

OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 03/11/1991



State of Oregon
Department of
Environmental
Quality

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State of Oregon
ENVIRONMENTAL QUALITY COMMISSION
A G E N D A

REGULAR MEETING -- March 11, 1991

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

Consent Items

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

- A. Approval of Minutes of the January 31, 1991 EQC Meeting
- B. Approval of Tax Credit Applications
- C. Authorization for Rulemaking Hearing on Rule Amendments Relating to Charging a Fee for Yard Debris Collection
- D. Authorization for Rulemaking Hearing on Proposed Amendments to On-Site Sewage Disposal Permit Fees

Rule Adoptions

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

- E. Proposed Adoption of Rule Amendments to the Hazardous Waste and Polychlorinated Biphenyl (PCB) Rules
- F. Proposed Adoption of Rules for Ranking Inventory of Hazardous Substance Sites

Action Items

- G. Portland Airport Noise Abatement Plan: Commission Approval
- H. Approval of Amendment to the Previously Approved Alternative Plan for Alleviating a Health Hazard in North Albany
- I. Approval of Amendment to the METRO Order on Solid Waste Reduction
- J. Motion by Boise Cascade Corporation for an Order Identifying Issues in the Contested Case on NPDES Permit No. 100715 Issued to the City of St. Helens

NOTE: This item will be considered at approximately 11:00 a.m.

Information Items

- K. Review of the State/EPA Agreement (SEA) for FY 92
- L. Commission Member Reports: (Oral Reports)
 - Governor's Watershed Enhancement Board
- M. Director's Report (Oral Report)
- N. Legislative Update (Oral Report)
 - Air Fee Bill
 - Budget

Public Forum

This is an opportunity for citizens to speak to the Commission on environmental issues and concerns not a part of the agenda for this meeting. Individual presentations will be limited to 5 minutes. The Commission may discontinue this forum after a reasonable time if an exceptionally large number of speakers wish to appear.

Work Session

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

- O. City of Portland Clean River Program
- P. Emergency Response: Discussion of Status and Capability
- Q. Operating Plan and Strategic Plan: Update and Discussion

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

The next Commission meeting is tentatively scheduled on Friday, April 26, 1991, at DEQ offices in Portland, Oregon. A brief work session is tentatively scheduled at the same location on April 25, 1991.

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 20, 1991

Approved _____
Approved with corrections _____
Corrections made _____

MINUTES ARE NOT FINAL UNTIL APPROVED BY THE EQC

ENVIRONMENTAL QUALITY COMMISSION

Minutes of the Two Hundred and Tenth Meeting
January 31, 1991

Regular Meeting

The Environmental Quality Commission regular meeting was convened at about 8:40 a.m. on Thursday, January 31, 1991, in Conference Room 3a of the Department of Environmental Quality Offices at 811 S. W. 6th Avenue in Portland, Oregon. Commission members present were: Chair Bill Hutchison, Vice Chair Emery Castle, and Commissioners Bill Wessinger, and Henry Lorenzen. Commissioner Carol Whipple was unavoidably delayed in arriving at the meeting. Also present were Michael Huston of the Attorney General's Office, Director Fred Hansen of the Department of Environmental Quality and Department staff.

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

Chair Hutchison opened the meeting by announcing that the meeting had been rescheduled to a one day meeting to make it possible for all Commission members to attend. He also announced that Agenda Item E would be removed from the Consent Agenda to provide for testimony and discussion.

Consent Items

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

A. Approval of Minutes of the December 13, 1990 EQC Meeting

A draft of the minutes was circulated to the Commission prior to the meeting.

B. Approval of Tax Credit Applications

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

EQC Meeting Minutes
January 31, 1991
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TC-2653	O. C. Webb-Bowen, Inc.	Installation of four fiberglass tanks and piping, spill containment basins, float vent valves, line leak detectors, impact valves, oil/water separator, piping for Stage II vapor recovery and monitoring wells.
TC-2654	J & E Enterprises	Installation of three STI-P3 tanks, fiberglass piping, spill containment basins, turbine leak detectors, monitoring wells and underground preparation of the site for a tank monitor.
TC-2671	Oak Park Farms, Inc.	Straw Storage Shed.
TC-2774	William C. Smith	Straw Storage Shed.
TC-2800	Don Wilson Enterprises, Inc.	New installation of three fiberglass/steel double wall tanks, double wall fiberglass piping, spill containment basins, sumps, tank monitor and an oil/water separator.
TC-3058	Merritt Truax, Inc.	Installation of leak detection and overfill prevention on four underground storage tanks in the form of automatic tank gauges with alarms.
TC-3207	Metrofueling, Inc.	Installation of leak detection on four underground storage tanks in the form of automatic tank gauges with overfill alarm.
TC-3230	Arnold E. Knox	12' Dandl Row Chop Shredder.
TC-3249	K. Farms, Inc.	Rear's 30' Propane Flamer.
TC-3253	Monte J. Lewis	Hesston 60B Stackhand.
TC-3254	Monte J. Lewis	Straw Storage Shed.
TC-3255	Environmental Rubber Bonding Co.	Pole Barn & Forklift.
TC-3287	Burns Bros., Inc.	Installation of Spill containment basins, turbine leak detectors and a tank monitor system for six tanks.
TC-3290	Howard Schwanke	Three Straw Storage Sheds.
TC-3293	Clifford Jenkins	Installation of two fiberglass tanks and piping, spill containment basins, tank monitor, overfill alarm, float vent valves, Stage I vapor recovery and piping for Stage II and monitoring wells.
TC-3294	Barry Desbiens	Installation of three fiberglass tanks and piping, spill containment basins, float vent valves, tank monitor, turbine leak detectors and underground preparation for a tank monitor.

