaminated, the owner/operator is required to clean it up to acceptable standards to protect human health and the environment.

**Closure and Post-Closure Care**

When a landfill stops accepting waste, it must be covered to keep any liquid away from the buried waste. Once the landfill is closed, the owner/operator is responsible for maintaining the final cover, monitoring groundwater and methane gas, and continuing leachate management for 30 years.

**Financial Assurance**

Landfill owners/operators must show that they have financial mechanisms to cover the costs of closure, post-closure care, and any needed cleanups from releases. Financial mechanisms can include surety bonds, letters of credit, insurance, or guarantees, among others.

Small communities operate about 50 percent of the landfills potentially affected by this rule. In this rule, small landfills are those that serve communities that dispose of less than 20 tons of municipal solid waste per day. Certain of these small landfills are exempt from the design, groundwater monitoring, and corrective action requirements. To qualify for an exemption, a small landfill must not be causing groundwater contamination, and must be located in either a very dry climate or a very remote location.

**Implementation**

The national solid waste management program creates a framework for federal, state, and local government cooperation in controlling the management of municipal solid waste. While Subtitle D establishes minimum standards for protecting human health and the environment, implementation of solid waste programs remains largely a state responsibility.

Since implementation is primarily a state function, states will need to incorporate these standards into their permitting programs to ensure that landfills are being operated properly. EPA will evaluate each state's program to determine its adequacy for safely managing municipal solid waste. States that apply for, and receive, EPA's approval of their program, are provided extensive flexibility in implementing the regulations.

*(Excerpted from EPA Environmental Fact Sheet)*

2/26/93

U:\SW\RPT\SB12187

# ABOUT OUR NEW NOZZLE.

Chances are, you've noticed something different about the gas pumps at many Portland-area service stations. The old pump nozzle has been replaced with something new — a nozzle that looks like a small, circular accordion. While this device may look small, it's a big part of a new gas vapor recovery system that will help improve the quality of our air.

## What it does

Smell any odor of gasoline? Probably not. That's because the new nozzle prevents gasoline vapors from escaping from your tank into the atmosphere. Instead, those vapors are being pumped directly back into the service station's underground tank where they belong.

## That's good news

Gasoline vapors contribute to a form of pollution called ozone (most of us call it smog). By using this new vapor recovery system, the Department of Environmental Quality (DEQ) estimates we'll be able to reduce ozone-producing hydrocarbons by 3000 tons a year! That's almost six percent of the total hydrocarbon emissions in the entire Portland area.

## Other benefits

Vapor recovery also helps us to conserve gasoline. Pumping those gas vapors back into the underground tank will save nearly a half million gallons of gasoline each year in Portland. Health benefits? The new nozzles will eliminate exposure

to a gas vapor compound called benzene, recognized by health officials as a significant cancer risk.

## How you can help

It's easy. The new nozzle is simple to use if your car is positioned properly. Park directly alongside the pump you'll be using, and make sure the fuel cap is on the pump side. The specially-designed hoses won't be able to stretch to the opposite side of your car.

## Thanks!

Most important, thanks for your help! This service station has made an investment in Portland's air quality, and with your continued assistance, we can all breathe just a little bit easier.



Environmental Quality Commission Minutes  
Page 6  
January 28-29, 1993

provisions. Michael Huston, Assistant Attorney General, noted that items C-1 and C-2 are alternative approaches for clarifying that TCDD limits of the Commission's April 16, 1992, Order are enforceable. Mr. Huston provided the Commission with a brief background and discussion of the legal issues that prompt the agreement as a means of clarification. In regard to agenda item C-1, Mr. Huston said the agreement committed the mills and city to comply with all permit conditions except those related to AOX. Additionally, the agreement acknowledges the mills and city have a right to review by the Court of Appeals of the Commission's final order. He noted the mills had signed the proposed agreement.

In response to a question from Commissioner Lorenzen, Mr. Huston replied the mills have signed the agreement, and it was the state's position the mills would be subject to enforcement action if they are found to be in non-compliance. Commissioner Lorenzen asked for clarification on whether it could be considered a partial final order and the issue of a stay. Mr. Huston replied the Administrative Procedures Act contemplates only one order on a case; therefore, the court would be expected to conclude the order is not final until the AOX reconsideration is completed. With regard to a stay, he noted the mills have not requested a stay, and they would have to make such a request to the Commission first.

Commissioner Castle suggested wording changes to paragraph 14 to better clarify the matter related to a stay:

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

Richard Williams, attorney for James River, Michael Campbell attorney for Boise Cascade, and John Bonine, representing Northwest Coalition for Alternatives to Pesticides and Columbia River United, spoke to the Commission about Agenda Items C-1 and C-2.

Mr. Williams said the TCDD limits were clearly enforceable. He indicated that James River did not want the TCDD provision of the order reviewed by the court now but they wanted to preserve that option. Mr. Campbell stated he agreed with Mr. Williams; he said the order was not final but was enforceable.

To: Fred Hansen

From: Fredrick Moore

Re: CHEMICAL WASTE MANAGEMENT WITHDRAWAL OF LANDFILL EXPANSION REQUEST

(Fred: FYI - For more specific information, Chemical Waste Management will be attending and can answer for themselves if need be. Also, attached is a copy of the fax)

DEQ learned by fax yesterday that Chemical Waste Management is withdrawing their modification request to expand landfill L-12, and therefore the second part of Agenda Item F is no longer an issue.

We believe Chem Waste is withdrawing the request because of some outstanding groundwater issues that were unlikely to be resolved by the April 15 deadline for the facility to begin construction of the landfill expansion.

Optional Follow-up (in anticipation that EOC may want more information):

The permitting of the landfill expansion, as well as granting temporary authorization, is a joint DEQ/EPA decision. The outstanding ground water issues were of the nature of submitting confirming information regarding the characterization of on-site groundwater. DEQ's evaluation concluded it was unlikely that the confirming information would show that a landfill couldn't be constructed according to regulation, and hence DEQ felt it would be inappropriate to let the later submission of the confirming information impede construction of the expansion.

On the other hand, EPA believed as a matter of permitting policy, and not from a belief that a landfill expansion could not be sited as requested, wanted the confirming information addressed, and then require a public notice, before EPA would grant temporary authorization.

DEQ believes that Chemical Waste Management speculated that the confirming groundwater information would take an inordinate amount of time to resolve among all parties, and financially would be more efficient to finish L-12 as currently permitted, and submit a new modification for a new landfill later.



Chemical Waste Management of the Northwest, Inc.

17629 Cedar Springs Lane  
Arlington, Oregon 97212  
503/454-2643

March 4, 1993

Mr. Dave St. Louis  
Department of Environmental Quality  
Hazardous Waste Division  
811 SW Sixth Avenue  
Portland, OR 97204  
[P 988 803 141]

Mr. Randall Smith  
Environmental Protection Agency  
Hazardous Waste Division  
1200 Sixth Avenue  
Seattle, WA 98101  
[P 988 803 142]

**SUBJECT: October 1, 1992 Class 3 Modification; L-12 Expansion  
Part B Permit ORD 089 452 353 (Permit)**

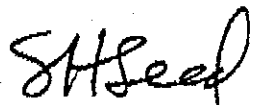
Dear Mr. St. Louis and Mr. Smith:

Through this letter, Chemical Waste Management of the Northwest, Inc. (CWMNW) is requesting the withdrawal of the Class 3 Permit modification for the expansion of the L-12 Landfill. This modification was originally proposed to DEQ and EPA on October 1, 1992.

CWMNW has elected to withdraw this proposal because we believe that there will not be sufficient time before April 15, 1993, for the agencies and CWMNW to reach concurrence on all outstanding issues related to the monitoring network for the proposed expansion. Construction of the L-12 Landfill must be initiated by April 15, 1993, to ensure that there is no interruption in our operation.

CWMNW appreciates the level of effort which DEQ and EPA put forward in reviewing our proposal, and we look forward to working with you as closely in the future.

Sincerely,  
Chemical Waste Management of the Northwest, Inc.

  
Stephen H. Seed  
General Manager

cc: Catherine Massimino (EPA) [P 988 803 143]  
Fredrick Moore (DEQ) [P 988 803 144]  
Mike Renz (DEQ) [P 988 803 147]

**Oregon's Cross-Media Risk Assessment Project**

**Presentation to the  
Environmental Quality Commission  
March 5, 1993**

**Oregon DEQ  
811 SW Sixth  
Portland, OR 97204**

**Marianne Fitzgerald  
Cross-Media Project  
Coordinator  
(503) 229-5946**

**Regina Bridwell  
Agency Toxicologist  
(503) 229-6913**



## **DEQ MISSION**

**"The Mission of the Agency is to be an active force to restore, enhance, and maintain the quality of Oregon's air, water and land."**

## **STRATEGIC GOAL #1**

**"Address environmental issues on the basis of a comprehensive cross-media (air, water, land) approach."**

## **PROJECT GOALS**

- **Develop procedures to ensure greater cross-media coordination within DEQ, especially during permit review and enforcement activities.**
- **Develop a methodology to perform cross-media comparative risk analyses.**
- **Develop a more integrated approach to problem-solving that enhances our goal of pollution prevention.**

## **APPLICATION**

**Cross-media considerations would be integrated into:**

- **Rulemaking procedures**
- **Permit review procedures**
- **Compliance and enforcement activities**
- **Waste reduction technical assistance**

## MODEL APPLICATION

The cross-media risk assessment methodology would be used as a screening tool and would not be used in place of existing models. It would assist in decision-making, but would be only one of many factors considered when making a decision.

The model is still being field tested, but some of the areas we are considering its use include:

**RULES DEVELOPMENT:** to compare alternatives using a common basis for comparison

**PERMIT APPLICATION:** to evaluate long term fate and transfer of toxic substances in the environment

to compare alternative control technologies

to help determine the most environmentally sound approaches for waste treatment and disposal

**COMPLIANCE AND ENFORCEMENT:** to prioritize compliance and enforcement activities from a cross-media perspective

**POLLUTION PREVENTION:** to evaluate proposed alternatives such as chemical substitution or process changes which would result in a change in discharge, often to different media.

## **CROSS-MEDIA APPROACH TO RULEMAKING**

- **Question on the EQC Agenda  
Topic Form:**

**"Are there any cross-media issues  
associated with the proposed  
item and/or alternatives?"**

- **Cross-Media Workgroups**

## **CROSS-MEDIA APPROACH TO PERMITS**

- **Supplemental Permit Information Form**
- **E-Mail Communication System**
- **Cross-Media Workgroups**

## **DEFINITIONS**

- **Risk**
- **Risk assessment**
- **Risk analysis**
- **Comparative risk**
- **Risk management**

## **DEFINITIONS**

**Risk is the probability of suffering harm or loss. In environmental terms, risk is a function of hazard and exposure of ecological receptors to pollutants.**

**Risk assessment is the process of assessing the nature and magnitude of risk to human health and the environment following exposure to a hazard.**

**Risk analysis is the process used to determine, evaluate and compare risks. Risk analysis includes all of the functions of risk assessment, and determines the significance of risk and balancing alternatives.**

**Comparative risk is a process by which estimates of risks are identified and used as a common measure for comparison and priority setting.**

**Risk management is the decision-making process which integrates the information from risk assessments, risk analysis and comparative risk projects with information on technical feasibility, economic feasibility, and legal, social and political considerations with the intention of eliminating or reducing risk.**



## **COMPARATIVE RISK PROCESS**

- **Task**
- **Basis for Comparative Risk**
- **Decisionmaking Process**

## **MODEL APPLICATIONS**

- **Rules Development**
- **Permit Application**
- **Compliance and Enforcement**
- **Pollution Prevention**

## **FIELD TEST RESULTS**

- **Application**
- **Input Data**
- **HRI-ERI**
- **Analysis of Results**

## **CONCLUSIONS**

- **Developed a greater awareness among DEQ staff of the need to consider problems from a cross-media perspective;**
- **Developed tools to accomplish this:**
  - **Rulemaking Procedures**
  - **Supplemental Permit Form**
  - **Cross-Media Comparative Risk Assessment Methodology**
- **Will continue to re-evaluate the usefulness and effectiveness of these tools in accomplishing our goals.**

*1991-1992 Oregon Household Hazardous Waste Data Summary*

Date	Oil Paint	Latex Paint	Pesticides	Car Batteries	Used Oil	Antifreeze	Solvents	Acids/ Bases	Aerosols	Others	Total
1991 (Lbs.)	98,640	58,810	14,362	11,870	8,272	3,248	7,092	4,865	10,922	3,721	221,802
1992 (Lbs.)	181,560	100,020	51,407	41,901	40,305	7,818	31,965	12,810	10,145	11,647	489,578
Total Lbs.	280,200	158,830	65,769	53,771	48,577	11,066	39,057	17,675	21,067	15,368	711,380
Percentage of Waste	39%	22%	9%	8%	7%	2%	5%	2%	3%	2%	100%
Approximate Percentage of Cost	35%	23%	22%	0%	3%	1%	2%	4%	4%	7%	100%

qp9192wast

# Association of Oregon Recyclers

March 4, 1993

**Chair**

Rob Guttridge  
K.B. Recycling  
P.O. Box 550  
Canby, OR 97013  
(503) 659-7004

**Secretary**

Sharon Gregory  
METRO  
2000 SW First Ave.  
Portland, OR 97201  
(503) 221-1646

**Treasurer**

Bob Sjolander  
Albany-Lebanon  
Sanitation Co.  
P.O. Box 1929  
Albany, OR 97321  
(503) 928-2551

**Markets**

Max Brentano  
United Disposal Service,  
Inc.  
9500 SW Boeckman Rd.  
Wilsonville, OR 97070  
(503) 682-0336

**Legislation**

Suzanne Johannsen  
Bend Recycling Team  
P.O. Box 849  
Bend, OR 97709  
(503) 388-3638

**Education**

Gerry Uba  
METRO  
2000 SW First Ave.  
Portland, OR 97201  
(503) 221-1646 x240

**Special Projects**

Meg Lynch  
Resource Recycling  
Magazine  
P.O. Box 10540  
Portland, OR 97210  
(503) 227-1319

**AOR Office**

Charlotte A. Becker  
P.O. Box 15279  
Portland, OR 97215  
(503) 255-5087  
FAX 254-7536

John Fink  
Department of Environmental Quality  
811 S. W. Sixth Avenue  
Portland, OR 97204

Dear Mr. Fink:

I am writing on behalf of the Association of Oregon Recyclers (AOR) in response to the proposed amendments to the Pollution Control Tax Credit program. AOR is a trade association representing 380 businesses, government agencies, non-profit organizations and individuals. AOR is aware that the comment period has expired, but extenuating circumstances regarding the potential interpretation of these rules require that we request the following comments be entered either into the formal or informal record on this subject.

A member of the AOR Legislative Committee, Lissa West, contacted you in February regarding the impact of the rule changes on garbage haulers who collect recyclables, recycling processors, and end-users of recycled materials. At that time, Lissa was told that this would most likely not affect those businesses, and that they would still be eligible for pollution control tax credits. It was explained that, in most of these instances, the "pollution control facility" would not be considered integral to the operation of the business and that the rules were really written to try to exclude ground water protection equipment necessary at disposal sites from being eligible for tax credits. As a result of this discussion, AOR decided not to comment on the proposed rules.

Since that conversation, discussion centered around potential interpretations of these rules at an AOR Legislative Committee meeting. A member of the committee asked whether these rules could possibly be interpreted so as to eliminate recycling equipment or facilities from eligibility for a pollution control tax credit. AOR would take exception to any interpretation of these rules which would eliminate recycling equipment from being eligible for tax credit for the following reasons:

Historically, the Pollution Control Tax Credit (in conjunction with the ODOE Business Energy Tax Credit) has served as a market development tool for recyclable materials in the state. Any elimination of eligibility could therefore thwart efforts to increase in-state local markets for recyclable materials at the same time local jurisdictions are working to increase recycling throughout the state as required by ORS 459A.010.

P.O. Box 15279, Portland, OR 97215  
(503) 255-5087

ORS 459A.010 has required local jurisdictions throughout Oregon to increase the minimum recycling services provided within their communities. This often requires the purchase of new or additional equipment. The pollution control tax credit can assist in keeping those costs down, therefore minimizing the impact of new programs on recycling service providers and rate payers.

As additional recyclable material is diverted throughout the state, recycling processors will receive this increased amount of material. Existing processors may need to purchase additional equipment to handle this material and new processors may need to be established in certain areas of the state in order to handle recyclable materials efficiently and economically. Recycling is a capital and labor intensive industry. The pollution control tax credit could assist by allowing additional capital expenditures on equipment for efficient processing of recyclable materials.

In conclusion, AOR would find any interpretation of these rules which would limit the eligibility of recycling equipment for pollution control tax credits in direct conflict with the increased recycling mandates in ORS 459A.010. As mentioned before, recycling is a capital and labor intensive industry. Any tax credit that recyclers can receive on the purchase of equipment to handle the additional materials diverted from the waste stream between now and the year 2000 would allow broader use of the limited resources available to fund recycling systems. The AOR Legislative Committee requests a written response that clarifies the effect of these rule amendments on the recycling industry.

Thank you for your attention to this matter. If you have any questions about the concerns raised here, please feel free to contact me at 659-7004.

Sincerely,

A handwritten signature in black ink that reads "Rob Guttridge". The signature is written in a cursive, slightly slanted style.

Rob Guttridge  
Chair

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

1991-92 HOUSEHOLD HAZARDOUS WASTE SURVEY DATA

(Collected from 5,894 Participants at 27 DEQ Household Hazardous Waste Collection Events Held in 1991 and 1992)

<u>SURVEY QUESTIONS</u>	<u>TOTAL</u>
Number of Surveys Returned	5,894
<b>IF NO COLLECTION EVENT, HHW WOULD BE PUT:</b>	
Garbage can	29%
Indoor sink	1%
Storm drain	1%
Recycling center	18%
Give away	13%
Store indefinitely	38%
Other	11%
<b>OLDEST PRODUCT BROUGHT TO COLLECTION EVENT:</b>	
Less than 1 year	3%
1 - 4 years	16%
5 - 9 years	24%
More than 10 years	28%
Unknown	18%
<b>WOULD USE HHW COLLECTION EVENT:</b>	
Once per year	54%
Twice per year	26%
Monthly	5%
No need again	3%
<b>IF FEE, WOULD PREFER:</b>	
Based on amount/type	61%
Added to product cost	14%
Added to utility/garbage bill	8%
Other	4%
Not willing to pay	6%
<b>WOULD PAY FEE OF:</b>	
\$0	6%
\$2	36%
\$5	30%
\$10	9%
<b>DISTANCE TRAVELED TO ATTEND:</b>	
0 - 5 miles	57%
5 - 10 miles	18%
10 - 25 miles	11%
Greater than 25 miles	3%
<b>DISTANCE WILLING TO TRAVEL:</b>	
0 - 5 miles	19%
5 - 10 miles	33%
10 - 25 miles	26%
Greater than 25 miles	9%
<b>AGE GROUP:</b>	
16 - 25	1%
26 - 35	9%
36 - 45	21%
46 - 55	15%
56 and over	43%

PHB 5030      Made in England      W.C.      on 10/10/1953

R.H. No.	Description	Dia.	Length	Weight	Remarks

R.H. Backing Log

March 1953



March 5, 1993

## Bill Tracking Log

Bill No.	Description	Div	Position	Track	Fiscal	Status
HB 2070	Water Pollution Control Administration Fund	WQ	support	Y	Y	On 1/20 assigned to Subcommittee on Environment and Energy.
HB 2071	Tax Credit Program Sunset	ECD	support	Y	Y	Work session held 2/19 in Revenue Subcommittee.
HB 2149	Wellhead Protection	WQ	support	Y	Y	Tabled on 2/25 in Water Committee.
HB 2214	Motor Vehicle Testing	AQ	support	Y	Y	Work session on 3/4 in special Task Force on Vehicle Emmission Reduction. (Revenue subcommittee chaired by Rep. Tom Brian)
SB 27	Compliance with EPA Subtitle D Regulations	HSW	support	Y	N	Work session on 3/3 in Senate Agriculture and Natural Resources.
SB 42	Corrects erroneous material in Oregon solid waste and recycling laws	HSW		Y		Passed Senate floor. Now assigned to Natural Resources on 2/24.
SB 86	Clean Air Act Updates	AQ	support	Y	Y	Hearing held on 2/19 in Senate Agriculture and Natural Resources.
SB 87	Underground Storage Tank Fee Increase	HSW	support	Y	Y	Hearing held on 2/2 in Senate Agriculture and Natural Resoures.
SB 88	Environmental Crimes	RO	support	Y	Y	On 3/8 hearing in Senate Agriculture and Natural Resources.