TC-3295	Sheldon Oil Company, Inc.	Installation of four fiberglass tanks and piping, spill containment basins, monitoring wells and float vent valves.
TC-3301	Pendleton Grain Growers, Inc.	Installation of fiberglass piping, spill containment basins, tank monitor and line leak detectors.
TC-3302	Russell Oil Co.	Installation of spill containment basins and line leak detectors for seven tank and piping systems.
TC-3304	Laurel Valley Store	Installation of one 5,000 gallon STI-P3 tank, fiberglass piping, spill containment basins, check valves and a float vent valve.

The Department recommended that approval be denied on the following Pollution Control Facility Tax Credit application:

TC-3241	Mill Waste Recycling Co.	Mobile Log Yard Debris Separation System.
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C. Authorization for Rulemaking Hearing on Rules for Solid Waste Planning/ Recycling Grants

This item requested approval to proceed to rulemaking hearing on proposed rules to establish procedures, criteria, and limitations for award of solid waste planning and recycling grants pursuant to ORS 459.295(2)(e).

D. Proposed Adoption of Rules for PM₁₀ Control Strategy for Eugene-Springfield (LRAPA Plan), Medford-Ashland, and Klamath Falls

This item requested adoption of PM₁₀ control strategies as State Implementation Plan (SIP) revisions for Eugene-Springfield, Medford-Ashland, and Klamath Falls. The proposed control strategies were presented in Attachment A of the staff report. The proposed control strategies describe the State of Oregon's plan to meet federal Clean Air Act requirements to attain compliance with the annual and 24-hour PM₁₀ standards and maintain compliance with the standards in these areas through at least the year 2000. The proposed control strategies represent partial PM₁₀ plans since they fulfill to varying degrees the requirements of the Clean Air Act. Additional work will be needed on all three strategies to meet new requirements of the recently amended Clean Air Act signed by the President on November 15, 1990. In addition, enforceable woodburning curtailment programs are needed in Klamath Falls and Central Point.

E. Proposed Adoption of Rules on a Method and Criteria to Establish Maximum Measurable Levels (MMLs) of Contaminants in Groundwater

This item requested adoption of proposed rules to establish a method and criteria for setting Maximum Measurable Levels (MMLs) for contaminants in groundwater as presented in Attachment B of the staff report. The Department recommended adoption of the rules developed and recommended by the Oregon Groundwater Technical Advisory Committee with minor modifications. The proposed rules:

1. Declare Maximum Measurable Levels to be protective of public health and the environment.
2. Define the intent of an MML as triggering the declaration of a Groundwater Management Area and states that MMLs are not intended for use as clean up standards.
3. Define which chemicals are to be considered for MML adoption.
4. Establish a procedure for providing early notice to the public of the Department's intent to begin the process to adopt an MML.
5. Define when a federal standard is not considered by Oregon to be protective of public health and the environment.
6. Outline the procedure used to establish an MML if the federal standard is rejected or no federal standard exists for a substance. Both public health and environmental factors are considered.
7. Require the Department to develop and publish Human Health and Environmental Advisories with pertinent information on the effects of the substance in the groundwater.
8. Establish a procedure for modifying an MML.

The Commission removed items B, D, and E, from the consent agenda by consensus to allow for public testimony and discussion.

Action on Consent Items A, and C:

It was MOVED by Commissioner Castle that the Department recommendation on Agenda Items A and C be approved. The motion was seconded by Commissioner Wessinger and approved with 4 yes votes.

Consideration of Consent Item B: (Approval of Tax Credit Applications)

Paul Parker, partner in Mill Waste Recycling Company, offered testimony on Tax Credit Application TC-3241. Mr. Parker indicated that the application requests certification of a machine that was constructed to recycle log yard waste. The machine was finished on August 15, 1988. Prior to use of the machine, log yard waste was discarded in canyons or landfills. The machine recovers rock to reuse on log yards, and bark which can then be used. The machine began operation August 22, 1988. They were in contact with Department staff and were advised that the machine was not eligible for tax credit because it was being acquired and operated for profit rather than pollution control. In December 1989, they became aware that they could get credit. At that time, the Department forwarded application materials to them. They completed their application, signed it, and mailed in on August 22, 1990 -- exactly two years after they bought and started operating the machine.

Roberta Young, of the Management Services Division, noted that August 15, 1988, was the date of completion shown in the Application received by the Department. Further, the application was received at DEQ on August 31, 1990 (stamped in). Mr. Parker indicated he received a call from the Department on August 27 advising that forms had been received, however, it was incomplete because the required fee was not submitted.