March 5, 1993

## Bill Tracking Log

Bill No.	Description	Div	Position	Track	Fiscal	Status
HB 2070	Water Pollution Control Administration Fund	WQ	support	Y	Y	On 1/20 assigned to Subcommittee on Environment and Energy.
HB 2071	Tax Credit Program Sunset	ECD	support	Y	Y	Work session held 2/19 in Revenue Subcommittee.
HB 2149	Wellhead Protection	WQ	support	Y	Y	Tabled on 2/25 in Water Committee.
HB 2214	Motor Vehicle Testing	AQ	support	Y	Y	Work session on 3/4 in special Task Force on Vehicle Emission Reduction. (Revenue subcommittee chaired by Rep. Tom Brian)
SB 27	Compliance with EPA Subtitle D Regulations	HSW	support	Y	N	Work session on 3/3 in Senate Agriculture and Natural Resources.
SB 42	Corrects erroneous material in Oregon solid waste and recycling laws	HSW		Y		Passed Senate floor. Now assigned to Natural Resources on 2/24.
SB 86	Clean Air Act Updates	AQ	support	Y	Y	Hearing held on 2/19 in Senate Agriculture and Natural Resources.
SB 87	Underground Storage Tank Fee Increase	HSW	support	Y	Y	Hearing held on 2/2 in Senate Agriculture and Natural Resources.
SB 88	Environmental Crimes	RO	support	Y	Y	On 3/8 hearing in Senate Agriculture and Natural Resources.

March 17, 1993

## Bill Tracking Log

Bill No.	Description	Div	Position	Track	Fiscal	Status
HB 2070	Water Pollution Control Administration Fund	WQ	support	Y	Y	On 1/20 assigned to Subcommittee on Environment and Energy.
HB 2071	Tax Credit Program Sunset	ECD	support	Y	Y	March 16 - Work Session scheduled
HB 2107	Water Rights Exemption, Process for Registration	WQ	might support	Y	Y	Feb. 2 - Public Hearing held
HB 2108	Water Wells: Location Disclosure and Testing	WQ	support	N	N	
HB 2109	Indian Water Right Claims	WQ	support	N	N	
HB 2110	Water Rights Adjudication Fees for Federal Claimants	WQ	support	N	N	
HB 2128	Fire Marshall: agreements for inspections of non-retail gasoline dispensers	AQ/ECD	Neutral	Y	N	March 17 - Public Hearing scheduled.
HB 2130	Fire Marshall Civil Penalty Authority	RO		Y	N	March 17 - Public Hearing scheduled
HB 2139	Fill/Removal: Defines Reclaiming	WQ	none	N	N	
HB 2148	Increases Motor Vehicle Fees	AQ				
HB 2149	Wellhead Protection	WQ	support	Y	Y	Tabled on 2/25 in Water Committee.
HB 2153	Water Right Exemption, Registration for Certain Uses	WQ	Neutral	Y	N	Feb. 2 - Public Hearing held
HB 2154	Water Resources Dept. Fee Increase	WQ		N	N	
HB 2155	Water Conservation	WQ	support	N	N	

Bill No.	Description	Div	Position	Track	Fiscal	Status
HB 2206	PUC Enforcement for handling Hazardous Waste	HSW				
HB 2211	Field Burning Statute Amendments	AQ	DEQ supports	Y	N	Feb. 24 - Public Hearing held
HB 2214	Motor Vehicle Testing	AQ	support	Y	Y	Work session on 3/4 in special Task Force on Vehicle Emission Reduction. (Revenue subcommittee chaired by Rep. Tom Brian)
HB 2215	Watershed Management, SWMG (Voluntary Partnerships)	WQ	Support	Y	N	March 25 - Public Hearing & Possible Work Session scheduled
HB 2245	Forest Practice Act; harvest taxes	WQ		N	N	
HB 2262	Agency Rulemaking Process Revisions	MSD/OD				
HB 2263	Publication of Administrative Rules Bulletin	MSD/OD				
HB 2340	Irrigation district to provide water for domestic, municipal, and industrial purposes	WQ	Neutral	N	N	
HB 2344	De Minimis Uses of Water Above or Within Scenic Waterways	WQ	neutral	Y	N	March 12 - Second reading
HB 2346	Declares shortage of water resources is matter of statewide concern	WQ	support	Y	Y	March 12 - Third reading. Carried by Norris. Passed.
HB 2408	Relating to land use decisions	MSD		Y	N	March 19 - Public Hearing scheduled. April 2 - Public Hearing & Possible Work Session scheduled.

Bill No.	Description	Div	Position	Track	Fiscal	Status
HB 2419	Vehicle Emission fee in Portland metropolitan area	AQ	support	Y	Y	March 4 - Informational Meeting held.
HB 2423	Fuel Taxes	AQ				
HB 2427	Selling new automotive batteries or tires	hsw	neutral	Y	N	January 15 - Referred to General Government with subsequent referral to Revenue and School Finance.
HB 2471	Illegal Drug Lab Cleanup Fund	ECD	support	Y	Y	Feb. 1 - Public Hearing held
HB 2487	Establishes Oregon Adopt-a-River Program	WQ				
HB 2494	State Expenditures	MSD				
HB 2496	Adopts standards regulating out-of-state travel	MSD				
HB 2505	In-stream water rights	WQ	Oppose	N	N	
HB 2581	Pesticide Liability	HSW				
HB 2662	Regulation of Environmental Quality	ECD	Oppose	Y	Y	March 15 - Public Hearing scheduled
HB 2701	Deposit on all Beverage containers	HSW				
HB 2715	Limits authority of LCDC	MSD				
HB 2716	Agency Rulemaking	DA's/Hal				
HB 2717	Public Employee Retirement	MSD				
HB 2735	Land Use Administration	MSD				
HB 2771	Minimum Stream Flow Conversion Date	WQ	Oppose	Y	N	March 4 - Assigned to Subcommittee on Water

Bill No.	Description	Div	Position	Track	Fiscal	Status
HB 2772	Limit WRDs Permit Authority to identify the season of use of a water right	WQ	Oppose	Y	N	Feb. 17 - Assigned to Subcommittee on Water
HB 2776	Provides for transfer of lien on UST essential services grant. Changes scope of possible lien.	HSW	Supports	Y	Y	Feb. 9 - Referred to Natural Resources
HB 2782	Settlement Judge Account in General Fund	RO/AG				
HB 2801	Additional remedies for discrimination in employment	MSD				
HB 2847	LRAPA Authority	AQ	Support	Y	N	Feb. 10 - Referred to Natural Resources
HB 2848	Best Verifiable Scientific Data	WQ	Oppose	Y	Y	March 11 - Work Session held
HB 2881	Contractor Operation of Vehicle Inspection Program	AQ	oppose	Y	Y	Feb. 15 - Referred to General Government
HB 2893	Citizen Suit Provisions for Mining Projects	WQ/AG/M SD	???	Y	Y	Feb. 15 - Referred to Judiciary
HB 2927	Modifies procedure for listing Threatened & Endangered Species	WQ	Oppose	Y	N	March 26 - Public Hearing scheduled. March 31 - Public Hearing & Possible Work Session scheduled
HB 2928	Instream Water Rights Fee Bill	WQ/MSD	Strongly oppose	Y	Y	March 4 - Assigned to Subcommittee on Water
HB 3057	Oxygenated Fuel Fees	AQ	oppose	Y	Y	March 4 - Assigned to Subcommittee on Environment & Energy

Bill No.	Description	Div	Position	Track	Fiscal	Status
HB 3173	State-wide Motor Vehicle Emission Fee	AQ	Support	Y	N	Feb. 26 - Referred to Natural Resources with subsequent referral to Revenue & School Finance
HB 3289	Allocates Lottery funds for UST financial assistance Program	HSW	Neutral/support	Y	Y	March 4 - Referred to Natural Resources with subsequent referral to Ways and Means
HB 3299	Authorizes congestion pricing pilot project	AQ	support	Y	N	March 3 - Referred to General Government
HB 5022	DEQ Appropriation Bill	MSD		Y		January 14 - Referred to Ways & Means
HB 5050	Allocates money from CCTF to DOT for biennial expenses	MSD				
SB 8	Directs NHDC to develop Oregon Biodiversity Plan	WQ	support	N	N	
SB 27	Compliance with EPA Subtitle D Regulations	HSW	support	Y	N	Work session on 3/3 in Senate Agriculture and Natural Resources.
SB 42	Corrects erroneous material in Oregon solid waste and recycling laws	HSW		Y	Y	March 4 - Assigned to Subcommittee on Environment & Energy
SB 43	Recycling program cost	hsw				
SB 48	Allows WRC to impose civil penalty for violation of dam safety standards etc	WQ	Neutral	N	N	
SB 67	Household Hazardous Waste Funding	hsw	Support	Y	Y	March 19 - Work Session scheduled

Bill No.	Description	Div	Position	Track	Fiscal	Status
SB 76	Defines state management official for purposes of collective bargaining	MSD				
SB 86	Clean Air Act Updates	AQ	support	Y	Y	Hearing held on 2/19 in Senate Agriculture and Natural Resources.
SB 87	Underground Storage Tank Fee Increase	HSW	support	Y	Y	Hearing held on 2/2 in Senate Agriculture and Natural Resources.
SB 88	Environmental Crimes	RO	support	Y	Y	March 19 - Public Hearing scheduled
SB 89	Withdraw Waters from Appropriation Process	WQ	support	N	N	
SB 89	Withdrawal of Waters from Appropriation	WQ				
SB 90	Allows WRC to designate by rule add't exempt uses of ground water	WQ				
SB 91	Allows WRC to establish water use reporting area	WQ	Support	N	N	
SB 92	Establishes preference during emergency water shortage	WQ	Support	N	N	
SB 97	Terminates temporary DLCD periodic review procedure for local gov't land plans	MSD		N	N	
SB 116	Agricultural production protections	WQ/AQ				
SB 116	Protects agricultural activities on specified lands from certain civil actions	WQ				



Bill No.	Description	Div	Position	Track	Fiscal	Status
SB 122	Allows coordinated planning for urban growth to be required by LCDC	MSD		N	N	
SB 123	Wastewater System Improvement Fund	WQ	support	Y	N	March 2 - Public Hearing held
SB 125	Establishes EDD administred state grant and loan program for municipalities	WQ	netural	Y	N	January 26 - Referred to Trade & Economic Development, then Ways and Means
SB 126	Authorizes EDD to issue loans and award grants from Safe Drinking Water Fund	WQ	Support	Y	N	March 2 - Public Hearing held
SB 129	Diversion Structure Water Right Permit	WQ	support	N	N	
SB 130	Repeals marginal lands provisions	MSD		N	N	
SB 153	Energy Commission	WQ	Neutral	N	N	
SB 170	Abolishes Oil Heat Commission	ECD/HSW	Support	Y	Y	March 24 - Public Hearing scheduled
SB 186	Bidders and crime convictions relating to natural resources	RO				
SB 187	Fuel economy surcharge	AQ	neutral	Y	N	March 1 - Public Hearing and Work Session held
SB 188	Allows governing board of DGMI to impose civil penalty.. surface mining, mineral exploration etc of mining lands	AQ/RO				
SB 189	SW Citizen Suits	HSW/RO	Neutral	Y	N	Feb. 22 - Public Hearing and Work Session held
SB 192	Aggregate removal on anadromous fish habitat	WQ				

Bill No.	Description	Div	Position	Track	Fiscal	Status
SB 195	Pesticide Use Reporting	hsw	Support	Y	N	March 17 - Public Hearing scheduled
SB 315	Oil contaminated soils	AQ/HSW		Y	Y	March 17 - Work Session scheduled
SB 347	Sewage Treatment Works	WQ/MSD	Netural	Y	Y	March 2 - Public Hearing scheduled
SB 347	Tax credit	MSD/WQ				
SB 358	Reports on temporary employees	MSD				
SB 359	Employment rights of state employees	MSD				
SB 399	Enhanced I/M in PDX area	AQ	support	Y	Y	Feb. 25 - referred to Agriculture and Natural Resources
SB 400	State grazing program	WQ				
SB 417	Citizen Suit for OSHD	WQ/MSD	Neutral	Y	N	March 15 - Public Hearing scheduled
SB 418	Citizen Suit Provisions for DEQ	WQ/AG	??	Y	Y	March 1 - Public Hearing held
SB 425	Smog Fee	AQ	Support	Y	Y	Feb. 18 - Referred to Agriculture and Natural Resources, then Transportation, then Ways & Means
SB 440	Defines in-stream flow	WQ	oppose	Y	Y	March 18 - Public Hearing scheduled
SB 441	Take All the Water You Want Act	WQ	Oppose	Y	N	March 18 - Public Hearing scheduled
SB 755	Senate Trade & Economic Development Committee Lottery Bill	WQ/MSD	support	Y	Y	March 18 - Work Session scheduled
SJR 1	The Right to a healthful enviornment	All	Support	Y	Y	Feb. 15 - Public Hearing held

Bill No.	Description	Div	Position	Track	Fiscal	Status
SJR 2	Constitutional Amendment to Allow Gas Taxes & Motor Vehicle Taxes to be used for Transit	AQ	Netural	Y	N	March 17 - Public Hearing scheduled
SJR 11	State funded retirement plans	MSD				

Date: March 5, 1993

**To:** Environmental Quality Commission  
**From:** Fred Hansen  
**Subject:** Director's Report

### **Oxygenated Fuel Program**

The Oxygenated Fuel Program officially came to an end March 1, and from an air quality perspective the program was a great success. We had significantly lower average and peak CO levels, and a slightly higher rate of passage for cars at our vehicle inspection stations. Part of the reason for low ambient CO levels was good ventilation, but the data suggests oxy fuel was a major factor. We are still checking, but so far it looks like our CO levels this winter were the lowest on record.

### **Non-friable Asbestos Regulation**

The Oregon Asbestos Advisory Board has completed its review of DEQ's asbestos regulation and recommends (8 to 2) that it remain as adopted by the EQC on September 18, 1991. At that meeting, the EQC adopted changes as contained in the EPA's new Nation Emission Standard For Hazardous Air Pollutants (NESHAP) and that are required by our federal delegation. One of the new NESHAP standards was less stringent than existing DEQ regulations and Department staff did not agree with this approach. It would have allowed floor covering that contained asbestos to remain in place during building demolition.

### **Strategic Water Management Group Task Force Report**

A Strategic Water Management Group (SWMG) task force has completed its review on implementation of the Groundwater Protection Act of 1989. Task force members reviewed how each of the involved agencies (ODA, WRD, DEQ, OSU, etc.) have responded to the Act over the past three years. The group's recommendations to SWMG are that the groundwater program declare no new groundwater management areas in the next biennium and instead spend more resources on statewide groundwater quality monitoring, data management and community involvement.

### **Status of the UST Financial Assistance Program**

#### **Backyard Burning Ban Request**

We received a letter from John Charles (OEC) and Jeanne Roy last month requesting that the Department extend the backyard burning ban in the Portland metro area to the outlying communities of Gresham, Troutdale, Hillsboro Forest Grove, etc. The reason for the request is to support yard debris recycling.

Memo To:

March 3, 1993

Page 2

DEQ does not plan to proceed with rulemaking because the state statute on this requires that any extension of the ban boundary can only be done if required to meet air quality standards. We cannot, at this time, demonstrate that air quality standards would not be met. We will try to work with OEC to determine ways to address the problems of yard debris processors in other ways. One thing the Department has done in the past year is to significantly reduce the number of hardship burning permits we issue, because of the greater availability of yard debris pickup and processing options.

#### **VOC Sources Out of Compliance with RACT and New Source Review Requirements**

The Air Quality Division has recently discovered a number of sources whose emissions have exceeded not only the Reasonably Available Control Technology (RACT) requirements, but also the 40-ton per year Volatile Organic Compound Significant Emission Rate. In most cases, the industrial sources did not report or receive approval from DEQ for changes to production or process that led to noncompliance. Most have been discovered through review of their applications for permit renewal.

The Department is considering an approach to these sources that would involve enforcement action for exceeding the limits, but allow them to get below the significant emission rate through proper allocation of RACT. This would require a rule change by the Commission and approval by EPA.

#### **Hearing Authorization**

Use of the Solid Waste Orphan Site Account

The proposed rule establishes eligibility requirements for use of the solid waste Orphan Site Account, criteria for selection of projects and the amounts to be spent from the account for cleanup activities, and conditions for use of Orphan Site Account funds.

**Oregon's Cross-Media Risk Assessment Project**

**Presentation to the  
Environmental Quality Commission  
March 5, 1993**

**Oregon DEQ  
811 SW Sixth  
Portland, OR 97204**

**Marianne Fitzgerald  
Cross-Media Project  
Coordinator  
(503) 229-5946**

**Regina Bridwell  
Agency Toxicologist  
(503) 229-6913**

## DEQ MISSION

**"The Mission of the Agency is to be an active force to restore, enhance, and maintain the quality of Oregon's air, water and land."**

## STRATEGIC GOAL #1

**"Address environmental issues on the basis of a comprehensive cross-media (air, water, land) approach."**

*technically defined risk*  
*perception of risk*

## **PROJECT GOALS**

- **Develop procedures to ensure greater cross-media coordination within DEQ, especially during permit review and enforcement activities.**
- **Develop a methodology to perform cross-media comparative risk analyses.**
- **Develop a more integrated approach to problem-solving that enhances our goal of pollution prevention.**



## **APPLICATION**

**Cross-media considerations would be integrated into:**

- **Rulemaking procedures**
- **Permit review procedures**
- **Compliance and enforcement activities**
- **Waste reduction technical assistance**

## MODEL APPLICATION

The cross-media risk assessment methodology would be used as a screening tool and would not be used in place of existing models. It would assist in decision-making, but would be only one of many factors considered when making a decision.

The model is still being field tested, but some of the areas we are considering its use include:

**RULES DEVELOPMENT:** to compare alternatives using a common basis for comparison

**PERMIT APPLICATION:** to evaluate long term fate and transfer of toxic substances in the environment

to compare alternative control technologies

to help determine the most environmentally sound approaches for waste treatment and disposal

**COMPLIANCE AND ENFORCEMENT:** to prioritize compliance and enforcement activities from a cross-media perspective

**POLLUTION PREVENTION:** to evaluate proposed alternatives such as chemical substitution or process changes which would result in a change in discharge, often to different media.

## **CROSS-MEDIA APPROACH TO RULEMAKING**

- **Question on the EQC Agenda  
Topic Form:**

**"Are there any cross-media issues  
associated with the proposed  
item and/or alternatives?"**

- **Cross-Media Workgroups**

## **CROSS-MEDIA APPROACH TO PERMITS**

- **Supplemental Permit Information Form**
- **E-Mail Communication System**
- **Cross-Media Workgroups**

## **DEFINITIONS**

- **Risk**
- **Risk assessment**
- **Risk analysis**
- **Comparative risk**
- **Risk management**

## **DEFINITIONS**

**Risk is the probability of suffering harm or loss. In environmental terms, risk is a function of hazard and exposure of ecological receptors to pollutants.**

**Risk assessment is the process of assessing the nature and magnitude of risk to human health and the environment following exposure to a hazard.**

**Risk analysis is the process used to determine, evaluate and compare risks. Risk analysis includes all of the functions of risk assessment, and determines the significance of risk and balancing alternatives.**

**Comparative risk is a process by which estimates of risks are identified and used as a common measure for comparison and priority setting.**

**Risk management is the decision-making process which integrates the information from risk assessments, risk analysis and comparative risk projects with information on technical feasibility, economic feasibility, and legal, social and political considerations with the intention of eliminating or reducing risk.**

## **COMPARATIVE RISK PROCESS**

- **Task**
- **Basis for Comparative Risk**
- **Decisionmaking Process**

## **MODEL APPLICATIONS**

- **Rules Development**
- **Permit Application**
- **Compliance and Enforcement**
- **Pollution Prevention**

## **FIELD TEST RESULTS**

- **Application**
- **Input Data**
- **HRI-ERI**
- **Analysis of Results**



## **CONCLUSIONS**

- **Developed a greater awareness among DEQ staff of the need to consider problems from a cross-media perspective;**
- **Developed tools to accomplish this:**
  - **Rulemaking Procedures**
  - **Supplemental Permit Form**
  - **Cross-Media Comparative Risk Assessment Methodology**
- **Will continue to re-evaluate the usefulness and effectiveness of these tools in accomplishing our goals.**



O R E G O N  
E N V I R O N M E N T A L  
C O U N C I L

February 19, 1993

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**Executive Director**

John Charles

Mr. Steve Greenwood  
Administrator  
Air Quality Division  
Department of Environmental Quality  
811 SW Sixth  
Portland, OR 97204


Dear Steve,

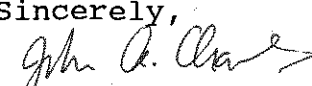
The air quality rules that allow residential open burning are negatively affecting the Metro solid waste plan to collect yard debris for composting. We think the time has come to extend the Portland metropolitan backyard burning restrictions to the rest of the Metro region.