Director Hansen noted that the statute is clear that an application must be submitted within 2 years of substantial completion of the facility. Thus, it is necessary to look at the facts in the case. If the Commission wanted to grant tax credit, it would have to find that possible mis-communication from the Department disadvantaged the applicant to the point that the application should be treated differently. Commissioner Lorenzen indicated another factual issue would be the actual startup date. Another issue may deal with when an application is considered filed. Roberta Young noted that an application is stamped in and considered filed upon receipt, even if it is incomplete. However, with receipt on August 31, 1990, the Department is unable to conclude that the application was filed within the 2 year deadline. Michael Huston, Assistant Attorney General, advised that the statute does not contemplate any waiver of requirements. It does allow for granting an extension if it is requested prior to the deadline for submittal. He further noted that the statute provides that failure to file a timely application (within 2 years of completion) makes the facility ineligible for tax credit certification.

Chair Hutchison stated that Mr. Parker was to be commended for his actions in recycling and reusing log yard waste. However, he summarized that the statute provides clear guidance, and even assuming that Department advise to the applicant in the beginning regarding eligibility was in error, the applicant had sufficient time after the Department corrected its advise to complete an application prior to the deadline.

Commissioner Castle asked if there had been any prior applications that might be a precedent for action in this case. Roberta Young responded that the Commission has consistently granted extensions of time to file an application when the extension request has been filed

within the two year deadline. The Commission denied an extension to a field burning applicant more than a year ago where the request was after the two year deadline for filing. Furthermore, the Department has consistently advised people that extensions could not be granted after the two year deadline.

It was MOVED by Commissioner Lorenzen that Tax Credit Application TC-3241 be denied. The motion was seconded by Commissioner Wessinger. By roll call vote, the motion was approved with four members supporting the motion, and none opposed.

It was MOVED by Commissioner Wessinger that the remaining tax credit applications with the exception of TC-3301 be approved. The motion was seconded by Commissioner Lorenzen and approved with four yes votes.

It was MOVED by Commissioner Castle that Application TC-3301 be approved. The motion was seconded by Commissioner Wessinger and approved with three yes votes, and Commissioner Lorenzen abstaining due to a potential conflict of interest.

Consideration of Consent Item D: (Proposed Adoption of Rules for PM₁₀ Control Strategy for Eugene-Springfield (LRAPA Plan), Medford-Ashland, and Klamath Falls)

Director Hansen noted that the old Clean Air Act required that the State Implementation Plan (SIP) address the whole of a non-attainment area, and precluded approval of a strategy that dealt with part of the area only. The new Clean Air Act Reauthorization signed by President Bush on November 15, 1990, allows partial SIPs to be approved. This change allows the Department to bring forward proposals that need further action in order to meet all requirements. Merlyn Hough, representing the Air Quality Division, indicated that all three plans are incomplete at this time, and need further work. EPA has encouraged the Department to bring the partial plans forward as soon as possible. Commissioner Wessinger asked if partial approval would give an excuse for foot dragging on remaining items. Mr. Hough indicated that partial approval did not take any of the heat off, and that EPA could go to sanctions including cut off of highway funds or could adopt a plan if actions are not taken by November.

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

Consideration of Consent Item E: (Proposed Adoption of Rules on a Method and Criteria to Establish Maximum Measurable Levels (MMLs) of Contaminants in Groundwater)

Director Hansen introduced the discussion by noting the HB 3515 is unique among the programs DEQ is involved with because it is designed as a preventive program. As a result, rules must be viewed as preventive rather than corrective. The debate is on the triggers to initiate studies for development of preventive strategies rather than upon the regulatory threshold to be met. Regulatory levels will have to be developed later.

Brett Fisher, representing the Northwest Coalition for Alternatives to Pesticides (NCAP), indicated agreement that the purpose of the groundwater act was to prevent groundwater pollution. He stated that the MMLs are intended to be the triggers for action; they are not treatment standards as many have suggested in their testimony. Mr. Fisher's comments addressed three points as follows:

1. Federal drinking water standards (MCLs) should not be used as MMLs. The purpose of the MMLs is to trigger studies and planning for preventive actions. MMLs are not treatment standards. Statements in testimony incorrectly suggest that MCLs are determined by EPA at levels to protect public health. MCL Goals are intended to be protective of health. MCLs are set as close to the MCL Goal as technologically and economically feasible and thus are not necessarily protective of public health. MCLs also do not protect aquatic environment as required by groundwater law. Therefore, it is appropriate to have standards for triggering preventive actions that are more stringent than the MCL's.
2. Questions about cancer risk assessment should be answered conservatively. The rules are supposed to determine method and criteria that are protective of health and the environment. NCAP is a critic of risk assessments, and therefore urged the Commission to be on the side of caution when risk assessments are used.
3. MMLs may be set below the level of detection with current technology. MMLs are supposed to protect human health and the environment. If MMLs are set below the detectable level, then detection clearly triggers study and action. There are examples of situations where concentrations below levels of detection cause problems. Thus, MMLs can be set below the level of detection in order to be protective of health and the environment.