Local governments required to implement the Regional Yard Debris Recycling Plan are Clackamas, Multnomah, and Washington counties inside the Urban Growth Boundary (UGB) and cities within the Metro boundary. These jurisdictions are expected to establish weekly collection (or equivalent) programs by July, 1994. Yet the open burning rules allow seasonal burning of yard debris in Hillsboro, Forest Grove, Sherwood, Wilsonville, Happy Valley, Gresham, Troutdale, Fairview, Wood Village, and parts of the three counties. An efficient, cost-effective collection system cannot exist where residents are allowed to open burn.

An additional reason to end residential open burning in these areas is that regional yard debris processors have invested in land and equipment with the expectation of receiving yard debris. They are not getting enough.

We request that DEQ begin proceedings to change the open burning rules, OAR 340-23-065(5), 340-23-070(5), and 340-23-075(5) to prohibit burning of yard debris within counties inside the UGB and cities inside the Metro boundary.

  
Jeanne Roy, Chair  
Recycling Advocates

Sincerely,  
  
John A. Charles  
Executive Director  
Oregon Environmental Council



RECEIVED  
FEB 22 1993

Environmental Quality Commission

- Rule Adoption Item
- Action Item
- Information Item

Agenda Item E  
March 5, 1993 Meeting

**Title:**

Report on Oregon's Cross Media Risk Assessment Project

**Summary:**

This report summarizes the Department's Cross Media Risk Assessment Project, which has been funded through an EPA grant, and presents the results, findings and recommendations of the Project.

Over the past 15 months the Cross Media Project staff and advisory committee members revised formal rule making procedures to ensure that cross media impacts would be evaluated, reworked permitting procedures to help the applicant and DEQ staff analyze facility impacts in all environmental areas of concern and facilitated dialogue among the Department's programs in addressing the cross media approach.

In addition a Cross Media Comparative Risk computer model was developed which ranks chemical exposure and its associated hazard to human and ecological risks. Field tests are currently in progress to evaluate this tool's ability to provide relative risk information in decision making.

It is anticipated that the methodology developed by this project will continue to be applied in DEQ programs and will serve as a starting point for other states who are interested in a cross media approach to their environmental protection.

**Department Recommendation:**

The Department recommends that the Commission accept this report, discuss the matter and provide guidance to the Department as appropriate.

Theranne E. Fitzgerald  
Report Author

Tom Bishop  
Division  
Administrator


Jul Hansen  
Director

February 11, 1993

State of Oregon  
Department of Environmental Quality

Memorandum<sup>†</sup>

Date: February 16, 1993

To: Environmental Quality Commission  
From: Fred Hansen, Director   
Subject: Agenda Item E, March 5, 1993, EQC Meeting

Report on Oregon's Cross-Media Risk Assessment Project

Statement of Purpose

The Oregon Department of Environmental Quality was awarded a grant from the U.S. Environmental Protection Agency to develop a methodology for incorporating cross-media risk assessment considerations into agency programs which traditionally have been focused on single-media concerns in air pollution, water pollution, or waste management. The project was designed to develop procedures to ensure cross-media coordination within DEQ, develop a methodology for evaluating cross-media impacts, and develop a more integrated approach to problem-solving that enhances our goal of pollution prevention.

The first goal in DEQ's Strategic Plan, adopted in 1990, states that the agency will "address environmental issues on the basis of a comprehensive cross-media (air, water land) approach." It states, "This goal will require the Agency to revise and update procedures for permit application and evaluation, permit issuance, review of engineering plans, and review of technical proposals to assure that the requirements in one environmental medium (air, water, land) complement the efforts in other media and do not create new problems. It also calls for special efforts to assure that agency actions and standards protect health and the environment, are based on uniform acceptable risk factors, appropriately consider cumulative effects of pollutant exposure through various pathways, and provide an adequate margin of safety. To support this goal, it will be necessary to establish a data management system in which ambient environmental data, source emission data, and compliance information from each program are accessible and useful to other programs."

The Cross-Media Risk Assessment Project was successful in identifying and developing several methods for DEQ staff to achieve this goal. This report summarizes the project results, findings, and recommendations. Specific applications will be discussed during the Work Session.

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<sup>†</sup>A large print copy of this report is available upon request.

### **Background**

The history of environmental regulatory programs in Oregon and the nation centers around the laws which were enacted to solve specific environmental programs. The Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, and the Superfund laws were written to address problems in air pollution, water pollution, toxic waste management, and cleanup of contaminated properties. The federal EPA and the Oregon DEQ established budgets and organizational structures to correspond with the legislative mandates, resulting in each mandate being administered by separate programs within the regulatory agencies. This segmentation of regulatory authority, while successful in meeting the mandates, has sometimes had the effect of regulating discharges to one medium without regard to their effect on others. The traditional "command and control" approach to controlling pollutant discharges to a single medium may not adequately evaluate cross-media impacts, and may not adequately allow for consideration of pollution prevention alternatives. This single-medium approach impedes our effectiveness in dealing with facilities with multi-media concerns, and in fostering a proactive preventative approach to environmental management.

The Cross-Media Risk Assessment Project was designed to develop procedures to ensure cross-media coordination within DEQ, develop a methodology for evaluating cross-media impacts, and develop a more integrated approach to problem-solving that enhances our goal of pollution prevention. This integrated approach could be applied in several different ways:

- During permit application review, to evaluate long-term fate and transport of toxic chemicals discharged to the environment, evaluate alternatives for control or treatment of pollutants, and determine the most environmentally sound approaches for pollution prevention and waste management and disposal. For example, a particular air pollution control technology may result in increased discharge to the surface water. The relative risks would be evaluated to determine if a net environmental benefit would be demonstrated.
  
- During the rulemaking process, to consider broad cross-media issues through a comparative risk approach. One example would be to compare the tradeoffs between air pollution caused by field burning and water pollution caused by increased fertilizer use on the fields. Another example would be to compare the relative risk associated with heat treatment of petroleum contaminated soil with open aeration of the soil.

- Within enforcement programs, to prioritize compliance and enforcement resources, so that sites or pollutants representing the greatest cross-program environmental risk are given highest priority.

In order to accomplish the project goals, project staff needed to develop an internal communication process as well as the tools for considering cross-media, human health and ecological impacts when evaluating alternatives. We did this by researching similar work done by EPA and other states, and by setting up the advisory committees described below.

#### **Authority of the Commission with Respect to the Issue**

The Commission has discussed the concepts of risk, risk assessment, risk analysis and risk management in several previous rule adoptions and work sessions. The Cross-Media Risk Assessment Project has selected a comparative risk approach to evaluating cross-media impacts. This approach, which differs from the traditional risk assessment process, has been increasingly used to evaluate alternatives and set priorities. A comparative risk assessment can be used as an analytical tool in the decisionmaking process, where relative risk is considered along with other factors such as technical and economic feasibility, long term liability, and social and political considerations. In this process, the decisionmaker would assimilate information about a problem, consider the basis for risk and the limitations of the model, make judgements about what is most important, and set priorities for action. The Commission may be expected to use the comparative risk process as a decisionmaking tool, to set priorities based on risk, or to choose among alternatives based on risk reduction potential.

#### **Summary of Public Input Opportunity**

Two committees were established to provide input on all aspects of the Cross-Media Risk Assessment Project. An internal steering committee consisting of 15 representatives from the Department's Air Quality Division, Water Quality Division, Hazardous and Solid Waste Division, Environmental Cleanup Division, Regional Operations Division and Laboratory Division met more than twelve times over the course of the year to make recommendations on both the framework for improved cross-media coordination and the methodology to perform cross-media comparative risk assessments. A Cross-Media Advisory Committee consisting of 12 representatives from the regulated community, environmental interests, and experts in risk assessment techniques met five times to review and comment on the development of the methodology and discuss the use of risk

analysis in decisionmaking at DEQ. Two subcommittees (a Toxicology Subcommittee and a Forms Subcommittee) also met several times on specific technical aspects of the project. The participation of all of these members, as well as others who attended committee meetings, was critical to the success of the project. A list of Advisory Committee and Steering Committee members is attached.

### **Project Results and Findings**

Over the course of the last 15 months, the Cross-Media Project staff and committee members recommended procedures for identifying and discussing cross-media concerns in rulemaking and permit program activities, and developed a methodology for analyzing cross-media impacts and comparing relative risks associated with alternative strategies. We are currently in the midst of a pilot phase to test the appropriateness of the forms and procedures which were adopted, and to test the utility of the Cross-Media Comparative Risk model in different applications.

Some specific findings and recommendations are summarized below:

- Formal rulemaking procedures were revised to incorporate language which prompts staff to investigate and evaluate potential cross-media impacts associated with a proposed rule or alternative.
- Permit program procedures were revised to incorporate a supplemental form which would be included with permit applications for new and modified facilities. The forms (one for new and one for modified facilities) are intended to benefit all parties concerned by considering overall environmental impacts early in the permit process and avoiding unnecessary delays during permit review and facility construction. The forms help both the applicant and DEQ analyze potential impacts of the proposed facility on all environmental areas of concern, and should facilitate dialogue among DEQ programs. Specific procedures rely on electronic communication and cross-media workgroups to identify and discuss issues. The main concern was the amount of additional time it would take to fill out the form, process the information, and coordinate with other programs who may have different priorities. The procedures will be re-evaluated after a pilot phase.
- A process for establishing cross-media workgroups was established to facilitate an integrated approach to rule development or permit review. Some of the specific recommendations address how to notify other programs, who should participate, what issues should be considered and how to document results.

- A Cross-Media Comparative Risk computer model was developed which evaluates cross-media impacts and ranks the relative risks to human health and the environment associated with pollutant discharges. This model is designed to be used as a screening tool in place of the more data-intensive traditional risk assessments. The model qualitatively determines the impact of exposure to a chemical and the hazard of this exposure through calculation of a human risk index (HRI) and an ecological risk index (ERI). The model then ranks these indices from low to high. The model also links to the Geographic Information System (GIS) software, one of EPA's most effective tools for integrating and geographically analyzing environmental data and displaying the output on maps.
- A number of basic assumptions have been made in the development of the model which are essential to understanding the utility as well as the limitations of the model. One of the most important considerations is that the Cross-Media Comparative Risk Model is merely a tool to provide one piece of information on which to base a decision (that is, relative risk), but many other factors (such as technical and economic feasibility and long-term liability) are equally important to the decisionmaking process.
- The DEQ is conducting field tests to test the application of the model in several areas: choosing between pollution prevention alternatives (such as chemical substitutes or alternative technologies); comparing alternative treatment technologies for petroleum contaminated soils; targeting inspections for several facilities within a region based on multi-media discharges; and choosing priority pollutants of concern at a facility with multi-media discharges. The field test results will be used to calibrate the model and evaluate its usefulness as a tool in the different applications.
- One major limiting factor in applying the model is the public availability of chemical-specific discharge or emission data. DEQ's current single-medium databases do not contain sufficient chemical-specific data or locational data to conduct the cross-media evaluation. EPA's Toxics Release Inventory (TRI) database provides the most comprehensive, multi-media database available at this time. Although the model is designed to input data from any source, we had to rely extensively on TRI data for field testing the model. An integrated database such as the one described in the Strategic Plan (and on page 1 of this report) is needed to generate a more holistic view of a facility.
- Another limiting factor in field testing the model was a concern about the public perception of risk and how the model results would be interpreted. The industry



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Agenda Item E  
March 5, 1993 Meeting  
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representatives on the advisory committee were reluctant to participate in the field tests without the ability to evaluate the results in confidence, prior to release to the public. The Attorney General's office advised that this is not possible unless the data meets the tests for confidentiality under Oregon's Public Records Law. The industry representatives are interested in testing the model independently from DEQ when a PC version of the model is available for distribution to the public. The advisory committee acknowledged the seriousness of this concern and recommended additional risk management and risk communication training for those using the model.

A major key to the success of the project is the institutionalization of the cross-media approach within DEQ programs. Project staff presented this project at the DEQ Quarterly Managers Conference on November 17, 1992 in which these findings and recommendations were reviewed and discussed. Project staff also worked with EPA Region 10 to develop a workshop on "Pollution Prevention in the Permit Process" on January 28, 1993 in which over 40 DEQ staff members participated. The cross-media project was presented during this workshop, and participants identified the need for improved cross-media communication among DEQ programs and among other programs (such as local pretreatment programs) as one of the most important means to achieve our goals of pollution prevention. The steering committee recommended that as we gain more experience in using the cross-media approach to problem-solving during the current field testing efforts for both the model and the permit forms, these tools will be re-evaluated and, if useful, assimilated into program implementation.

### Conclusions

The Oregon Cross-Media Risk Assessment Project is a first attempt to address the cross-media transfer of pollutants and qualitatively evaluate impacts to human health and the environment. The project has led to increased awareness among DEQ staff for the need to improve communication between staff, the regulated community and the public. The model provides us with a simple screening tool for comparing risks associated with different pollutant discharges and has broad applications both to DEQ and to the regulated community. As a new model, the process of validating and refining the model, as well as developing further applications, will extend beyond the formal completion of the project grant. There are a number of areas which can be refined and improved as new information becomes available. The report to EPA represents a milestone to satisfy a condition of the EPA grant; it is our hope that the methodology developed as part of this project will continue to be applied and tested within DEQ programs, and will serve as a starting point for other states who are interested in addressing similar concerns in their approach to environmental protection.

Memo To: Environmental Quality Commission  
Agenda Item E  
March 5, 1993 Meeting  
Page 7

**Department Recommendation**

It is recommended that the Commission accept this report, discuss the matter, and provide advice and guidance to the Department as appropriate. The "Oregon Cross-Media Risk Assessment Project: Final Report to EPA" will be submitted to EPA by March 31, 1993 as required by the grant.

**Attachments**

List of Cross-Media Advisory Committee and Cross-Media Steering Committee Members

**Reference Documents (available upon request)**

Oregon's Cross-Media Risk Assessment Project: Draft Final Report to EPA

Approved:

Section: \_\_\_\_\_

Division: Sam DePham

Report Prepared By: Marianne Fitzgerald

Phone: 229-5946

Date Prepared: February 16, 1993

/mef  
eqcstaff  
2/16/93

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY  
CROSS-MEDIA ADVISORY COMMITTEE

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Chair: James E. Petersen  
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Hubel, Hansen and Arnett  
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Duane Bolland 639-0817 (fax 624-8162)	Sierra Club Columbia Group 14777 S.W. 109th Avenue #2 Tigard, OR 97224
Floyd Collins 588-6008 (fax 588-6005)	OR-ACWA/League of Oregon Cities City of Salem Public Works Department 555 Liberty Street S.E. Salem, OR 97301
Deb Kirchwey 227-1600 (fax 227-6840)	Oregon Environmental Council Stoll, Stoll, Berne & Lokting 209 S.W. Oak Portland, OR 97204
Roseanne Lorenzana, DVM, PhD (206) 553-8002 (fax (206) 553-0119)	U.S. EPA Region 10 Health and Environmental Assessment Section 1200 Sixth Avenue, M/S ES-098 Seattle, Washington 98101
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OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY  
CROSS-MEDIA STEERING COMMITTEE

LIST OF MEMBERS

Air Quality Division:

David Berg, Program Operations Section  
Gregg Lande, Program Planning and Development Section  
Patrick Hanrahan, Technical Services Section

Water Quality Division:

Renato Dulay, Industrial and On-Site Waste Section  
Richard Nichols, Municipal Project Section  
Greg McMurray, Standards & Assessments Section  
Douglas Terra, GIS Specialist

Hazardous and Solid Waste Division:

David Rozell, Waste Reduction Assistance Program  
Audrey Eldridge, Solid Waste Permits and Compliance Section  
Ali Nikukar, Hazardous Waste Permits and Compliance Section

Environmental Cleanup Division:

Brooks Koenig, Program Planning and Development Section  
Regina Bridwell, Environmental Toxicologist  
William Dana, Site Response Section

Regional Operations Division:

Thomas Bispham, Administrator  
Marianne Fitzgerald, Cross-Media Project Coordinator

Management Services Division:

Howard Knytych, Information Systems Section

Note: Past members include Alan Hose, Laboratory Division; Rommel Rivera and Thomas Foster, Environmental Cleanup Division; Michael Renz, Hazardous and Solid Waste Division; and Jerry Turnbaugh and Eugene Foster, Water Quality Division.

February 16, 1993

Date: 3-22-93 2:51pm  
From: Beth Woodrow:MSD:DEQ  
To: Division Administrators:deq  
cc: Budget Office  
Subj: Tues. W&M cancelled

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We have now been pushed back to Wednesday, still 3:30 to 5:30.

Room H174 (I think that's next to "our" hearing room).

All DAS  
ERC  
EX-16 STAFF



MAR 05 1993

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
MAR 11 1993  
OFFICE OF THE DIRECTOR

Reply to  
Attn Of: HW-124

Fred Hansen, Director  
Oregon Department of Environmental Quality  
811 SW Sixth Avenue  
Portland, Oregon 97204

Dear Mr. Hansen: *Fred*

As you know, we have been working to define some new directions for Region 10 in the area of sustainable development. Since there is a continuing growth in the public focus on issues in this area (what it is, how do you "do" sustainable development, etc.), all are hoping to learn more about the implications of the transition toward sustainability that is taking place and find ways to foster and support it.

In January, we adopted a framework program to guide our efforts in this important area. A description of that program is enclosed for your information. It identifies the priority areas where we feel we have a role and can enhance progress over the next 2-3 years. The program components build on, and are complementary to, many of the priority themes and programs we are jointly working on with you. The framework is flexible so that as we learn more about this complex challenge, we can add or modify the program as needed.

I would appreciate it if you could circulate this to appropriate staff and managers within your agency. We will be glad to discuss the initiative in more detail with you as needed. Questions, comments, and suggestions are welcome. This is for us the beginning of a long-term effort in this area and continuing feedback will be essential for success.

Sincerely,

Dana A. Rasmussen,  
Regional Administrator

Enclosure

cc: Kenneth D. Brooks  
Oregon Operations Office

## REGION 10 SUSTAINABLE DEVELOPMENT INITIATIVE

The concept of sustainable development as a long-term goal is emerging as one of the major factors that will guide development and implementation of environmental protection programs in future years. EPA Region 10 has established an initiative in this area. There are several objectives for this effort. They are:

1. To establish EPA Region 10 as an active leader and participant in efforts within the Northwest to enhance sustainability.
2. To develop an understanding of sustainable development concepts and principles and how they relate to EPA's role and programs in the Northwest.
3. To develop a sustainable development program which will identify major areas of emphasis and provide a dynamic framework to guide Region 10 activities in this area.
4. To carry out a variety of projects which will address priority needs and which will help define how EPA can best enable progress in this area.
5. To be a resource and leader within EPA as the agency develops programs and initiatives in the sustainable development area.

To achieve these objectives, Region 10 has adopted a core sustainability program. It currently contains modules and projects in four areas: communities, geographic areas, business and industry, and the knowledge and information base. The framework of the plan is flexible and, as our experience and thinking in this area evolves, additional elements will be added to the program as appropriate. Following are a graphical representation and brief narrative descriptions of the program. For more detailed information on this initiative, contact the Region 10 Office of Environmental Sustainability at 206-553-1792.



Program Module:       **Communities**

Action

Incorporate a sustainable development focus into pilot projects for small community environmental planning.

Description

Region 10 will carry out, through its small communities program, some pilot projects to help selected small communities with integrated environmental planning and priority setting. These projects will enable pilot communities to use limited resources to address highest priorities first, and develop a long-term strategy to address all problems. They will involve application of risk-based and other planning approaches. The experience gained will help formulate a generic model process that small communities can use, independent of EPA resources, to develop their own integrated plans.

As these projects are developed and implemented, we will find appropriate ways to incorporate into the process an emphasis on sustainable development. This will involve integrating into planning and implementation both economic and environmental considerations at the same time. This approach will provide a framework for involving agencies with economic and community development responsibilities as partners in finding solutions to local environmental problems. It will also help identify barriers and opportunities within EPA programs related to working in this type of framework and process.

Program Module:       **Communities**

Action

Develop and implement a program to help communities develop an "infrastructure" of skills, tools, information, etc. that will enable progress toward sustainability.