Director Hansen advised the Commission that the Health Division had submitted some proposed rule amendments that they believed would clarify several areas of the rules. The Department agreed that their proposed changes would be beneficial clarifications of intent.

Dr. Clinton Reeder, Chair of the Groundwater Advisory Committee, stated that the staff report fairly represents the issues addressed at the hearings, and the conclusions reached in

the staff report reasonably bracket the concerns of all who participated. He indicated that he had reviewed the recommendations of the Health Division for clarifying amendments, and viewed them as friendly amendments. He noted that the Health Division used the term public health while the committee used the term human health because that was the language of the statute.

Dr. Reeder then directed the Commission's attention to two issues that were discussed at length by the Advisory Committee, and that should be considered as policy issues by the Commission.

1. Should a standard be set below the level of detection?

Dr. Reeder noted that the law requires the standards to protect human health and the environment. Therefore, the conservative conclusion to reach is that the standard should be set where it protects human health and the environment independent of technology (including detection technology). This theoretical compliance with the statute ignores some practicality issues. Modeling can be used to predict whether a particular pollutant may be present even though it is not detectable with current measuring technology. Modeling results can vary depending on assumptions made and who develops the model. If a standard is set below the level of detection, the agriculture community fears that chemicals may be disallowed (the ultimate conservative response) until technology allows the chemical to be detected at the level of the standard. Dr. Reeder stated that this matter is a policy question for the Commission -- one that science cannot resolve. The Advisory Committee took a conservative approach and recommended that the standard be set to be clearly protective of public health and the environment at the level set. If that standard is below the level of detection and you have a trigger that is 50% of the standard, you trigger a management area and corrective action as soon as you detect the parameter with whatever technology is available. Dr. Reeder suggested that the public wants to know what the standard is for Oregon. The public will not be well served if you end up with a cleanup standard, a drinking water standard, and a groundwater standard that are different, and with it unclear just what is protective of human health and the environment.

Chair Hutchison asked if non use of a chemical could be the Best Management Practice that would be required as a response. Dr. Reeder responded that non-use could be a response, however, other options may be available.

2. Risk level factor -- Should a rigid risk level of one in a million be used?

Dr. Reeder noted that there is no scientific way to determine what is "safe". Thus when you set a standard, you must decide what level of exposure you will consider to be protective or safe. The advisory committee argued this long and hard and arrived at value judgement that at a level of one in one million, people have some level of

emotional comfort. (Some may feel comfortable at a less protective level.) The committee took the position that economics should be disregarded in establishing the level of the standard. It was assumed that economics would be factored in to any response to the standard. Economics thus was not a factor in setting the level that would trigger designation of a management area. However, when you look at the plan for the management area and the BMP's that would be required in a plan to respond to the management area designation, economics would come into play.

Dr. Reeder then noted that this approach raises another issue. If the MML isn't a cleanup standard, then what is the cleanup standard, and what length of time is acceptable for meeting the standard. Dr. Reeder strongly recommended that the Commission clearly indicate that the MMLs are triggers. If MMLs are to be used as cleanup standards, then other issues will need to be addressed.

Director Hansen noted that the issue of risk will be dealt with in a broader context several months from now when the Environmental Cleanup Division brings forward a proposed policy for Commission consideration.

Dr. Reeder then summarized the work of the advisory committee as follows:

1. The committee leaned toward use of the more conservative of the positions debated, and eliminated the far out positions.
2. The committee recommended that economics be avoided in the setting of standards, and encouraged economics to be addressed in the response side of the issue.
3. The committee considered but was not unduly influenced by administrative and legal practicalities. The committee tried to stay true to the statute, and adjusted to reflect administrative and legal practicalities only where still true to the statute.
4. The focus was on prevention rather than cleanup.
5. The committee focused on scientific evidence and attempted to minimize the impact of simple value judgements in the process.

Dr. Reeder concluded by urging the Commission to adopt the recommendations presented by the Department, with the modifications suggested by the Health Division, and that further issues be addressed when they come up.

Amy Patton, Groundwater Manager for the Department, noted that a chart was inadvertently left out of copy of rules distributed. A copy was passed out to Commissioners and placed on the back table for the public.

In response to a question from Chair Hutchison, Ms. Patton stated that the Department supports the Health Division recommendation. Ms. Patton also stated that the statute uses both human health and public health. Tom Johnson of the Health Division expressed the view that public health is a more generic term. Mr. Johnson said that consistency in the terminology would be desirable. Chair Hutchison suggested that a definition be added to define public health to include human health and use one term throughout.

Chair Hutchison then identified several potential issues for Commission discussion, including water rights, trigger vs. cleanup (practicality and public perceptions), Risk factor (use a range or a set standard), linear model or threshold model, MML vs MCL (state standard vs federal standard), measurable vs. detectable (legislative intent), and resources for setting MMLs.

Measurable vs. Detectable

Amy Patton advised that the legislative record had been reviewed. All arguments on both sides were included in testimony to legislature. The end result was that the legislature used the word measurable in the statute. Michael Huston added that Dr. O'Brien had asked the legislative committee to remove the term measurable from the bill. The committee declined to adopt that amendment. He noted there is also evidence in the legislative record that this decision was not intended to be limiting to the Commission.

Commissioner Lorenzen stated that he was troubled with the use of the term measurable. Dr. Reeder again recapped the committee's discussion of the issue and conclusion that the standard should prevent problems, be set to protect health and the environment, and should not be based on detection technology. The practicality related to detection should be dealt with later in implementation.

Trigger vs. Cleanup

Chair Hutchison asked if the trigger was really a cleanup standard. Richard Kepler of the Groundwater Section outlined how the MML trigger levels would work and the process set up by the legislation.

Commissioner Lorenzen stated that the MML appears to establish a target for clean-up and he was concerned that the proposed rules were prohibiting consideration of economic and technical feasibility. Commissioner Lorenzen recommended that some clarifying language be added to address the use of economic and technical feasibility in the development and implementation of groundwater management plans. He suggested addition of a policy statement that would read: "These rules are not intended to establish a clean-up or regulatory standard. Such a standard shall not exclude considerations of current technology and economics."

Dr. Reeder stated that one cannot deny that, by definition, an MML is a cleanup standard. However, it all depends on how you define "cleanup". This situation does not involve the typical definition of cleanup (remedial action, hauling removed materials to Arlington). Levels of a pollutant detected at greater than 50% of the MML triggers designation of a management area and development of a plan that will get the area back at least to the 50% level. The Advisory Committee did not evaluate the MMLs as a cleanup standard. The Committee sidestepped the issue by specifying that the MMLs should not be used as a cleanup standard without very careful analysis.

Amy Patton noted that clean-up standards are usually associated with spills or other site specific problems which have created contamination at a very high level and take some type of remedial action to address them. A groundwater management plan conversely looks at ways to reduce the contamination going into the groundwater through the application of best management practices rather than cleaning up what is already there.

Commissioner Castle stated that the document before the Commission will trigger corrective or remedial action, but does not say anything about the economics or technical feasibility of the corrective action. He believed this was very different than having a standard. He stated that he saw no way out of the dilemma other than to start action and build in other considerations as things progress.

Director Hansen and Lydia Taylor, Water Quality Division Administrator, outlined the assumptions regarding corrective action to be taken in a groundwater area. These were: 1) groundwater overtime will cleanse itself or at least the level of pollution will decrease, and 2) the preventative activities would include decreasing the pollutant loads going to the groundwater (ie. the management practices that are applied on an area wide activity). Therefore, under a corrective action, one is talking about decreasing pollutant loads rather than removing pollutants already discharged.

Dr. Reeder noted that the Committee spent a lot of time on this issue. They concluded that existing cleanup rules can be used to address a site specific source (spill). For non-point sources, one must look at the intent of the statute -- which is to trigger preventive action. Between detection and 50% of the MML, a voluntary load reduction process is triggered. If the voluntary approach is not sufficient and levels climb to 50% of the MML, a shift to a mandatory load reduction action is required. Other rules give the full range of options for intervention as necessary. The preventive triggers were the thing that was missing in the current system and added by the legislation.

Risk Level

Chair Hutchison asked for any further discussion on risk level. Dr. Reeder noted that some want no risk while others recognize that the world is a risky place. He stated that the Committee came to a value judgement reconciliation on this issue and accepted one in a million as the level where emotional discomfort was least. The Committee concluded that

whether to use a range or a fixed number, and which model to use are policy judgments; science will not give an answer.

Resources

Chair Hutchison asked about resources to set MMLs and declare groundwater management areas.

Lydia Taylor stated that the Department did not have the resources to move ahead very rapidly in this area. At present the Department was working in two groundwater management areas and additional progress would be slow. Director Hansen noted that current work is resource intensive, but as experience is gained, the Department will have more knowledge, and should be able to move forward with less effort.

General Discussion

Commissioner Lorenzen was still concerned about economics and suggested addition of to the statement of purpose in the rules as follows: "To the extent permitted by law, clean-up standards will consider economics and technical feasibility." His concern was that the rules exclude economic considerations in the setting of MMLs, and he would feel more comfortable if there was a statement which would tie management plan actions back to economic and technical considerations. Commissioner Lorenzen stated that if we want to get people to join in the effort to make voluntary compliance work, we need to make sure we don't alienate the people we're trying to work with. He urged the Commission to at least acknowledge that economics and technological feasibility are not totally excluded.

Commissioner Wessinger stated his concern that language such as that proposed by Commissioner Lorenzen could be used to weaken the purpose of the whole rule.

Lydia Taylor and Mike Downs, Administrator of the Environmental Cleanup Division, noted that a standard should be designed to protect public health and the environment. The question is whether one should build technical feasibility and economics into the standard itself or whether one considers technical feasibility and economics in a strategy for meeting the standard or in a site specific variance from the standard. The Department's view has been that economic and technical feasibility should be considered in the response to a standard and not in the standard itself. In this way, one can deal with differing site conditions.

Chair Hutchison stated he was persuaded of the need to get the process started and, based on experience, target issues for further consideration later.