Description

Currently there are no clear guidelines for how a community, of any size, establishes and implements a long-term focus on sustainability. It is clear that some new tools, skills, and approaches will be needed in areas such as environmental education, information use, policies, incentives, etc. In all these areas, and others, there is a need for improved processes and opportunities for networking and information transfer between those involved in grappling with these issues.

Region 10's work in this area will involve, initially, developing a better understanding of both resources and needs in this area. Lessons learned from the small community pilot projects, experiences in relating to the growth management programs, work in watersheds, etc. will provide input. Based on this ongoing determination of needs and opportunities, a longer-term agenda to address and help meet priority needs will be developed. This in turn will influence actions in other program modules (See Universities for example).

Program Module:      **Geographic Priority Areas**

Action

Develop a sustainable development project/program for the Middle Snake River area of southern Idaho.

Description

The water quality and ecological values in the middle reaches of the Snake River in the vicinity of Twin Falls, Idaho, are currently severely impacted by excessive nutrient loadings, flow modifications due to dams and withdrawals, industrial wastes, etc. At the same time, there are community plans for economic development, for increasing recreational use of the River, for an increase in the dairy industry, etc. Current public and private sector environmental protection efforts are focused primarily on gaining control of the excess nutrient problem. They do not at this point represent an integrated effort to achieve long-term economic and environmental sustainability.

In this project, Region 10 will explore ways that we can enable a stronger emphasis on long-term sustainability. Initial work will focus in three areas. These are: 1) developing a better base of information on resource use and environmental/economic ties, 2) serving as a catalyst for projects and processes that will increase the efficiency of waste utilization and energy use in the area, and 3) exploring with local leaders the possibility of a local "visioning" process to better define what needs to be sustained over the long term. Results from this work will help determine a strategy for next steps.

Program Module:      **Geographic Priority Areas**

Action

Identify one or more additional geographic areas as priorities for a sustainable development emphasis.

Description

EPA currently is placing a major priority on developing integrated, geographic approaches for addressing environmental problems. As part of these efforts EPA needs to figure out, for varying combinations of scale, problems, and institutional arrangements, how to enable a stronger focus on long-term sustainability in these areas. Within Region 10, a number of areas of varying size and complexity have been identified as priorities. The Region will identify one or more of these as areas for which programs to enhance sustainability will be developed.

Program Module:      **Business/Industry**

Action

Develop and implement long-term solutions to wood residue and other waste issues associated with wood products industry in northern Idaho.

Description

The integration of economic and ecological interests into long-term solutions representing a win-win situation for both is at the heart of making progress toward sustainability. There is a need to determine what kinds of institutional arrangements, communications process, data and information, etc. are necessary to achieve success in this area. There is also a need to understand how current environmental programs and regulations at federal, state, or local levels enable or hinder development of long-term, win-win solutions.

A pilot project involving the wood products industry waste issues in northern Idaho is being developed. Participants will include federal, state, and local agencies, wood products industry representatives, and university staff. Focus will be in three areas: technical (what technical issues need to be resolved to support economic use of waste products), regulatory (how does current regulatory framework help or hinder, what changes or flexibility needed, etc.), and product development (exploration of waste use options, potential markets, etc.) A steering committee will provide overall direction.

Program Module:      **Business/Industry**

Action

Develop and implement a program to increase the understanding and adoption of sustainability concepts by the business community in Region 10.

### Description

There is a growing body of information, guidelines, and examples addressing the application of sustainability concepts in the business world. The scope ranges from corporate accounting practices to planning for development of the sustainable corporation, processes for increasing stakeholder participation, focussing on total quality environmental management, the competitive advantage of operating in a manner consistent with sustainable development principles, etc. A wide gap still exists, however, between the conceptual development in this area and the active engagement of the overall business community in exploring and testing the application of these ideas. Helping to bridge that gap is the focus of this project.

Initial work on this project will include developing a network of individuals and companies within the business community that are sympathetic to the goals of this initiative, establishing a steering committee and/or some focus groups to get input, identifying the best opportunities for communication and information transfer, obtaining business community support (staff, funding), keeping current with growing inventory of materials in this area, etc. Based on the work in the areas described above, a longer term strategy will be developed.

Program Module:        **Knowledge and Information Base**

### Action

Develop processes and opportunities that will increase teaching and research within Northwest public and private universities on sustainability issues and needs.

### Description

Many researchers and departments in Northwest universities are beginning to focus more on the broad array of educational and research efforts to support the transition toward sustainability. Often, however, there is not a clearly defined set of needs and priorities that have been articulated by business, government, etc. Increasing the communication, priority and focus on research and training needs in the sustainability area will be the focus of work in this module.

Initial work will focus on increasing our understanding of capabilities and interests re sustainability within the Northwest university community. At the same time, opportunities for supporting/initiating conferences or workshops for university faculty and others on specific sustainability issues will be identified. Needs identified

through some of the other modules (ex. - geographic priorities, communities) may serve as a focal point. Focus groups, a steering committee, or other mechanisms for obtaining input and buy in will be explored and implemented as appropriate. After this period of initial work, a longer term strategy will be developed.

Program Module:           **Knowledge and Information Base**

Action

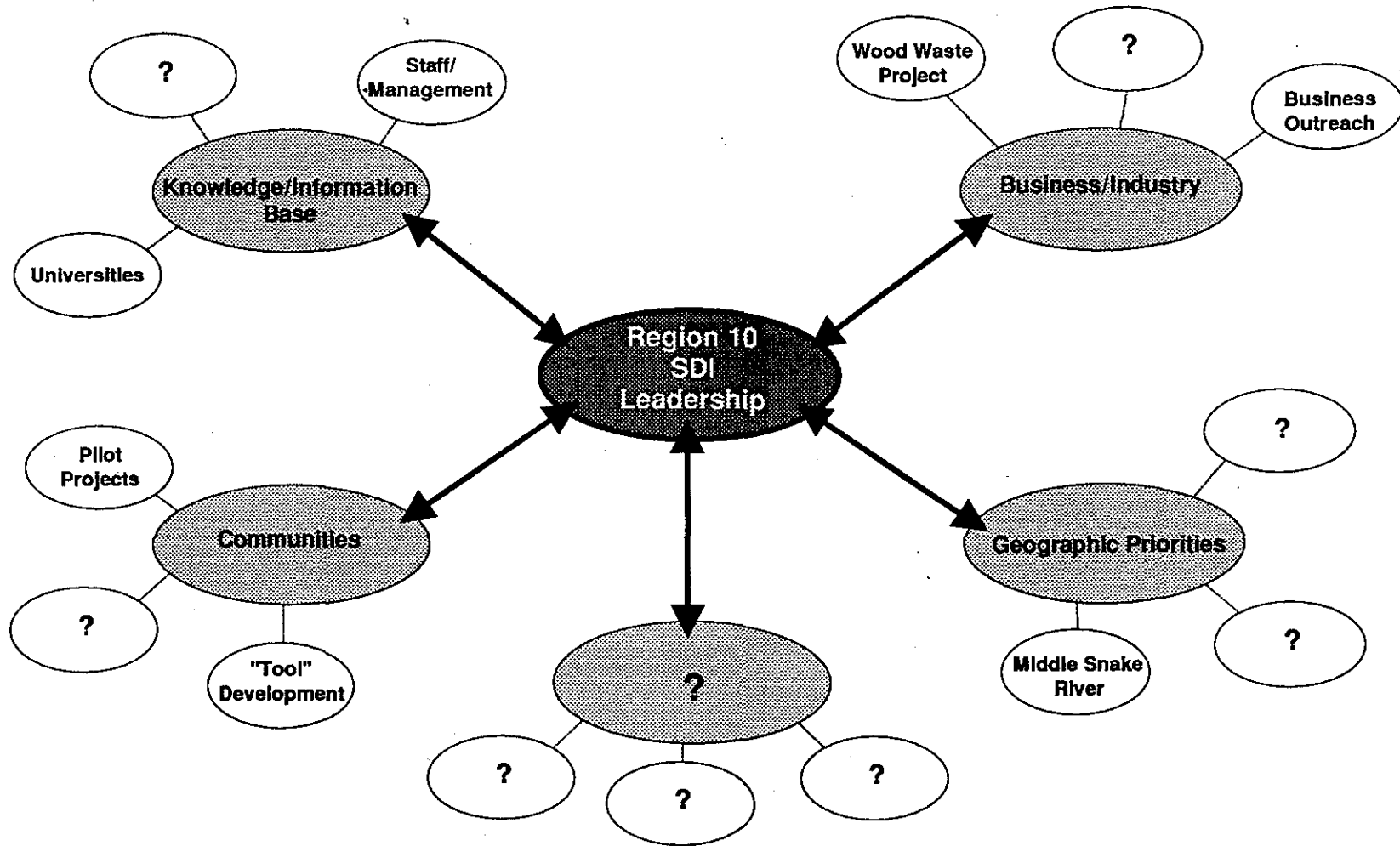
Increase the understanding of sustainability concepts, opportunities, and implications among Region 10 managers and staff.

Description

Making the concept of sustainable development real at the operational or practical level is a key challenge. There is increasing work in this area on many fronts. Experiments are being tried, a body of literature is developing, business is beginning to examine the implications and modify practices, communities are trying to figure out what it means to be sustainable, etc. For EPA Region 10 to be a relevant participant in the transition that is emerging, managers and staff need to keep abreast of the changing ideas and opportunities in this area.

Efforts in this module will proceed on several tracks. The monthly Sustainable Futures Forum will continue to bring in outside speakers on sustainability topics. Periodically, presentations and discussion of sustainability concepts and issues will be included in Executive and Management Team meeting agendas. Short term training opportunities in areas where skill development is needed will be identified and promoted. In this regard, a proposal will be developed to target a portion of the regional training budget for specific skill development needs. In the area of information distribution, a computer file of current articles and papers on sustainability issues will be established and made accessible through the LAN system. The Library is also developing a collection of sustainability materials.

# Region 10 Sustainable Development Initiative



*Minutes are not final until approved by the EQC*

## ENVIRONMENTAL QUALITY COMMISSION

Minutes of the Two Hundred and Twenty Sixth Meeting  
January 28-29, 1993

### Work Session - January 28, 1993

The Environmental Quality Commission work session was convened at about 1:05 p.m. on Thursday, January 28, 1993, in Conference Room 3A, Oregon Department of Environmental Quality (DEQ), 811 S. W. Sixth Avenue in Portland, Oregon. The following commission members were present:

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

Commissioner Carol Whipple was unable to attend the work session. Fred Hansen was appearing before the Ways and Means Committee in Salem and was unable to attend. Also present were Stephanie Hallock, Administrator of the Hazardous and Solid Waste Division, and other Division Administrators and DEQ staff.

#### 1. **Work Session: Presentation and Discussion of Findings on Wastewater Treatment Costs - A Case Study.**

Commissioner Castle introduced this item by noting that questions regarding comparison of municipal and industrial waste treatment requirements and costs had been raised when the Commission considered the request to grant a waste load allocation to the James River Recycle Plant at Halsey. An opportunity arose for an intern from the Department of Agricultural Resources Economics at Oregon State University to look at the issue. Brett Fried, a graduate student, and Dr. Dave Ervin, head of the Department of Agricultural Resources Economics, presented the results of their study.

The study compared the costs of construction and operation of wastewater treatment facilities for the City of Corvallis and James River Corporation Recycle Facility. Cost prediction models were available for municipal facilities and produced reasonable prediction of actual costs for Corvallis. No cost models were available for the industrial waste; comparison of the two facilities thus proved difficult.

The Commission indicated that the information presented helped to understand the potential relationships between treatment standards and costs of meeting those standards. The Commission thanked Mr. Fried and Dr. Ervin for their efforts and presentation.

**2. Work Session: Informal Discussion of Current Issues Affecting the Department.**

Chair Wessinger introduced the informal discussion. Commissioner Lorenzen indicated that he needed to know more about the activities of the Department, including what Department staff believes are the biggest problems facing the Department. The Commission complimented the staff on the information presented in staff reports on agenda items; however, the agenda items deal with selected issues and are not able to provide the more complete background that would be helpful to Commission members.

Brief presentations highlighting significant current issues were made by each of the divisions (Hazardous and Solid Waste, Air Quality, Water Quality, Environmental Cleanup, Regional Operations, and Laboratory). Questions and discussion followed each presentation.

The Commission expressed the desire for continuing this type of informal discussion at future meetings. They requested that Carolyn Young bring them up to date on activities in the Public Affairs section at the next meeting.

The work session was concluded and adjourned at about 4:05 p.m.

**Regular Meeting - January 29, 1993**

The Environmental Quality Commission regular meeting was convened at 8:30 a.m. on Friday, January 29, 1993, in Conference Room 3A, Oregon Department of Environmental Quality (DEQ), 811 S. W. Sixth Avenue in Portland, Oregon. The following commission members were present:

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



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

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

Chair Wessinger called the meeting to order.

**A. Approval of minutes.**

Commissioner Castle moved approval of the December 11, 1992, regular EQC meeting; Commissioner McMahan seconded the motion. The minutes were unanimously approved.

**B. Approval of tax credits.**

Chair Wessinger indicated the solid waste landfill tax credit application, TC-3443, Finley Buttes Landfill Company, would be held out as a separate item for consideration. Commissioner Castle moved approval of the remaining tax credits; Commission Whipple seconded the motion. The 12 tax credit applications listed below were unanimously approved.

Application Number	Applicant	Facility Description
TC-2133	Cascade Forest Products	Clark 57-20 baghouse and associated support equipment.
TC-3417	Fujitsu Microelectronics, Inc.	Packed bed aqueous scrubbers and activated carbon off-gas absorbers.
TC-3878	G & R Auto Wreckers, Inc.	RGF Ultrasorb Model SD-II closed loop oil/water separation and recycle system.

Application Number	Applicant	Facility Description
TC-3882	Polk County Farmers' Cooperative	Concrete wash pad with collection trough, package wastewater treatment system and building to house package system.
TC-3885	Lane International	Plastic granulator for reprocessing reclaimed plastic.
TC-3904	Veldon D. Kropf	198 foot by 124 foot by 22 foot pole construction, metal clad, grass seed straw storage shed.
TC-3914	United Disposal Service, Inc.	Collection depot including loading ramp, collection containers, oil collection facility, asphalt slab, storage and maintenance building, gate/house office, informational signs and security camera system.
TC-3915	William J. Stellmacher	Freeman 370T baler and John Deere 2955 tractor.
TC-3917	C & E Curtis Enterprises Inc.	Auto air conditioning recycling machine.
TC-3920	Aaltonen & James, Inc.	Auto air conditioning recycling machine.
TC-3921	Action Auto & Radiator	Auto air conditioning recycling machine.
TC-3925	R & R Automotive, Inc.	Auto air conditioning recycling machine.

Commissioner Lorenzen indicated he would vote no on TC-3443 as he has done for similar past applications. Commissioner Whipple said in order to maintain consistency, she would approve the tax credit application subject to her previous concerns of the past.

Commission Whipple moved approval of TC-3443, Finley Buttes Landfill Company, for landfill liners and leachate collection system for two landfill cells, leachate evaporation pond and five monitoring wells. Commissioner Castle seconded the motion. Chair Wessinger, Commissioners Whipple, McMahan and Castle voted yes; Commissioner Lorenzen voted no.

Agenda items C-1 and C-2 were introduced and discussed jointly.

**C-1. Pulp Mill Contested Case: Consideration of Agreement Regarding Enforceability of Dioxin and Other Provisions of the Order that are not Subject to Reconsideration.**

In October 1992, the City of St. Helens, Boise Cascade Corporation and James River II, Inc., petitioned the Court of Appeals for judicial review of the dioxin-related provisions of the April 16, 1992, EQC order in the pulp mill contested case. A second order dated August 10, 1992, granted reconsideration of portions of the April 16, 1992, order related to organochlorines other than dioxin, as measured by AOX, including but not limited to determination of the best available technology (BAT) for controlling discharges. The purpose of the agreement proposed in this agenda item was to clarify the original intent and provide assurance that the dioxin provisions of the April 16, 1992, order are in effect now even though judicial review of those provisions may await resolution of the AOX issue.

**C-2. Pulp Mill Contested Case: Petition for Withdrawal of Order Granting Reconsideration.**

In December 1992, John Bonine, Western Environmental Law Clinic, filed with the Commission on behalf of the Northwest Coalition for Alternatives to Pesticides and Columbia River United a petition for withdrawal of the August 10, 1992, reconsideration order. The Department notified Mr. Bonine the petition would not be considered at the December 11 EQC meeting, that it would be referred to legal counsel for advice on statutory requirements governing consideration and that it would be considered at a meeting after December 11. This agenda item presents this petition for Commission consideration.

Director Hansen introduced item C-1 by noting the proposed agreement between the mills and Commission does not change policy direction established in July when the decision was made to reconsider the AOX provisions of the April order; it articulates the intent and understanding that the dioxin related provisions of the April 16 order would be in effect and implemented while the Commission reconsidered the AOX

provisions. Michael Huston, Assistant Attorney General, noted that items C-1 and C-2 are alternative approaches for clarifying that TCDD limits of the Commission's April 16, 1992, Order are enforceable. Mr. Huston provided the Commission with a brief background and discussion of the legal issues that prompt the agreement as a means of clarification. In regard to agenda item C-1, Mr. Huston said the agreement committed the mills and city to comply with all permit conditions except those related to AOX. Additionally, the agreement acknowledges the mills and city have a right to review by the Court of Appeals of the Commission's final order. He noted the mills had signed the proposed agreement.

In response to a question from Commissioner Lorenzen, Mr. Huston replied the mills have signed the agreement, and it was the state's position the mills would be subject to enforcement action if they are found to be in non-compliance. Commissioner Lorenzen asked for clarification on whether it could be considered a partial final order and the issue of a stay. Mr. Huston replied the Administrative Procedures Act contemplates only one order on a case; therefore, the court would be expected to conclude the order is not final until the AOX reconsideration is completed. With regard to a stay, he noted the mills have not requested a stay, and they would have to make such a request to the Commission first.

Commissioner Castle suggested wording changes to paragraph 14 to better clarify the matter related to a stay:

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

Richard Williams, attorney for James River, Michael Campbell attorney for Boise Cascade, and John Bonine, representing Northwest Coalition for Alternatives to Pesticides and Columbia River United, spoke to the Commission about Agenda Items C-1 and C-2.

Mr. Williams said the TCDD limits were clearly enforceable. He indicated that James River did not want the TCDD provision of the order reviewed by the court now but they wanted to preserve that option. Mr. Campbell stated he agreed with Mr. Williams; he said the order was not final but was enforceable.

Mr. Bonine said the mills and city definitely want to preserve the right to request a stay. He indicated they can obtain the stay from the Court if it is not given by the Commission. Mr. Bonine indicated the mills have the right to stop the process. Commissioner Lorenzen asked if the Commission could vacate the order granting reconsideration. Mr. Huston responded the Commission could do so at any time.

Commissioner Castle moved that Agenda Item C-1, approval of the proposed Stipulation and Agreement, with Commissioner Castle's revision to paragraph 14 as previously noted, be approved; Commissioner Lorenzen seconded the motion. The motion was unanimously approved.

Commissioner Lorenzen moved that the petition for withdrawal of reconsideration (agenda item C-2) be denied; Commissioner Whipple seconded the motion. The motion was unanimously approved.

### **C-3. Petition for Rulemaking filed by Columbia River United**

On January 21, 1993, Columbia River United filed a petition for rulemaking with the Environmental Quality Commission. The petition sought adoption of a rule which would require every pulp mill to: 1) meet a monthly average discharge limit of 1.5 kg AOX/ADMT of pulp produced as soon as feasible but no later than June 1, 1993; and 2) eliminate the discharge of organochlorines as soon as feasible but not later than January 31, 1996, through the use of totally chlorine-free technology. Rules regarding petitions for rulemaking require the Commission to either deny the petition or initiate rulemaking within 30 days of receipt of the petition.

Director Hansen provided background information about agenda item C-3. Mr. Huston indicated the Commission needed to take action on this item today.

John Bonine, representing Columbia River United, urged the Commission to begin the rulemaking process now as a means of exploring the information that is available on chlorine-free pulp production processes.

Commissioner McMahan asked about the Department's position on the petition. Director Hansen indicated he believed it was premature to proceed with the rulemaking process until the Commission completes the AOX reconsideration in the contested case; however, if the petition seemed appealing, the Commission could have information gathered and brought before them, determine the progress of the mills and then consider rulemaking.

Commissioner Castle moved that the petition for rulemaking filed by Columbia River United (agenda item C-3) be denied; Commissioner Whipple seconded the motion. The motion was unanimously approved.