To address the continuing concerns of Commissioner Lorenzen, Dr. Reeder suggested an addition to the policies section of the rules as follows:

While economics, detection technology and feasibility are excluded from consideration in establishment of an MML, these factors may be considered in determining appropriate remedial responses.

Director Hansen wanted the record to reflect the understanding that such language is not intended to provide a reason to do nothing to stop a growing groundwater contamination problem because it will cost something to change practices. Commissioner Wessinger stated that the Commission needed to assure that preventive action would occur and that cost does not become the basis for no action.

Commissioner Castle said its very hard to object to the language that Commissioner Lorenzen and Dr. Reeder have proposed. He expressed concern that the whole environmental approach in this country has been what economists call command and control, and that is a very different approach than one would use if designing things from a economic point of view. He continued that it doesn't mean that economics is excluded from the process, however, it does mean that the way economics is considered is not specifically identified.

It was MOVED by Commissioner Lorenzen that the Department recommendation, corrected to include the omitted chart, and the following amendments as suggested by the Commission, the Health Division, and Dr. Reeder be adopted:

- Page B-1, Statement of Purpose -- OAR 340-40-100, last paragraph:

The maximum measurable levels established by these rules are not designed to be used as drinking water standards or as clean-up standards for remedial actions, but to initiate the process of designating groundwater management areas where necessary to preserve groundwater quality.

- Page B-3, Definitions -- OAR 340-40-105(8):

Protect Public Health and the Environment: to keep humans and the environment from unreasonable present or future exposure to adverse risk, effect or harm, excluding economic concerns.

- Page B-4, General Policies -- OAR 340-40-108, Insert new (5) and renumber remainder:

(5) Public Health: The Department shall, for the purposes of establishing maximum measurable levels and developing environmental and health advisories, consult with the Oregon Health Division regarding human health concerns.

- Page B-4, General Policies -- OAR 340-40-108, Insert new (9) and renumber remainder:

(9) While economics, detection technology and feasibility are excluded from consideration in establishing an MML, these factors may be considered in determining appropriate remedial responses.

- Page B-6, OAR 340-40-125 (1)(a):

The department determines that valid scientific evidence establishes that the federal standard is not protective of ~~human~~ public health as defined in 340-40-105(8).

The motion was seconded by Commissioner Wessinger.

Commissioner Whipple arrived during the discussion of this item. She expressed regret at missing most of the discussion on such an important item.

Commissioner Whipple stated that she placed a great deal of confidence in the advisory committee recommendation, but was concerned that there appeared to be a slight backing off from some of the recommendations in testimony presented by committee members. She asked to have this clarified. Her belief was that groundwater was a critical issue and the Commission should be in a leadership position relative to the issue and would like to see the Commission viewed as leaders rather than just as regulators.

Dr. Reeder explained that he did not view the testimony as a backing off of the Advisory Committee recommendations. Instead, the testimony presented by committee members should be viewed as their effort to make sure the Commission was aware of the differing views on dilemmas that were hard fought in the committee. The recommendations on these issues were compromises.

Chair Hutchison stated he would like this whole issue to come back in the future as a work session item for an update on establishment of MMLs, designation of groundwater management areas, and other activities involved with the Groundwater Act.

Chair Hutchison called for a roll call vote on the motion. The motion was unanimously approved.

Commissioner Castle MOVED that the Commission express its special appreciation to Chair Reeder and the Committee for the exceptional work done on this difficult issue. The motion was seconded by Commissioner Wessinger and unanimously approved.

Special Item -- Container Nursery Strategy Update

Chair Hutchison stated that this item was being added to the agenda because of the need to consider special time constraints and modifications to the strategy being proposed by the staff and the industry.

Lydia Taylor noted that the Container Nursery Association had previously presented a report and proposed strategy for pollution control to address Tualatin Basin issues as well as a proposal to expand the program to apply statewide. The strategy was accepted by the Commission. The Association has asked for modification of interim compliance dates in the strategy but would maintain the current Tualatin Basin end date. Ms. Taylor introduced John Mellott, Administrator of the Natural Resources Division of the Department of Agriculture, who had been working most closely with this strategy. Mr. Mellott noted that the Oregon Association of Nurserymen will take responsibility for educating the industry. The program requires a letter of intent from the growers to the Department of Agriculture by July 15, and dischargers will have to submit their compliance plan by February 1992, for implementation by May 1, 1992. There are 1100 nurseryman in state with an estimated 200 that will fall into the container nursery category. The Department of Agriculture doesn't have funding to do the needed education. Therefore, they would like approval and letter from the Commission so that the Association can proceed with their proposal. The Association wants clear indication that its program will be acceptable as part of the statewide plan.

By consensus, the Commission gave conceptual approval of concept.

Informational Items

F. Review of Report to the Legislature on Conditionally Exempt Small Quantity Generators of Hazardous Waste

This item requested comments on the report to legislature on Conditionally Exempt Small Quantity Generators of Hazardous Waste as required by HB 3515 passed by the 1989 legislature. Conditionally exempt small quantity generator are businesses that produce less than 220 pounds of hazardous waste or 2.2 pounds of acutely hazardous waste per month and do not store more than 2200 pounds of hazardous waste or 2.2 pounds of acutely hazardous waste on-site at any one time. The 1989 legislation recognized that such generators have limited waste management options, and requested that the Department report on waste management and funding options. In preparing the report, the Department worked with several small businesses and advisory committee members.