Commissioner Whipple noted that denying the petition at this time did not eliminate any future rulemaking; Commissioner McMahan agreed. Commissioner Castle said timing was the issue, and he would be following the matter very closely.

**D. Proposed Adoption of Temporary Rule Amendments to the Pollution Control Tax Credit Rules.**

This item proposed immediate adoption of temporary rule amendments that will change the return on investment and percent allocable evaluation procedures for tax credit applicant where pollution control facilities are integral to the operation of the applicant's business. The Commission had previously determined the existing rule does not adequately allow the Department and Commission to consider the portion of a facility cost properly allocable to pollution control as specified in the statute. A hearing has been scheduled for considering these proposed amendments as permanent rule amendments.

Director Hansen provided a brief summary of the item. Chair Wessinger asked the status of the rules in regard to the legislature. Director Hansen replied the legislature could amend the statute to nullify the Commission's proposal. Chair Wessinger also asked if the temporary rules affected field burning. Director Hansen said that tax credits would still be available for field burning. Commissioner Lorenzen asked if the temporary rules applied to liner systems required for gold mining operations; Director Hansen replied yes. John Fink of the Department staff responded that a specific determination has not been made at this time. Commissioner Lorenzen stated his view that the entire liner system is integral to the operation of the gold mining business. Director Hansen said that an argument could perhaps be made that the primary liner was integral in that its purpose was to recover gold. The Department has not made a determination as to whether the secondary liner system is integral or a pollution control facility. Commissioner Castle indicated his view that whatever was necessary to comply with the gold mining rules was by definition integral to the business.

Commissioner Lorenzen moved the Commission adopt the proposed temporary rule amendments to the pollution control tax credit rules as presented in Attachment A of the staff report together with the Findings of Need for a temporary rule as presented in the staff report; Commissioner Castle seconded the motion. The motion was unanimously approved.

**E. Status Report on the Total Maximum Daily Load (TMDL) Program.**

This agenda item presented a status report on the 1987 Consent Decree and the status of the Department's efforts to establish TMDL's. The Department recommended that the Commission accept the report.

Neil Mullane, Water Quality Division, presented this agenda item to the Commission. Mr. Mullane, described the status of the total maximum daily load (TMDL) program. The program was initiated when a lawsuit was brought by the Northwest Environmental Defense Center (NEDC) against the U.S. Environmental Protection Agency over Oregon's failure to implement a TMDL program on water quality limited streams(WQLS). This suit was followed by a second notice of intent to sue which identified a series of waterbodies suspected of being WQLS. The parties of the suit signed a settlement decree specifying the actions each party had to perform.

The Department developed a TMDL program designed to meet the requirements of the settlement. The program consists of five elements including: 1) initial data assessment and establishment of preliminary loading capacity; 2) detailed water quality assessments with data evaluation and stream modeling; 3) establishment of TMDLs, waste load allocations (WLAs), and load allocations (LAs); 4) submittal of TMDLs/WLAs/LAs to EPA; and 5) implementation and compliance evaluation.

Mr. Mullane described the number of river basins involved in the TMDL program. These include those WQLS segments identified in the original suit and second notice and those streams identified in subsequent biennial water quality status assessments (305b reports). The state has identified 15 waterbodies as needing TMDLs, within these waterbodies there are 40 WQLS segments needing TMDLs on 51 specific parameters.

The state has submitted 27 final TMDLs and 7 draft TMDLs to the EPA; 17 TMDLs still need to be developed. The Department is currently working on the Grande Ronde River. Work will begin on the Umatilla River during 1993, and work remains on the Coast Fork Willamette, Klamath and South Umpqua rivers.

The Department has made tremendous progress in implementing the TMDL program and meeting the consent decree requirements with a program shift from a technology based permit to a water quality based program. Mr. Mullane also pointed out that not all WQLS are as complex as others. The Department has, therefore, developed a three-tiered TMDL development program to reflect the relative increase in problem complexity. He also stated that when the program started the federal commitment for the first two-year period was approximately \$900,000 with the state committing \$300,000. Over the last two years the state has committed over \$1 million with the federal government committing only \$400,000. Mr. Mullane also stated that approximately 70 percent of these funds are used in basins where the TMDLs/WLAs/LAs have already been established. This highlighted the continual need to work on TMDLs even in areas where they have been established. This also illustrated the growing problem of having sufficient funds to start new TMDL efforts in new basins.

As a final note, Mr. Mullane pointed out that although the program started out specifically directed at WQLS segments, it had been integrated into the Department's overall program with a water quality based program approach being used on several other permitting actions.

Karl Anuta, attorney, representing the Northwest Environmental Defense Center (NEDC was one of the original litigants in the suit brought against EPA) spoke on his belief that the Department was doing a good job but that it needed to do better. He did not feel the Department was making adequate progress in meeting the consent decree requirement of two TMDLs per year. He said that in order to fulfill the intent of the lawsuit settlement agreement that much more needed to be completed. There were also concerns regarding the approach the Department was using to determine the number of TMDLs and WQLS segments. Mr. Anuta indicated the consent decree did not intend for the Department to count each separate parameter TMDL as a single TMDL but that all TMDLs developed on a waterbody was one TMDL. He also said the settlement decree in the Washington law suit was a far more progressive TMDL program that would soon surpass Oregon. Mr. Anuta stated the Department's current program failed to consider the impact that general permits had on the waterbody.

Mr. Mullane indicated significant progress had been made to meet the consent decree. He also pointed out that a TMDL program is an iterative program designed to identify and address all sources contributing to the problem but that source identification is made over time with action taken as sources are identified.



In response to Mr. Anuta's comments on general permits, Mr. Mullane stated that it was inappropriate to assume that all general permits contribute to a specific TMDL problem. He described the Department's process to examine and identify for a specific waterbody all contributing sources and if they include general permits, then specific waste load allocations would be developed.

Chair Wessinger asked how the program compared to others around the country. Mr. Mullane indicated that DEQ had developed and were implementing a leading program and that EPA had developed a national TMDL guidance manual based on the Oregon experience. Mr. Hansen pointed out that several other states were now being asked to develop TMDLs including Washington and Alaska.

Commissioner Lorenzen asked about the timetable for completing the wasteload allocation study. Director Hansen replied this would be an issue to be discussed by Mr. Huston and that perhaps an executive session may be needed.

The Commission accepted the Department's report by consensus.

**F. Report on Tualatin Basin Nonpoint Source Control Program Implementation and Compliance Dates.**

This agenda item reported on the status of efforts to establish non-point source control programs in the Tualatin Basin. The Department recommended the Commission discuss the report and provide guidance to the Department regarding preferred options for proceeding with pollution control efforts in the Tualatin subbasin after the June 30, 1993, TMDL compliance date and discuss any rule changes that may need to be developed.

Andy Schaedel and Mitch Wolgamott of the Water Quality Division provided a brief summary of the staff report and supplied an informational handout.

Karl Anuta told the Commission that critical elements were missing from the staff report. He suggested that compliance dates should not be changed and that compliance should be enforced. Mr. Anuta said the NEDC believed the Tualatin River Basin was improving but that the Department had met resistance by other state agencies involved.

Commissioner Lorenzen asked about the improvements made so far. Mr. Schaedel replied that Confined Animal Feedlot Operations (CAFOs), container nurseries procedures and some forestry activities improvements had produced a positive effect on the Tualatin River Basin. Mr. Anuta responded that he has yet to see Forestry and Agriculture implement anything. Mr. Schaedel noted that progress is being made even though it is not as fast as the Department would like.

Commissioner Whipple asked if people had "bought in" to the program; Mr. Schaedel responded that some had. Commissioner Castle indicated that this program was not just a matter of setting compliance dates. He said that a great deal could be gained by learning and educating the public and agencies.

Director Hansen stated that unless the Commission directed otherwise, the Department would continue on its current course as outlined in the report to try to move the program forward on several fronts. By consensus, the Commission supported this approach.

## **PUBLIC FORUM**

No one appeared at Public Forum. Director Hansen recognized former EQC Chair Jim Peterson who was in the audience. Mr. Peterson is serving as Chair of the Advisory Committee for the Cross-Media project and will be reporting to the Commission at the next meeting.

### **G. Request by Mapleton Commercial Area Owners Association for Waiver or Reduction in Water Quality Annual Compliance Determination Fee.**

The Mapleton Commercial Area Owners Association has asked the Commission for a waiver or reduction in the annual compliance determination fee they must pay. Rules allow the Commission to reduce or suspend the fee if a hardship is found to exist. The Department evaluated the matter and recommended the Commission suspend the annual compliance determination fee for the Mapleton Commercial Area Owners Association of fiscal year 1992-93 and for subsequent fiscal years until such time as the system users have paid off their loans used to finance the local share of the capital costs. It was further recommended the Commission direct staff to prepare a proposed amendment to the annual compliance determination fee schedule (OAR 340-45-075(4)) such that Mapleton would pay the same annual compliance fee as systems now included in Category F. A change in classification would reduce the Mapleton Commercial Area Owners Association annual compliance determination fee from \$1,035 to about \$465.

Commissioner Lorenzen moved approval of the waiver as recommended in the staff report; Commissioner Whipple seconded the motion. The motion was unanimously approved.

**H. Withdrawn.**

**I. Approval of Resolution for Sale of Pollution Control Bonds.**

This item seeks Commission approval of authorization to issue and sell \$85 million in Pollution Control Bonds. The proceeds would be used to: 1) fund the purchase of special assessment bonds from the Cities of Portland and Gresham to implement the Mid-Multnomah County Sewer Project; 2) fund the required 20 percent match for federal funds that are deposited in the State Revolving Fund; and 3) retire Series 1977 bonds that carry a higher interest rate than the current bonds would (and result in an interest savings of approximately \$5 million). The Department recommended the Commission authorize the issuance of bonds by adopting the resolution as presented in Attachment A of the staff report together with the supporting findings presented in the staff report as conclusions.

Commissioner Castle moved approval of the Department recommendation; Commissioner Lorenzen seconded the motion. The motion was unanimously approved.

**J. Rule Adoption: Proposed Housekeeping Amendments to OAR Chapter 340, Divisions 13, 14 and 20 through 34.**

This agenda item presented extensive housekeeping amendments to the air quality rules and recommended the Commission adopt the amendments as presented in Attachment A of the staff report. For rules which are currently part of the State Implementation Plan (SIP) (as identified by a footnote to that effect under each applicable rule), the amendments are adopted as revisions to Oregon's SIP.

Commissioner Lorenzen moved approval of the proposed rule amendments as presented; Commissioner Castle seconded the motion. The motion was unanimously approved.

**K. Report to the Legislature: Status of Underground Storage Tank Financial Assistance Program (Section 62 of Senate Bill 1215).**

Senate Bill 1215 established an enhanced financial assistance program for owners/operators of underground storage tanks holding motor fuel for resale. This legislation requires the Department to report on the implementation of the program at the beginning of each biennial legislative session. This agenda item presents the January 1993 report and recommends the Commission approve the report's distribution to the 67th Legislative Assembly.

Richard Reiter, Hazardous and Solid Waste Division, spoke to the Commission about the Supreme Court decision which invalidated the preferred funding mechanism for the program. He also discussed the Oregon House Energy and Environment Subcommittee work group that is seeking other ways to salvage the program. Director Hansen provided a brief history of the financial assistance program.

Chair Wessinger asked Mr. Reiter how much the Department would have to be given back as a result of the Court decision. Mr. Reiter replied that \$3.8 million would be given back. Commissioner Lorenzen asked about the funds remaining. Director Hansen said that technical assistance and program development were being provided by that funding. Commissioner Whipple said that she was still seeing a lot of tank replacement activity. She asked if the funding was still needed. Mr. Reiter indicated that 677 notices of intent to apply for a loan had been filed.

Director Hansen said the legislature has a strong desire to find replacement revenue for this program. He said that the cardlock (self-service in special settings) may get wrapped up in it, however. Commissioner Lorenzen asked how many were hanging on waiting for the program. Mr. Reiter stated that all but the major oil companies were waiting.

The Commission took no action and, by consensus, supported the Department recommendation to submit the report to the legislature.

**L. Report to the Legislature: Fourth Annual Environmental Cleanup Report.**

The Department is required to submit an annual report to the legislature, Governor, and Commission outlining the environmental cleanup program accomplishments during the previous fiscal year and its goals for the current fiscal year. This item presents the Department's proposed report and seeks Commission approval for submittal to the legislature.

Mary Wahl, Acting Administrator for the Environmental Cleanup Division, was available for questions from the Commission. The program was discussed at the previous day's work session. Commissioner Whipple asked if the decrease in the number of drug lab cleanups indicated drug lab operations were decreasing. Ms. Wahl indicated no; the labs are more difficult to locate because the chemicals now being used produce less odor, that different manufacturing techniques are being used, and that more drug labs are operating in rural areas.

The Commission took no specific action and, by consensus, concurred in submittal of the report to the legislature.

**M. Report to the Legislature: Sewage Treatment Works Operator Certification Program.**

Legislation passed in 1987 requires the Department (jointly with the Health Division) to submit a biennial report to the legislature on the Operation Certification Program. This item presents the Department's portion of that report with the recommendation that the Commission review the draft report, provide guidance for modifications if deemed appropriate and approve submittal of the final report to the Legislature.

Barbara Burton of the Water Quality Division indicated that the Certification Program was going well and was operating in a maintenance mode.

The Commission took no specific action and, by consensus, concurred in submittal of the report to the legislature.

**N. Periodic Rule Review.**

State agencies are required to review their administrative rules every three years for the purpose of determining whether rules should be amended, rescinded, or retained without change. The emphasis of the review is upon minimizing the economic effect of rules upon business. This agenda item summarizes the result of the Department's internal review as well as public comment. DEQ solicited comments from over 7,000 individuals on agency mailing lists and received 24 responses. The Department recommended the Commission accept the rule review reports as presented in the staff report and attachments.

Peter Dalke and Elana Stampfer, Office of the Director, were present to answer questions. Commissioner Lorenzen asked how an issue such as the absolute nature of the temperature standard can be addressed. He indicated there is a need for some kind of escape language. Commissioner Castle called attention to the fact that it is difficult to change a rule after a problem surfaces in the context of a decision. He said flexibility was needed to allow for adjustment based on specific findings.

Mr. Huston indicated it may be possible to achieve some flexibility under state law but that it may be more difficult under federal law. He stated he would prepare a draft paper on options for rule flexibility.

The Commission accepted the report by consensus and took no further action.

**O. Commission Members Reports.**

Commissioner McMahan said she had been asked to serve on the committee that will make recommendations to the Oregon Community Foundation on uses for the funds set aside under the Unified Sewerage Agency consent decree. She indicated the committee would be exploring ways to provide education about river improvements.

**NOTE:** Agenda Item Q was considered before Agenda Item P.

**Q. Status Report on Legislative Proposals.**

Olivia Clark, Assistant to the Director, provided information on the legislative committees that will be considering environmental bills and provided a brief legislative update for the Commission as follows:

- Environmental Crimes (Senate Bill 88) is in the Senate Judiciary Committee.
- Wellhead Protection (House Bill 2149) is in the Water Subcommittee. The Committee will appoint a work group to examine the issues of this bill.
- Pollution Tax Credit (House Bill 2071) is being reviewed by the Revenue Committee. The committee will be examining all tax credit related legislation at one time.

**P. Director's Report.**

- Fuel Processors: Fuel Processors, Inc., a used oil recycling facility in Portland, was assessed the largest civil penalty ever issued by the Department, \$548,244 for 61 hazardous waste violations. With the assistance of Oregon State Police and Multnomah County District Attorney's office, DEQ obtained a criminal search warrant to search Fuel Processors' facility. The Department documented that Fuel Processors was receiving hazardous waste for treatment, storage or disposal (TSD) without first obtaining a permit. Included in the penalty amount was a \$102,244 economic benefit assessment which Fuel Processors gained by failing to apply for and obtain a TSD permit.
- League of Cities Meeting: A joint DEQ/League of Oregon Cities (LOC) early warning team had its first meeting in January. This group was formed to foster a better working relationship with local governments and to prevent escalation of problems before they evolve into major issues. The team will continue to meet on a regular basis.
- Miscellaneous:
  - The Board of Forestry Chair has asked that Director Hansen and State Forester Brown meet to discuss riparian rules. Director Hansen suggested that Chair Wessinger and Commissioner Castle may want to also attend this meeting. No meeting date has been set.
  - Director Hansen asked for comments on the order of the meeting agenda which placed informational report Agenda Items E and F early in the meeting rather than at the end where they tend to receive less emphasis. The Commission commented that it was appropriate to spend time earlier in the meeting on those specific items because they were important. Chair Wessinger said he would like to have fewer

items on the agenda so that more in-depth discussion and suggested the possibility of a consent agenda to include routine items. Commissioner Castle indicated he appreciated the requirement to take action on each item because being forced to vote on the motion made it necessary to learn about the issues.

- Director Hansen asked for observations about the work session held on the previous day. Chair Wessinger and Commissioner Castle replied that they both benefited a great deal from the work session. Commissioner Lorenzen also expressed satisfaction from the session because it helped him to understand what is happening at the agency. The Commission asked to have Carolyn Young, Public Affairs Manager, provide a DEQ informational report at the next such work session and periodically after that.

There was no further business, and the meeting was adjourned at about 2:00 p.m.



General File 6-1-2-000

November 16, 1992

DEPARTMENT OF FORESTRY

STATE FORESTERS OFFICE

Fred Hansen, Director  
Department of Environmental Quality  
811 SW 6th Avenue  
Portland, OR 97204



"STEWARDSHIP IN FORESTRY"

Dear Fred:

OAR 629-24-104 under the Forest Practices Act requires the State Forester to meet annually with other state agencies concerned with the forest environment to review the Forest Practice Rules relative to sufficiency. The State Forester then makes a report to the Board of Forestry.

As an annual practice, individual agency directors and their staffs are invited to meet with the Department of Forestry staff to discuss any concerns about the Forest Practices Program, the sufficiency of the rules, and the adequacy of coordination between the respective agencies. This discussion may include any suggestions or specific recommendations for new rules, rule amendment, or repeal of rules.

I look forward to meeting with you to discuss the Forest Practices Program and ask that you let me know when such a meeting would be most convenient. To schedule a meeting, please call Cinda Boatwright, Executive Secretary, at 378-2510.

If you believe that a meeting is not necessary, I would appreciate a brief letter to that effect for our files. We would appreciate hearing from you by December 16, 1992.

If you cannot personally attend, please consider sending an  $\frac{1}{2}$  DAY authorized representative in your place.

Sincerely,

*Jim Brown*  
James E. Brown  
State Forester

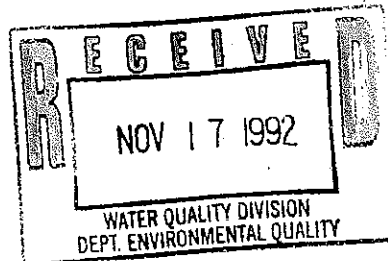
*not April 12*  
*not April 7-8*  
*March 31*

STANDARDS  
CLASSIFICATION RGL  
MONITORING  
WATER SHEET  
APPROACH

JEB:na

cc: Lydia R. Taylor  
Fred Robinson  
Charlie Stone  
Cinda Boatwright

*3/17*  
*not 3/24*  
*4/7*



2600 State Street  
Salem, OR 97310  
(503) 378-2560

*945-7200*

Environmental Quality Commission Minutes  
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January 28-29, 1993

provisions. Michael Huston, Assistant Attorney General, noted that items C-1 and C-2 are alternative approaches for clarifying that TCDD limits of the Commission's April 16, 1992, Order are enforceable. Mr. Huston provided the Commission with a brief background and discussion of the legal issues that prompt the agreement as a means of clarification. In regard to agenda item C-1, Mr. Huston said the agreement committed the mills and city to comply with all permit conditions except those related to AOX. Additionally, the agreement acknowledges the mills and city have a right to review by the Court of Appeals of the Commission's final order. He noted the mills had signed the proposed agreement.

In response to a question from Commissioner Lorenzen, Mr. Huston replied the mills have signed the agreement, and it was the state's position the mills would be subject to enforcement action if they are found to be in non-compliance. Commissioner Lorenzen asked for clarification on whether it could be considered a partial final order and the issue of a stay. Mr. Huston replied the Administrative Procedures Act contemplates only one order on a case; therefore, the court would be expected to conclude the order is not final until the AOX reconsideration is completed. With regard to a stay, he noted the mills have not requested a stay, and they would have to make such a request to the Commission first.

Commissioner Castle suggested wording changes to paragraph 14 to better clarify the matter related to a stay:

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

Richard Williams, attorney for James River, Michael Campbell attorney for Boise Cascade, and John Bonine, representing Northwest Coalition for Alternatives to Pesticides and Columbia River United, spoke to the Commission about Agenda Items C-1 and C-2.

Mr. Williams said the TCDD limits were clearly enforceable. He indicated that James River did not want the TCDD provision of the order reviewed by the court now but they wanted to preserve that option. Mr. Campbell stated he agreed with Mr. Williams; he said the order was not final but was enforceable.

All DAs  
EQC  
EXCL STAFF



MAR 05 1993

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAR 11 1993

Reply to  
Attn Of: HW-124

Fred Hansen, Director  
Oregon Department of Environmental Quality  
811 SW Sixth Avenue  
Portland, Oregon 97204

OFFICE OF THE DIRECTOR

Dear Mr. <sup>Fred</sup>Hansen:

As you know, we have been working to define some new directions for Region 10 in the area of sustainable development. Since there is a continuing growth in the public focus on issues in this area (what it is, how do you "do" sustainable development, etc.), all are hoping to learn more about the implications of the transition toward sustainability that is taking place and find ways to foster and support it.

In January, we adopted a framework program to guide our efforts in this important area. A description of that program is enclosed for your information. It identifies the priority areas where we feel we have a role and can enhance progress over the next 2-3 years. The program components build on, and are complementary to, many of the priority themes and programs we are jointly working on with you. The framework is flexible so that as we learn more about this complex challenge, we can add or modify the program as needed.

I would appreciate it if you could circulate this to appropriate staff and managers within your agency. We will be glad to discuss the initiative in more detail with you as needed. Questions, comments, and suggestions are welcome. This is for us the beginning of a long-term effort in this area and continuing feedback will be essential for success.

Sincerely,

Dana A. Rasmussen,  
Regional Administrator

Enclosure

cc: Kenneth D. Brooks  
Oregon Operations Office

## REGION 10 SUSTAINABLE DEVELOPMENT INITIATIVE

The concept of sustainable development as a long-term goal is emerging as one of the major factors that will guide development and implementation of environmental protection programs in future years. EPA Region 10 has established an initiative in this area. There are several objectives for this effort. They are:

1. To establish EPA Region 10 as an active leader and participant in efforts within the Northwest to enhance sustainability.
2. To develop an understanding of sustainable development concepts and principles and how they relate to EPA's role and programs in the Northwest.
3. To develop a sustainable development program which will identify major areas of emphasis and provide a dynamic framework to guide Region 10 activities in this area.
4. To carry out a variety of projects which will address priority needs and which will help define how EPA can best enable progress in this area.
5. To be a resource and leader within EPA as the agency develops programs and initiatives in the sustainable development area.

To achieve these objectives, Region 10 has adopted a core sustainability program. It currently contains modules and projects in four areas: communities, geographic areas, business and industry, and the knowledge and information base. The framework of the plan is flexible and, as our experience and thinking in this area evolves, additional elements will be added to the program as appropriate. Following are a graphical representation and brief narrative descriptions of the program. For more detailed information on this initiative, contact the Region 10 Office of Environmental Sustainability at 206-553-1792.

Program Module:       **Communities**

Action

Incorporate a sustainable development focus into pilot projects for small community environmental planning.

Description

Region 10 will carry out, through its small communities program, some pilot projects to help selected small communities with integrated environmental planning and priority setting. These projects will enable pilot communities to use limited resources to address highest priorities first, and develop a long-term strategy to address all problems. They will involve application of risk-based and other planning approaches. The experience gained will help formulate a generic model process that small communities can use, independent of EPA resources, to develop their own integrated plans.

As these projects are developed and implemented, we will find appropriate ways to incorporate into the process an emphasis on sustainable development. This will involve integrating into planning and implementation both economic and environmental considerations at the same time. This approach will provide a framework for involving agencies with economic and community development responsibilities as partners in finding solutions to local environmental problems. It will also help identify barriers and opportunities within EPA programs related to working in this type of framework and process.

Program Module:       **Communities**

Action

Develop and implement a program to help communities develop an "infrastructure" of skills, tools, information, etc. that will enable progress toward sustainability.

Description

Currently there are no clear guidelines for how a community, of any size, establishes and implements a long-term focus on sustainability. It is clear that some new tools, skills, and approaches will be needed in areas such as environmental education, information use, policies, incentives, etc. In all these areas, and others, there is a need for improved processes and opportunities for networking and information transfer between those involved in grappling with these issues.

Region 10's work in this area will involve, initially, developing a better understanding of both resources and needs in this area. Lessons learned from the small community pilot projects, experiences in relating to the growth management programs, work in watersheds, etc. will provide input. Based on this ongoing determination of needs and opportunities, a longer-term agenda to address and help meet priority needs will be developed. This in turn will influence actions in other program modules (See Universities for example).

Program Module:      **Geographic Priority Areas**

Action

Develop a sustainable development project/program for the Middle Snake River area of southern Idaho.

Description

The water quality and ecological values in the middle reaches of the Snake River in the vicinity of Twin Falls, Idaho, are currently severely impacted by excessive nutrient loadings, flow modifications due to dams and withdrawals, industrial wastes, etc. At the same time, there are community plans for economic development, for increasing recreational use of the River, for an increase in the dairy industry, etc. Current public and private sector environmental protection efforts are focused primarily on gaining control of the excess nutrient problem. They do not at this point represent an integrated effort to achieve long-term economic and environmental sustainability.

In this project, Region 10 will explore ways that we can enable a stronger emphasis on long-term sustainability. Initial work will focus in three areas. These are: 1) developing a better base of information on resource use and environmental/economic ties, 2) serving as a catalyst for projects and processes that will increase the efficiency of waste utilization and energy use in the area, and 3) exploring with local leaders the possibility of a local "visioning" process to better define what needs to be sustained over the long term. Results from this work will help determine a strategy for next steps.

Program Module:      **Geographic Priority Areas**

Action

Identify one or more additional geographic areas as priorities for a sustainable development emphasis.

### Description

EPA currently is placing a major priority on developing integrated, geographic approaches for addressing environmental problems. As part of these efforts EPA needs to figure out, for varying combinations of scale, problems, and institutional arrangements, how to enable a stronger focus on long-term sustainability in these areas. Within Region 10, a number of areas of varying size and complexity have been identified as priorities. The Region will identify one or more of these as areas for which programs to enhance sustainability will be developed.

Program Module:      **Business/Industry**

### Action

Develop and implement long-term solutions to wood residue and other waste issues associated with wood products industry in northern Idaho.

### Description

The integration of economic and ecological interests into long-term solutions representing a win-win situation for both is at the heart of making progress toward sustainability. There is a need to determine what kinds of institutional arrangements, communications process, data and information, etc. are necessary to achieve success in this area. There is also a need to understand how current environmental programs and regulations at federal, state, or local levels enable or hinder development of long-term, win-win solutions.

A pilot project involving the wood products industry waste issues in northern Idaho is being developed. Participants will include federal, state, and local agencies, wood products industry representatives, and university staff. Focus will be in three areas: technical (what technical issues need to be resolved to support economic use of waste products), regulatory (how does current regulatory framework help or hinder, what changes or flexibility needed, etc.), and product development (exploration of waste use options, potential markets, etc.) A steering committee will provide overall direction.

Program Module:      **Business/Industry**

### Action

Develop and implement a program to increase the understanding and adoption of sustainability concepts by the business community in Region 10.

### Description

There is a growing body of information, guidelines, and examples addressing the application of sustainability concepts in the business world. The scope ranges from corporate accounting practices to planning for development of the sustainable corporation, processes for increasing stakeholder participation, focussing on total quality environmental management, the competitive advantage of operating in a manner consistent with sustainable development principles, etc. A wide gap still exists, however, between the conceptual development in this area and the active engagement of the overall business community in exploring and testing the application of these ideas. Helping to bridge that gap is the focus of this project.

Initial work on this project will include developing a network of individuals and companies within the business community that are sympathetic to the goals of this initiative, establishing a steering committee and/or some focus groups to get input, identifying the best opportunities for communication and information transfer, obtaining business community support (staff, funding), keeping current with growing inventory of materials in this area, etc. Based on the work in the areas described above, a longer term strategy will be developed.

Program Module:      **Knowledge and Information Base**

### Action

Develop processes and opportunities that will increase teaching and research within Northwest public and private universities on sustainability issues and needs.

### Description

Many researchers and departments in Northwest universities are beginning to focus more on the broad array of educational and research efforts to support the transition toward sustainability. Often, however, there is not a clearly defined set of needs and priorities that have been articulated by business, government, etc. Increasing the communication, priority and focus on research and training needs in the sustainability area will be the focus of work in this module.

Initial work will focus on increasing our understanding of capabilities and interests re sustainability within the Northwest university community. At the same time, opportunities for supporting/initiating conferences or workshops for university faculty and others on specific sustainability issues will be identified. Needs identified



through some of the other modules (ex. - geographic priorities, communities) may serve as a focal point. Focus groups, a steering committee, or other mechanisms for obtaining input and buy in will be explored and implemented as appropriate. After this period of initial work, a longer term strategy will be developed.

Program Module:           **Knowledge and Information Base**

Action

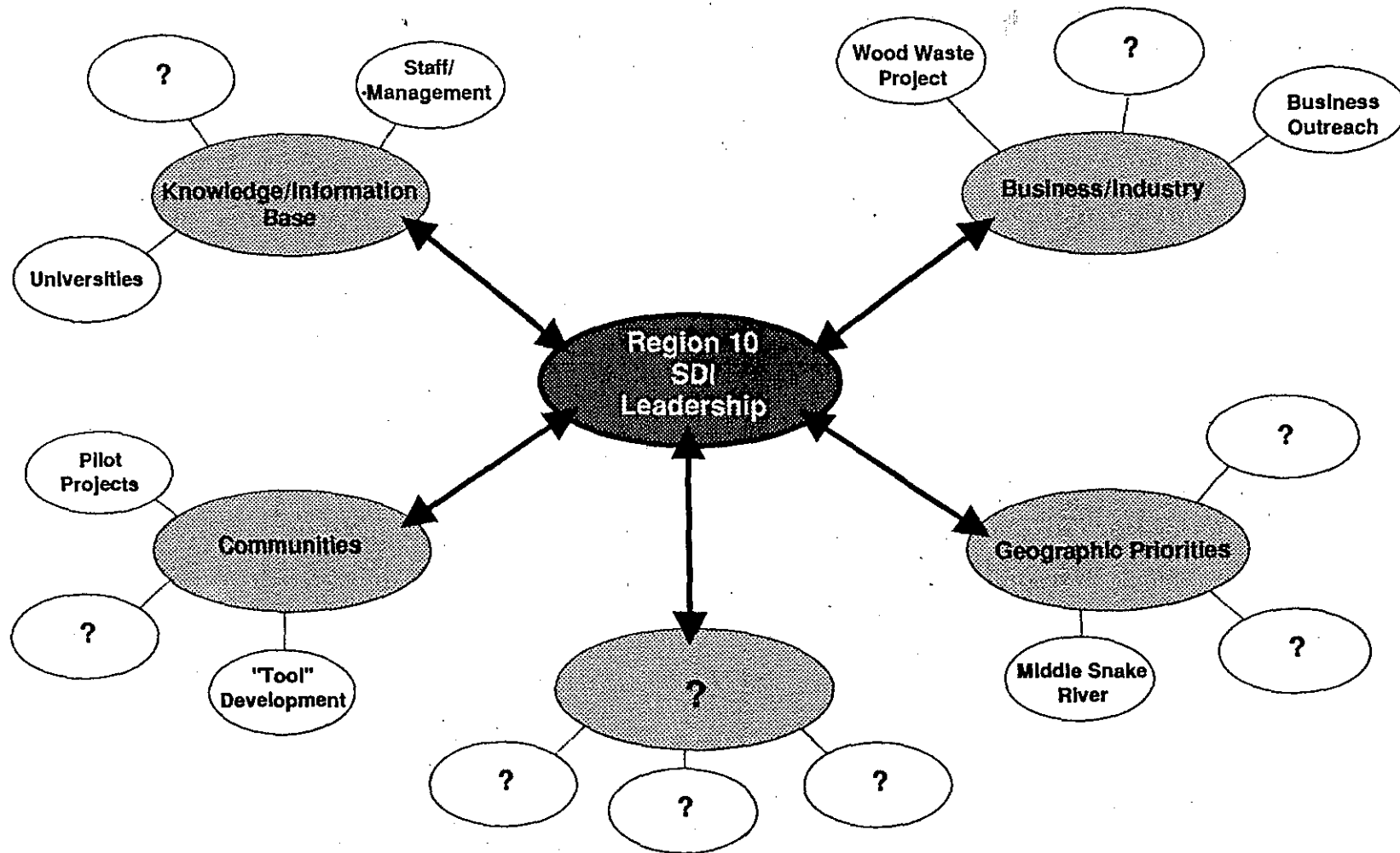
Increase the understanding of sustainability concepts, opportunities, and implications among Region 10 managers and staff.

Description

Making the concept of sustainable development real at the operational or practical level is a key challenge. There is increasing work in this area on many fronts. Experiments are being tried, a body of literature is developing, business is beginning to examine the implications and modify practices, communities are trying to figure out what it means to be sustainable, etc. For EPA Region 10 to be a relevant participant in the transition that is emerging, managers and staff need to keep abreast of the changing ideas and opportunities in this area.

Efforts in this module will proceed on several tracks. The monthly Sustainable Futures Forum will continue to bring in outside speakers on sustainability topics. Periodically, presentations and discussion of sustainability concepts and issues will be included in Executive and Management Team meeting agendas. Short term training opportunities in areas where skill development is needed will be identified and promoted. In this regard, a proposal will be developed to target a portion of the regional training budget for specific skill development needs. In the area of information distribution, a computer file of current articles and papers on sustainability issues will be established and made accessible through the LAN system. The Library is also developing a collection of sustainability materials.

# Region 10 Sustainable Development Initiative



All DAS  
ERC  
EXCL. STAFF



MAR 05 1993

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAR 11 1993

Reply to  
Attn Of: HW-124

Fred Hansen, Director  
Oregon Department of Environmental Quality  
811 SW Sixth Avenue  
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OFFICE OF THE DIRECTOR

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In January, we adopted a framework program to guide our efforts in this important area. A description of that program is enclosed for your information. It identifies the priority areas where we feel we have a role and can enhance progress over the next 2-3 years. The program components build on, and are complementary to, many of the priority themes and programs we are jointly working on with you. The framework is flexible so that as we learn more about this complex challenge, we can add or modify the program as needed.

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Sincerely,

Dana A. Rasmussen,  
Regional Administrator

Enclosure

cc: Kenneth D. Brooks  
Oregon Operations Office

## REGION 10 SUSTAINABLE DEVELOPMENT INITIATIVE

The concept of sustainable development as a long-term goal is emerging as one of the major factors that will guide development and implementation of environmental protection programs in future years. EPA Region 10 has established an initiative in this area. There are several objectives for this effort. They are:

1. To establish EPA Region 10 as an active leader and participant in efforts within the Northwest to enhance sustainability.
2. To develop an understanding of sustainable development concepts and principles and how they relate to EPA's role and programs in the Northwest.
3. To develop a sustainable development program which will identify major areas of emphasis and provide a dynamic framework to guide Region 10 activities in this area.
4. To carry out a variety of projects which will address priority needs and which will help define how EPA can best enable progress in this area.
5. To be a resource and leader within EPA as the agency develops programs and initiatives in the sustainable development area.

To achieve these objectives, Region 10 has adopted a core sustainability program. It currently contains modules and projects in four areas: communities, geographic areas, business and industry, and the knowledge and information base. The framework of the plan is flexible and, as our experience and thinking in this area evolves, additional elements will be added to the program as appropriate. Following are a graphical representation and brief narrative descriptions of the program. For more detailed information on this initiative, contact the Region 10 Office of Environmental Sustainability at 206-553-1792.

Program Module:       **Communities**

Action

Incorporate a sustainable development focus into pilot projects for small community environmental planning.

Description

Region 10 will carry out, through its small communities program, some pilot projects to help selected small communities with integrated environmental planning and priority setting. These projects will enable pilot communities to use limited resources to address highest priorities first, and develop a long-term strategy to address all problems. They will involve application of risk-based and other planning approaches. The experience gained will help formulate a generic model process that small communities can use, independent of EPA resources, to develop their own integrated plans.

As these projects are developed and implemented, we will find appropriate ways to incorporate into the process an emphasis on sustainable development. This will involve integrating into planning and implementation both economic and environmental considerations at the same time. This approach will provide a framework for involving agencies with economic and community development responsibilities as partners in finding solutions to local environmental problems. It will also help identify barriers and opportunities within EPA programs related to working in this type of framework and process.

Program Module:       **Communities**

Action

Develop and implement a program to help communities develop an "infrastructure" of skills, tools, information, etc. that will enable progress toward sustainability.

Description

Currently there are no clear guidelines for how a community, of any size, establishes and implements a long-term focus on sustainability. It is clear that some new tools, skills, and approaches will be needed in areas such as environmental education, information use, policies, incentives, etc. In all these areas, and others, there is a need for improved processes and opportunities for networking and information transfer between those involved in grappling with these issues.

Region 10's work in this area will involve, initially, developing a better understanding of both resources and needs in this area. Lessons learned from the small community pilot projects, experiences in relating to the growth management programs, work in watersheds, etc. will provide input. Based on this ongoing determination of needs and opportunities, a longer-term agenda to address and help meet priority needs will be developed. This in turn will influence actions in other program modules (See Universities for example).

Program Module:      **Geographic Priority Areas**

Action

Develop a sustainable development project/program for the Middle Snake River area of southern Idaho.

Description

The water quality and ecological values in the middle reaches of the Snake River in the vicinity of Twin Falls, Idaho, are currently severely impacted by excessive nutrient loadings, flow modifications due to dams and withdrawals, industrial wastes, etc. At the same time, there are community plans for economic development, for increasing recreational use of the River, for an increase in the dairy industry, etc. Current public and private sector environmental protection efforts are focused primarily on gaining control of the excess nutrient problem. They do not at this point represent an integrated effort to achieve long-term economic and environmental sustainability.

In this project, Region 10 will explore ways that we can enable a stronger emphasis on long-term sustainability. Initial work will focus in three areas. These are: 1) developing a better base of information on resource use and environmental/economic ties, 2) serving as a catalyst for projects and processes that will increase the efficiency of waste utilization and energy use in the area, and 3) exploring with local leaders the possibility of a local "visioning" process to better define what needs to be sustained over the long term. Results from this work will help determine a strategy for next steps.

Program Module:      **Geographic Priority Areas**

Action

Identify one or more additional geographic areas as priorities for a sustainable development emphasis.

### Description

EPA currently is placing a major priority on developing integrated, geographic approaches for addressing environmental problems. As part of these efforts EPA needs to figure out, for varying combinations of scale, problems, and institutional arrangements, how to enable a stronger focus on long-term sustainability in these areas. Within Region 10, a number of areas of varying size and complexity have been identified as priorities. The Region will identify one or more of these as areas for which programs to enhance sustainability will be developed.

Program Module:        **Business/Industry**

### Action

Develop and implement long-term solutions to wood residue and other waste issues associated with wood products industry in northern Idaho.

### Description

The integration of economic and ecological interests into long-term solutions representing a win-win situation for both is at the heart of making progress toward sustainability. There is a need to determine what kinds of institutional arrangements, communications process, data and information, etc. are necessary to achieve success in this area. There is also a need to understand how current environmental programs and regulations at federal, state, or local levels enable or hinder development of long-term, win-win solutions.

A pilot project involving the wood products industry waste issues in northern Idaho is being developed. Participants will include federal, state, and local agencies, wood products industry representatives, and university staff. Focus will be in three areas: technical (what technical issues need to be resolved to support economic use of waste products), regulatory (how does current regulatory framework help or hinder, what changes or flexibility needed, etc.), and product development (exploration of waste use options, potential markets, etc.) A steering committee will provide overall direction.

Program Module:        **Business/Industry**

### Action

Develop and implement a program to increase the understanding and adoption of sustainability concepts by the business community in Region 10.

### Description

There is a growing body of information, guidelines, and examples addressing the application of sustainability concepts in the business world. The scope ranges from corporate accounting practices to planning for development of the sustainable corporation, processes for increasing stakeholder participation, focussing on total quality environmental management, the competitive advantage of operating in a manner consistent with sustainable development principles, etc. A wide gap still exists, however, between the conceptual development in this area and the active engagement of the overall business community in exploring and testing the application of these ideas. Helping to bridge that gap is the focus of this project.