The report discusses management and funding options but does not make specific recommendations due to limited information on conditionally exempt generators. The report

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January 31, 1991

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stresses the need to collect additional information before permanent management options are recommended.

In response to a question from Chair Hutchison, Stephanie Hallock, Administrator of the Hazardous and Solid Waste Division, noted that conditionally exempt generators have not been in the Hazardous Waste program. As a result, they need information, technical assistance, and education. They constitute 70% of generators, and produce only 1% of the Hazardous Waste. Their complaints are legitimate; these generators don't know the requirements.

Chair Hutchison noted the reference to too little information or missing information in many of the reports, and the need to focus on data gathering. He noted the difficulty in gaging whether goals are achieved without data, and the importance of highlighting the need for resources to the legislature.

Director Hansen stated that this need was already built into legislative proposals and would be noted in the appropriate report transmittal letters.

G. Review of Report to the Legislature on Recycling

This item requested comments from the Commission on a report to the legislature on the status of recycling in Oregon. The report was prepared to satisfy the requirements of ORS 459.168, 459.055(5), 459.355, and HB 3305 passed by the 1989 legislature. The information in the report is based solely on data collected under the Opportunity to Recycle Act. This data related primarily to residential curbside recycling and waste recycled through the recycling depots at solid waste disposal sites. The report stresses the need to collect more complete information on recycling on a statewide basis. Such data would assist in establishing recycling goals and developing better markets for recyclable materials.

Chair Hutchison asked when the Commission will review the list of principal recyclable materials. Stephanie Hallock responded that the Department would propose review following the legislative session since some proposed legislation could change definitions and could effect the list.

Chair Hutchison asked how METRO was proceeding on yard debris recycling. Peter Spendelow, Hazardous and Solid Waste Division, reported that the METRO Council had approved the yard debris plan which will require weekly curbside collection of yard debris by 1994 if sufficient markets exist for the material.

H. Review of Report to the Legislature on Toxic Use Reduction and Hazardous Waste Reduction

This item requested comments from the Commission on the report to the legislature on the status of Toxic Use Reduction and Hazardous Waste Reduction in Oregon. The report was prepared to satisfy the requirements of the Toxics Use Reduction and Hazardous Waste Reduction Act of 1989 (HB 3515). The statute requires that the report include: (1) the status of the technical assistance program; (2) progress toward reducing the quantities of toxic substances used and hazardous wastes generated; and (3) an analysis and recommendation for changes to the program, including but not limited to the need for any additional enforcement provisions. The report addressed these topics to the extent that information is available. No changes are recommended due to the limited amount of information and experience in implementing the program.

Roy Brower, Hazardous and Solid Waste Division, noted that the first plans are due in Sept 1991. An Advisory Committee is working to put rules together. A Toxic Use Reduction planning guidance manual has been prepared and is being well received. The Department is in the process of planning workshops and on-site technical assistance and getting the program up and running. He noted it is difficult to talk about Toxic Use Reduction or Hazardous Waste Reduction when folks don't even understand they have a waste or a pollution problem.

Chair Hutchison asked if this is largely a "carrot" program. Director Hansen responded that failure to comply can lead to a hearing and release of information that would ordinarily be confidential. That is not a big stick but it is something. The Department needs to get further along in implementation to be able to say there is a need for added enforcement provisions.

I. Review of Report to the Legislature on the Wastewater Systems (Sewerage Treatment Works) Operator Certification Program

This item requested comments from the Commission on the report to the legislature on the Wastewater Systems Operator Certification program. A joint report of the Health Division and Department of Environmental Quality on water and wastewater operator certification is required by ORS 448.409. The report summarizes actions taken under the certification statute. No changes in the statute are recommended.

Lydia Taylor introduced Barbara Burton, Manager of the Sewage Disposal Section in the Water Quality Division. Ms. Burton noted that the mandatory certification program started about a year and half ago, that it was supported by the regulated community, was not controversial, and is working. She also noted that the Department is adding a condition to permits as they are renewed to require certified operators.

J. Review of Report to the Legislature on the Environmental Cleanup Program

This item requested comments from the Commission on the report to the legislature on the Environmental Cleanup Program. This report, which includes a four year plan of action, is required by ORS 465.235. For the first time, the Department is required to submit a plan of action including estimates of the number of environmental cleanup actions to be initiated and completed in the next four years. The report also addresses the major issues of (a) voluntary cleanup initiative and financing for orphan sites, (b) illegal drug lab cleanups, and (c) hazardous substance spill response.

Director Hansen noted that there are several tables yet to be added to this report. Mike Downs explained that the statutory requirement for a four year plan is unique and requires the Department to project four years of activities, staff, and costs. This has been difficult, and projections are not complete and in the report for the 93-95 biennium yet.

Chair Hutchison noted that the report was thorough and asked how the voluntary cleanup initiative was proceeding. Mr. Downs responded that it was getting off the ground slower than had been hoped. The program manager has been hired, and the recruitment process is underway for four technical positions.

K. Review of the Report to the Legislature on Field Burning

This item requested comments from the Commission on the joint report to the legislature from the Department of Environmental Quality and Department of Agriculture on Field Burning. This report is required by ORS 468.470(1)(e) and is to describe the progress being made in discovering and utilizing alternatives to open field burning and on the effectiveness of the smoke management program. The report emphasizes the continued decrease in acreage registered and open burned as growers increase their use of alternatives such as straw utilization and propane flaming. The report also cautions that emissions from propane flaming can significantly affect local and regional air quality when practices under adverse atmospheric conditions or done improperly. The report discusses the generally unreliable atmospheric conditions during the 1990 season which resulted in few burning days and increased smoke intrusions and citizen complaints. It also discusses the improved visibility in Oregon's Class I wilderness areas and Crater Lake National Park as a result of the Oregon Visibility Protection Plan. The report stresses that registration and burn fees have remained constant since 1975 while program operating costs have continued to increase due to inflation and other increasing costs. This has resulted in a suspension of the Research and Development Program since fiscal year 1988-89 and may result in a deficit by the end of the 1989-90 biennium.

Director Hansen introduced Steve Greenwood, new Air Quality Division Administrator. Mr. Greenwood noted that the Department of Agriculture prepared most of the report since most of the responsibility for the program had been transferred to them during 1990. Commission-

er Wessinger stated that it provided more information on field burning than he had seen before. He then asked if the fee bill was the only proposed legislation introduced on field burning. Director Hansen stated that Speaker Campbell had included field burning on his list of priorities, but no bill has yet been produced. Representative Cease has also indicated that he intended to reintroduce a bill considered last session.

Stephen Crane, Manager of the Field Burning Enforcement Program, expressed concern that field burning fees have not increased since 1975 but inflation has increased the cost of operating the Program. In addition, revenues from open field burning fees have decreased significantly as growers shift toward non-revenue producing alternatives that require the same services as open field burning. Mr. Crane also stated the Department's concern that the acreage actually burned may exceed the acreage registered and this practice results in a loss of revenue and may increase the possibility of smoke intrusions. The Commission acknowledge the Department's concern.

The Commission expressed their concern regarding the increase in the number of public complaints and smoke impacts to communities in the southeastern Willamette Valley. Mr. Crane stated many of the complaints and the severest smoke impacts occurred on one day when good atmospheric conditions deteriorated unexpectedly trapping smoke in the valley.

The meeting was then recessed for lunch. The public was advised that the Public Forum section would be the first think taken up after lunch.

Public Forum

Michael Jones, 8733 N. Tyndall Avenue, Portland, OR 97217, stated that he had previously forwarded his concerns to the Department on the need for NPDES permits for sewer outfalls to Columbia Slough and for establishment of TMDL's for Columbia Slough. He noted that the Department is now proceeding to develop the TMDL for the Slough. He expressed concern about the adequacy of the Closure Plan for the St. John's Landfill, and stated that the presence of hazardous wastes in the landfill should be considered in the closure plan. He expressed concern about the potential elimination of the noise program as a result of ballot measure five budget cuts. He suggested that consideration should be given to returning the water quality program to EPA rather than cutting noise because EPA will carry out a water quality program, but no one else will address noise issues.

Steve Greenwood noted that the Department had discussed the landfill closure plan with Mr. Jones on numerous occasions. The Department agreed that the initial closure plan was inadequate, but has found the recent plan to be adequate. Mr. Jones does not agree with the Department determination however.

Lee Poe, 3911 N. Attu, Portland, OR 97217, representing the North Portland Odor Abatement Committee and North Portland Noise Abatement Committee, expressed concern about toxics in the St. Johns Landfill, about noxious industrial odor, and about noise from Portland International Raceway, the Portland International Airport, and the railroads. She expressed the view that there is a serious need for odor control legislation and improved technology to measure and model odor. She also urged greater attention to noise problems.

L. Commission Member Reports

Chair Hutchison reported on the Governor's Watershed Enhancement Board. He announced that Commissioner Whipple would be replacing him as the representative of the Commission on the board. Both Chair Hutchison and Commissioner Whipple attended the last meeting in Salem. Projects with a total cost of more than \$200,000 were approved by the Board. Chair Hutchison noted that funding was still being sought for the watershed condition assessment project that DEQ had been spearheading and that would give valuable information for future improvement priorities.

N. Legislative Update (Oral Report)

John Loewy noted that all Commission members had previously been provided copies of DEQ sponsored bills. Copies of testimony presented by the Director and DEQ staff members to the legislative committees on the various bills would also be provided.

Mr. Loewy reported that hearings have been held so far on three DEQ sponsored bills -- recycling, waste tires, and lab certification. Next week, hearings will be held on bills relating to enforcement, asbestos, and new fees for water quality. The comprehensive air fee bill and the Hazardous Waste fee increase bills remain to have their first hearing.

In response to a question from Chair Hutchison, Mr. Loewy reported that the air fee bill was introduced without a great deal of specificity on the motor vehicle portion of the fee. That issue was being explored with various affected and interested groups at this time.

Work