Initial work on this project will include developing a network of individuals and companies within the business community that are sympathetic to the goals of this initiative, establishing a steering committee and/or some focus groups to get input, identifying the best opportunities for communication and information transfer, obtaining business community support (staff, funding), keeping current with growing inventory of materials in this area, etc. Based on the work in the areas described above, a longer term strategy will be developed.

Program Module:        **Knowledge and Information Base**

### Action

Develop processes and opportunities that will increase teaching and research within Northwest public and private universities on sustainability issues and needs.

### Description

Many researchers and departments in Northwest universities are beginning to focus more on the broad array of educational and research efforts to support the transition toward sustainability. Often, however, there is not a clearly defined set of needs and priorities that have been articulated by business, government, etc. Increasing the communication, priority and focus on research and training needs in the sustainability area will be the focus of work in this module.

Initial work will focus on increasing our understanding of capabilities and interests re sustainability within the Northwest university community. At the same time, opportunities for supporting/initiating conferences or workshops for university faculty and others on specific sustainability issues will be identified. Needs identified



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**Program Module:        Knowledge and Information Base**

**Action**

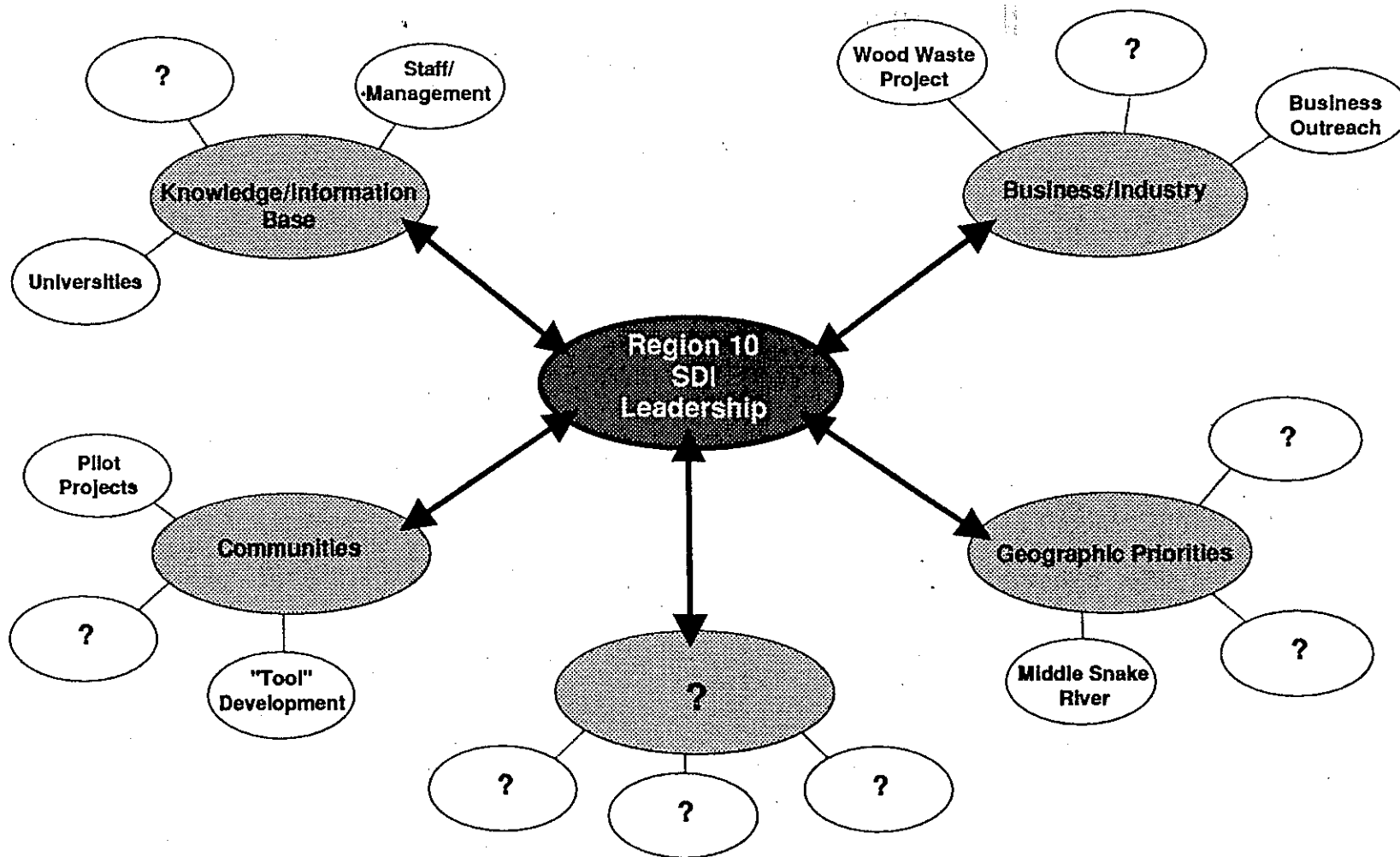
Increase the understanding of sustainability concepts, opportunities, and implications among Region 10 managers and staff.

**Description**

Making the concept of sustainable development real at the operational or practical level is a key challenge. There is increasing work in this area on many fronts. Experiments are being tried, a body of literature is developing, business is beginning to examine the implications and modify practices, communities are trying to figure out what it means to be sustainable, etc. For EPA Region 10 to be a relevant participant in the transition that is emerging, managers and staff need to keep abreast of the changing ideas and opportunities in this area.

Efforts in this module will proceed on several tracks. The monthly Sustainable Futures Forum will continue to bring in outside speakers on sustainability topics. Periodically, presentations and discussion of sustainability concepts and issues will be included in Executive and Management Team meeting agendas. Short term training opportunities in areas where skill development is needed will be identified and promoted. In this regard, a proposal will be developed to target a portion of the regional training budget for specific skill development needs. In the area of information distribution, a computer file of current articles and papers on sustainability issues will be established and made accessible through the LAN system. The Library is also developing a collection of sustainability materials.

# Region 10 Sustainable Development Initiative



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EXPL. STAFF



MAR 05 1993

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

RECEIVED  
MAR 11 1993

Reply to  
Attn Of: HW-124

Fred Hansen, Director  
Oregon Department of Environmental Quality  
811 SW Sixth Avenue  
Portland, Oregon 97204

OFFICE OF THE DIRECTOR

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Action

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Program Module:       **Communities**

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Develop and implement a program to help communities develop an "infrastructure" of skills, tools, information, etc. that will enable progress toward sustainability.

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Program Module:      **Geographic Priority Areas**

Action

Develop a sustainable development project/program for the Middle Snake River area of southern Idaho.

Description

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Program Module:      **Geographic Priority Areas**

Action

Identify one or more additional geographic areas as priorities for a sustainable development emphasis.

Description

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Program Module:      **Knowledge and Information Base**

### Action

Develop processes and opportunities that will increase teaching and research within Northwest public and private universities on sustainability issues and needs.

### Description

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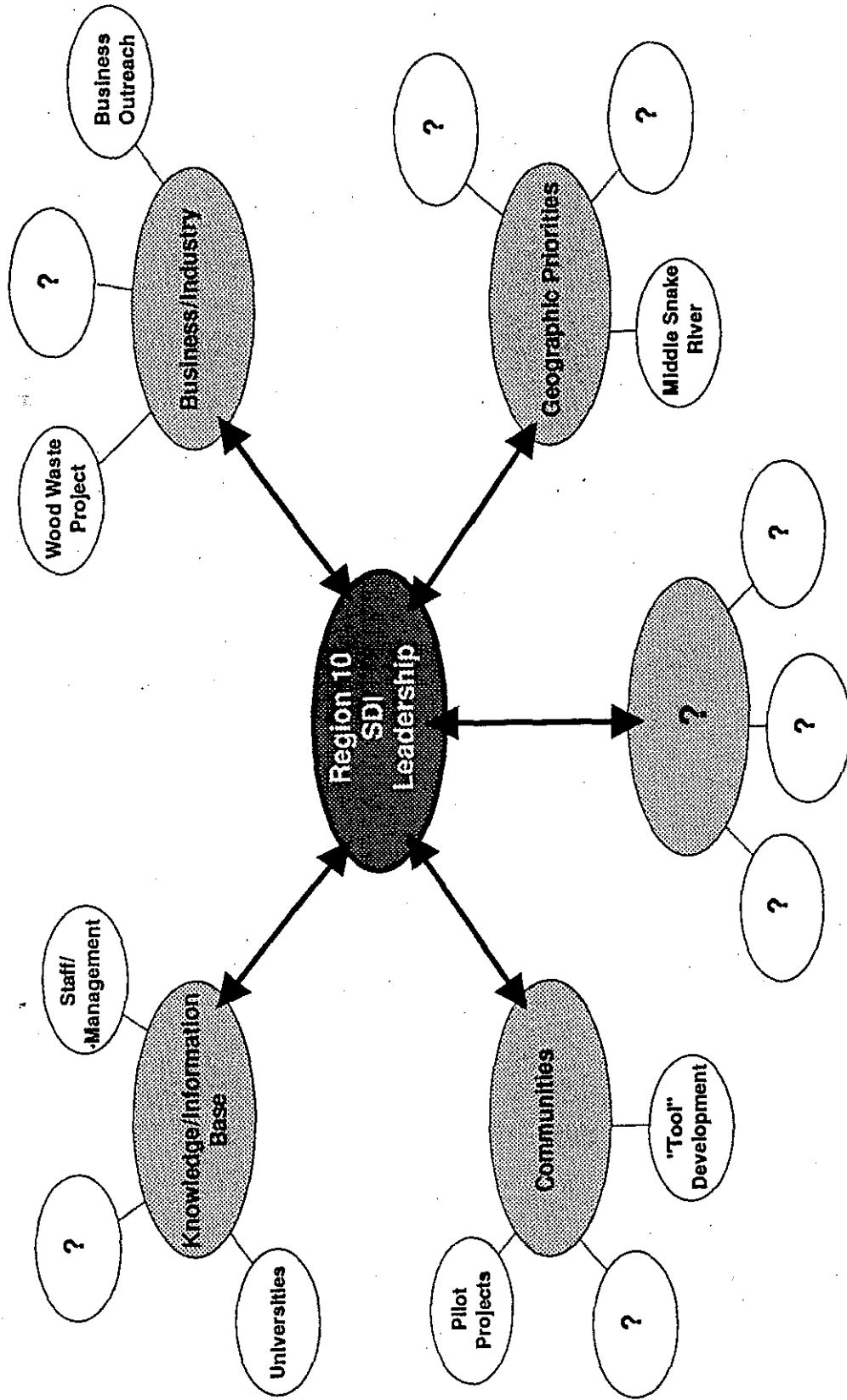
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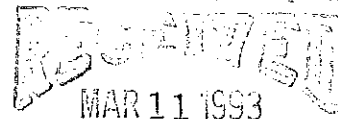


All DAS  
ECC  
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MAR 05 1993

State of Oregon  
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Program Module:      **Geographic Priority Areas**

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Program Module:      **Geographic Priority Areas**

Action

Identify one or more additional geographic areas as priorities for a sustainable development emphasis.

Description

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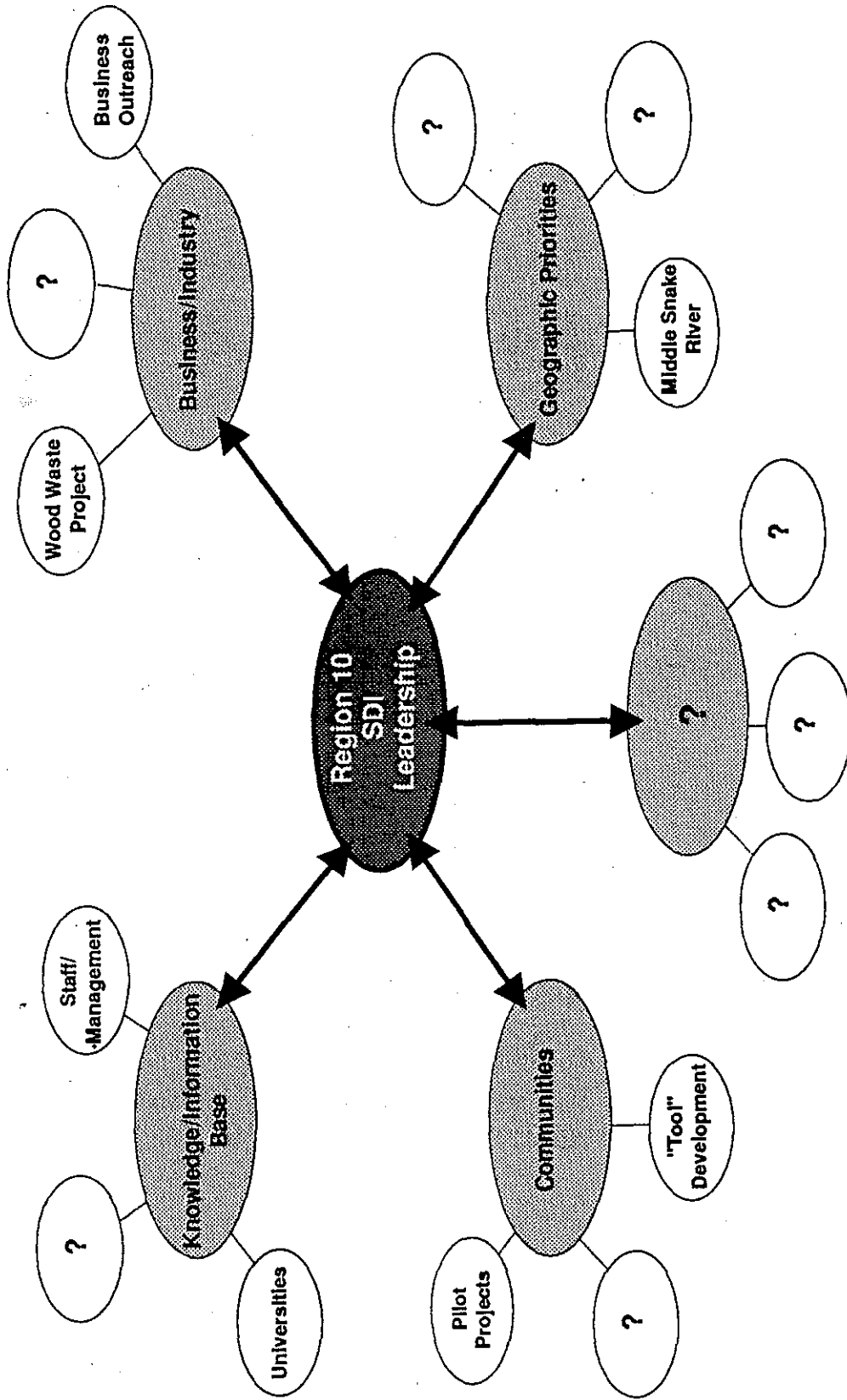
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Efforts in this module will proceed on several tracks. The monthly Sustainable Futures Forum will continue to bring in outside speakers on sustainability topics. Periodically, presentations and discussion of sustainability concepts and issues will be included in Executive and Management Team meeting agendas. Short term training opportunities in areas where skill development is needed will be identified and promoted. In this regard, a proposal will be developed to target a portion of the regional training budget for specific skill development needs. In the area of information distribution, a computer file of current articles and papers on sustainability issues will be established and made accessible through the LAN system. The Library is also developing a collection of sustainability materials.

# Region 10 Sustainable Development Initiative



All DAS  
EQC  
Exec. Staff



MAR 05 1993

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

MAR 11 1993

Reply to  
Attn Of: HW-124

Fred Hansen, Director  
Oregon Department of Environmental Quality  
811 SW Sixth Avenue  
Portland, Oregon 97204

OFFICE OF THE DIRECTOR

Dear Mr. Hansen:

As you know, we have been working to define some new directions for Region 10 in the area of sustainable development. Since there is a continuing growth in the public focus on issues in this area (what it is, how do you "do" sustainable development, etc.), all are hoping to learn more about the implications of the transition toward sustainability that is taking place and find ways to foster and support it.

In January, we adopted a framework program to guide our efforts in this important area. A description of that program is enclosed for your information. It identifies the priority areas where we feel we have a role and can enhance progress over the next 2-3 years. The program components build on, and are complementary to, many of the priority themes and programs we are jointly working on with you. The framework is flexible so that as we learn more about this complex challenge, we can add or modify the program as needed.

I would appreciate it if you could circulate this to appropriate staff and managers within your agency. We will be glad to discuss the initiative in more detail with you as needed. Questions, comments, and suggestions are welcome. This is for us the beginning of a long-term effort in this area and continuing feedback will be essential for success.

Sincerely,

*Dana*

Dana A. Rasmussen,  
Regional Administrator

Enclosure

cc: Kenneth D. Brooks  
Oregon Operations Office

## REGION 10 SUSTAINABLE DEVELOPMENT INITIATIVE

The concept of sustainable development as a long-term goal is emerging as one of the major factors that will guide development and implementation of environmental protection programs in future years. EPA Region 10 has established an initiative in this area. There are several objectives for this effort. They are:

1. To establish EPA Region 10 as an active leader and participant in efforts within the Northwest to enhance sustainability.
2. To develop an understanding of sustainable development concepts and principles and how they relate to EPA's role and programs in the Northwest.
3. To develop a sustainable development program which will identify major areas of emphasis and provide a dynamic framework to guide Region 10 activities in this area.
4. To carry out a variety of projects which will address priority needs and which will help define how EPA can best enable progress in this area.
5. To be a resource and leader within EPA as the agency develops programs and initiatives in the sustainable development area.

To achieve these objectives, Region 10 has adopted a core sustainability program. It currently contains modules and projects in four areas: communities, geographic areas, business and industry, and the knowledge and information base. The framework of the plan is flexible and, as our experience and thinking in this area evolves, additional elements will be added to the program as appropriate. Following are a graphical representation and brief narrative descriptions of the program. For more detailed information on this initiative, contact the Region 10 Office of Environmental Sustainability at 206-553-1792.

Program Module:       **Communities**

Action

Incorporate a sustainable development focus into pilot projects for small community environmental planning.

Description

Region 10 will carry out, through its small communities program, some pilot projects to help selected small communities with integrated environmental planning and priority setting. These projects will enable pilot communities to use limited resources to address highest priorities first, and develop a long-term strategy to address all problems. They will involve application of risk-based and other planning approaches. The experience gained will help formulate a generic model process that small communities can use, independent of EPA resources, to develop their own integrated plans.

As these projects are developed and implemented, we will find appropriate ways to incorporate into the process an emphasis on sustainable development. This will involve integrating into planning and implementation both economic and environmental considerations at the same time. This approach will provide a framework for involving agencies with economic and community development responsibilities as partners in finding solutions to local environmental problems. It will also help identify barriers and opportunities within EPA programs related to working in this type of framework and process.

Program Module:       **Communities**

Action

Develop and implement a program to help communities develop an "infrastructure" of skills, tools, information, etc. that will enable progress toward sustainability.

Description

Currently there are no clear guidelines for how a community, of any size, establishes and implements a long-term focus on sustainability. It is clear that some new tools, skills, and approaches will be needed in areas such as environmental education, information use, policies, incentives, etc. In all these areas, and others, there is a need for improved processes and opportunities for networking and information transfer between those involved in grappling with these issues.

Region 10's work in this area will involve, initially, developing a better understanding of both resources and needs in this area. Lessons learned from the small community pilot projects, experiences in relating to the growth management programs, work in watersheds, etc. will provide input. Based on this ongoing determination of needs and opportunities, a longer-term agenda to address and help meet priority needs will be developed. This in turn will influence actions in other program modules (See Universities for example).

Program Module:      **Geographic Priority Areas**

Action

Develop a sustainable development project/program for the Middle Snake River area of southern Idaho.

Description

The water quality and ecological values in the middle reaches of the Snake River in the vicinity of Twin Falls, Idaho, are currently severely impacted by excessive nutrient loadings, flow modifications due to dams and withdrawals, industrial wastes, etc. At the same time, there are community plans for economic development, for increasing recreational use of the River, for an increase in the dairy industry, etc. Current public and private sector environmental protection efforts are focused primarily on gaining control of the excess nutrient problem. They do not at this point represent an integrated effort to achieve long-term economic and environmental sustainability.

In this project, Region 10 will explore ways that we can enable a stronger emphasis on long-term sustainability. Initial work will focus in three areas. These are: 1) developing a better base of information on resource use and environmental/economic ties, 2) serving as a catalyst for projects and processes that will increase the efficiency of waste utilization and energy use in the area, and 3) exploring with local leaders the possibility of a local "visioning" process to better define what needs to be sustained over the long term. Results from this work will help determine a strategy for next steps.

Program Module:      **Geographic Priority Areas**

Action

Identify one or more additional geographic areas as priorities for a sustainable development emphasis.

Description

EPA currently is placing a major priority on developing integrated, geographic approaches for addressing environmental problems. As part of these efforts EPA needs to figure out, for varying combinations of scale, problems, and institutional arrangements, how to enable a stronger focus on long-term sustainability in these areas. Within Region 10, a number of areas of varying size and complexity have been identified as priorities. The Region will identify one or more of these as areas for which programs to enhance sustainability will be developed.

Program Module:        **Business/Industry**

Action

Develop and implement long-term solutions to wood residue and other waste issues associated with wood products industry in northern Idaho.

Description

The integration of economic and ecological interests into long-term solutions representing a win-win situation for both is at the heart of making progress toward sustainability. There is a need to determine what kinds of institutional arrangements, communications process, data and information, etc. are necessary to achieve success in this area. There is also a need to understand how current environmental programs and regulations at federal, state, or local levels enable or hinder development of long-term, win-win solutions.

A pilot project involving the wood products industry waste issues in northern Idaho is being developed. Participants will include federal, state, and local agencies, wood products industry representatives, and university staff. Focus will be in three areas: technical (what technical issues need to be resolved to support economic use of waste products), regulatory (how does current regulatory framework help or hinder, what changes or flexibility needed, etc.), and product development (exploration of waste use options, potential markets, etc.) A steering committee will provide overall direction.

Program Module:        **Business/Industry**

Action

Develop and implement a program to increase the understanding and adoption of sustainability concepts by the business community in Region 10.

### Description

There is a growing body of information, guidelines, and examples addressing the application of sustainability concepts in the business world. The scope ranges from corporate accounting practices to planning for development of the sustainable corporation, processes for increasing stakeholder participation, focussing on total quality environmental management, the competitive advantage of operating in a manner consistent with sustainable development principles, etc. A wide gap still exists, however, between the conceptual development in this area and the active engagement of the overall business community in exploring and testing the application of these ideas. Helping to bridge that gap is the focus of this project.

Initial work on this project will include developing a network of individuals and companies within the business community that are sympathetic to the goals of this initiative, establishing a steering committee and/or some focus groups to get input, identifying the best opportunities for communication and information transfer, obtaining business community support (staff, funding), keeping current with growing inventory of materials in this area, etc. Based on the work in the areas described above, a longer term strategy will be developed.

Program Module:        **Knowledge and Information Base**

### Action

Develop processes and opportunities that will increase teaching and research within Northwest public and private universities on sustainability issues and needs.

### Description

Many researchers and departments in Northwest universities are beginning to focus more on the broad array of educational and research efforts to support the transition toward sustainability. Often, however, there is not a clearly defined set of needs and priorities that have been articulated by business, government, etc. Increasing the communication, priority and focus on research and training needs in the sustainability area will be the focus of work in this module.

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Program Module:            **Knowledge and Information Base**

Action

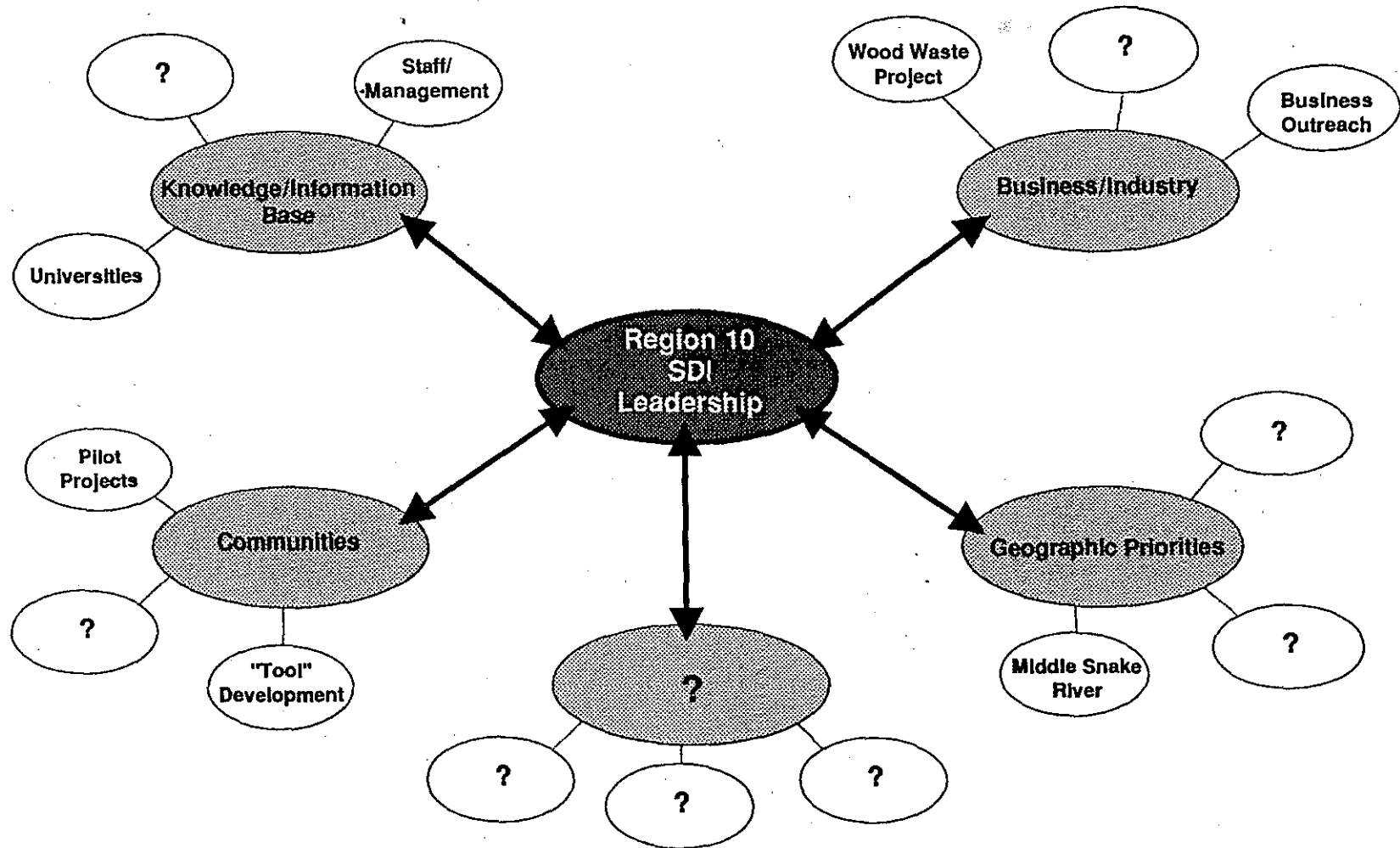
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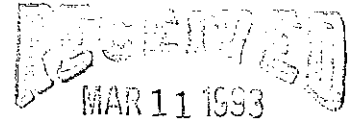
# Region 10 Sustainable Development Initiative





MAR 05 1993

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY



Reply to  
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Action

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Program Module:       **Communities**

Action

Develop and implement a program to help communities develop an "infrastructure" of skills, tools, information, etc. that will enable progress toward sustainability.

Description

Currently there are no clear guidelines for how a community, of any size, establishes and implements a long-term focus on sustainability. It is clear that some new tools, skills, and approaches will be needed in areas such as environmental education, information use, policies, incentives, etc. In all these areas, and others, there is a need for improved processes and opportunities for networking and information transfer between those involved in grappling with these issues.

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Program Module:      **Geographic Priority Areas**

Action

Develop a sustainable development project/program for the Middle Snake River area of southern Idaho.

Description

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Program Module:      **Geographic Priority Areas**

Action

Identify one or more additional geographic areas as priorities for a sustainable development emphasis.

Description

EPA currently is placing a major priority on developing integrated, geographic approaches for addressing environmental problems. As part of these efforts EPA needs to figure out, for varying combinations of scale, problems, and institutional arrangements, how to enable a stronger focus on long-term sustainability in these areas. Within Region 10, a number of areas of varying size and complexity have been identified as priorities. The Region will identify one or more of these as areas for which programs to enhance sustainability will be developed.

Program Module:      **Business/Industry**

Action

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Description

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Action

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Program Module:        **Knowledge and Information Base**

### Action

Develop processes and opportunities that will increase teaching and research within Northwest public and private universities on sustainability issues and needs.

### Description

Many researchers and departments in Northwest universities are beginning to focus more on the broad array of educational and research efforts to support the transition toward sustainability. Often, however, there is not a clearly defined set of needs and priorities that have been articulated by business, government, etc. Increasing the communication, priority and focus on research and training needs in the sustainability area will be the focus of work in this module.

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Program Module:           **Knowledge and Information Base**

Action

Increase the understanding of sustainability concepts, opportunities, and implications among Region 10 managers and staff.

Description

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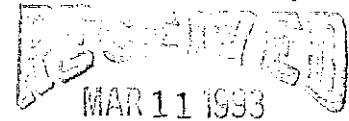
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Program Module:       **Communities**

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Program Module:       **Communities**

Action

Develop and implement a program to help communities develop an "infrastructure" of skills, tools, information, etc. that will enable progress toward sustainability.

Description

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**Program Module:      Geographic Priority Areas**

**Action**

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**Description**

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**Program Module:      Geographic Priority Areas**

**Action**

Identify one or more additional geographic areas as priorities for a sustainable development emphasis.

Description

EPA currently is placing a major priority on developing integrated, geographic approaches for addressing environmental problems. As part of these efforts EPA needs to figure out, for varying combinations of scale, problems, and institutional arrangements, how to enable a stronger focus on long-term sustainability in these areas. Within Region 10, a number of areas of varying size and complexity have been identified as priorities. The Region will identify one or more of these as areas for which programs to enhance sustainability will be developed.

Program Module:      **Business/Industry**

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Program Module:      **Knowledge and Information Base**

### Action

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### Description

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Program Module:           **Knowledge and Information Base**

Action

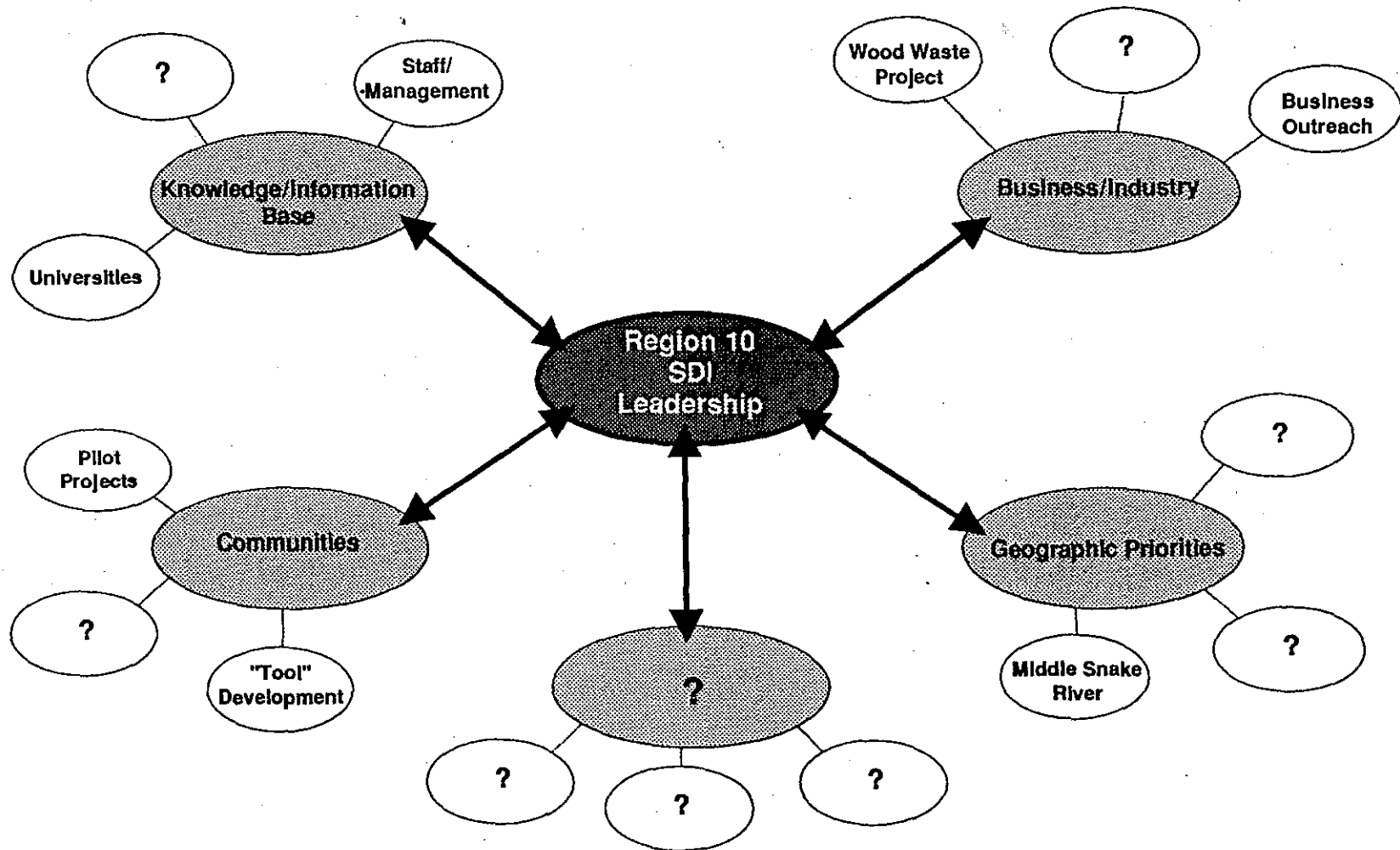
Increase the understanding of sustainability concepts, opportunities, and implications among Region 10 managers and staff.

Description

Making the concept of sustainable development real at the operational or practical level is a key challenge. There is increasing work in this area on many fronts. Experiments are being tried, a body of literature is developing, business is beginning to examine the implications and modify practices, communities are trying to figure out what it means to be sustainable, etc. For EPA Region 10 to be a relevant participant in the transition that is emerging, managers and staff need to keep abreast of the changing ideas and opportunities in this area.

Efforts in this module will proceed on several tracks. The monthly Sustainable Futures Forum will continue to bring in outside speakers on sustainability topics. Periodically, presentations and discussion of sustainability concepts and issues will be included in Executive and Management Team meeting agendas. Short term training opportunities in areas where skill development is needed will be identified and promoted. In this regard, a proposal will be developed to target a portion of the regional training budget for specific skill development needs. In the area of information distribution, a computer file of current articles and papers on sustainability issues will be established and made accessible through the LAN system. The Library is also developing a collection of sustainability materials.

# Region 10 Sustainable Development Initiative



All DAS  
ERC  
EXCL. STAFF



MAR 05 1993

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

MAR 11 1993

Reply to  
Attn Of: HW-124

Fred Hansen, Director  
Oregon Department of Environmental Quality  
811 SW Sixth Avenue  
Portland, Oregon 97204

OFFICE OF THE DIRECTOR

Dear Mr. Hansen: *Fred*

As you know, we have been working to define some new directions for Region 10 in the area of sustainable development. Since there is a continuing growth in the public focus on issues in this area (what it is, how do you "do" sustainable development, etc.), all are hoping to learn more about the implications of the transition toward sustainability that is taking place and find ways to foster and support it.

In January, we adopted a framework program to guide our efforts in this important area. A description of that program is enclosed for your information. It identifies the priority areas where we feel we have a role and can enhance progress over the next 2-3 years. The program components build on, and are complementary to, many of the priority themes and programs we are jointly working on with you. The framework is flexible so that as we learn more about this complex challenge, we can add or modify the program as needed.

I would appreciate it if you could circulate this to appropriate staff and managers within your agency. We will be glad to discuss the initiative in more detail with you as needed. Questions, comments, and suggestions are welcome. This is for us the beginning of a long-term effort in this area and continuing feedback will be essential for success.

Sincerely,

Dana A. Rasmussen,  
Regional Administrator

Enclosure

cc: Kenneth D. Brooks  
Oregon Operations Office

## REGION 10 SUSTAINABLE DEVELOPMENT INITIATIVE

The concept of sustainable development as a long-term goal is emerging as one of the major factors that will guide development and implementation of environmental protection programs in future years. EPA Region 10 has established an initiative in this area. There are several objectives for this effort. They are:

1. To establish EPA Region 10 as an active leader and participant in efforts within the Northwest to enhance sustainability.
2. To develop an understanding of sustainable development concepts and principles and how they relate to EPA's role and programs in the Northwest.
3. To develop a sustainable development program which will identify major areas of emphasis and provide a dynamic framework to guide Region 10 activities in this area.
4. To carry out a variety of projects which will address priority needs and which will help define how EPA can best enable progress in this area.
5. To be a resource and leader within EPA as the agency develops programs and initiatives in the sustainable development area.

To achieve these objectives, Region 10 has adopted a core sustainability program. It currently contains modules and projects in four areas: communities, geographic areas, business and industry, and the knowledge and information base. The framework of the plan is flexible and, as our experience and thinking in this area evolves, additional elements will be added to the program as appropriate. Following are a graphical representation and brief narrative descriptions of the program. For more detailed information on this initiative, contact the Region 10 Office of Environmental Sustainability at 206-553-1792.

Program Module:       **Communities**

Action

Incorporate a sustainable development focus into pilot projects for small community environmental planning.

Description

Region 10 will carry out, through its small communities program, some pilot projects to help selected small communities with integrated environmental planning and priority setting. These projects will enable pilot communities to use limited resources to address highest priorities first, and develop a long-term strategy to address all problems. They will involve application of risk-based and other planning approaches. The experience gained will help formulate a generic model process that small communities can use, independent of EPA resources, to develop their own integrated plans.

As these projects are developed and implemented, we will find appropriate ways to incorporate into the process an emphasis on sustainable development. This will involve integrating into planning and implementation both economic and environmental considerations at the same time. This approach will provide a framework for involving agencies with economic and community development responsibilities as partners in finding solutions to local environmental problems. It will also help identify barriers and opportunities within EPA programs related to working in this type of framework and process.

Program Module:       **Communities**

Action

Develop and implement a program to help communities develop an "infrastructure" of skills, tools, information, etc. that will enable progress toward sustainability.

Description

Currently there are no clear guidelines for how a community, of any size, establishes and implements a long-term focus on sustainability. It is clear that some new tools, skills, and approaches will be needed in areas such as environmental education, information use, policies, incentives, etc. In all these areas, and others, there is a need for improved processes and opportunities for networking and information transfer between those involved in grappling with these issues.

Region 10's work in this area will involve, initially, developing a better understanding of both resources and needs in this area. Lessons learned from the small community pilot projects, experiences in relating to the growth management programs, work in watersheds, etc. will provide input. Based on this ongoing determination of needs and opportunities, a longer-term agenda to address and help meet priority needs will be developed. This in turn will influence actions in other program modules (See Universities for example).

Program Module:      **Geographic Priority Areas**

Action

Develop a sustainable development project/program for the Middle Snake River area of southern Idaho.

Description

The water quality and ecological values in the middle reaches of the Snake River in the vicinity of Twin Falls, Idaho, are currently severely impacted by excessive nutrient loadings, flow modifications due to dams and withdrawals, industrial wastes, etc. At the same time, there are community plans for economic development, for increasing recreational use of the River, for an increase in the dairy industry, etc. Current public and private sector environmental protection efforts are focused primarily on gaining control of the excess nutrient problem. They do not at this point represent an integrated effort to achieve long-term economic and environmental sustainability.

In this project, Region 10 will explore ways that we can enable a stronger emphasis on long-term sustainability. Initial work will focus in three areas. These are: 1) developing a better base of information on resource use and environmental/economic ties, 2) serving as a catalyst for projects and processes that will increase the efficiency of waste utilization and energy use in the area, and 3) exploring with local leaders the possibility of a local "visioning" process to better define what needs to be sustained over the long term. Results from this work will help determine a strategy for next steps.

Program Module:      **Geographic Priority Areas**

Action

Identify one or more additional geographic areas as priorities for a sustainable development emphasis.

through some of the other modules (ex. - geographic priorities, communities) may serve as a focal point. Focus groups, a steering committee, or other mechanisms for obtaining input and buy in will be explored and implemented as appropriate. After this period of initial work, a longer term strategy will be developed.

**Program Module:            Knowledge and Information Base**

**Action**

Increase the understanding of sustainability concepts, opportunities, and implications among Region 10 managers and staff.

**Description**

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# Region 10 Sustainable Development Initiative

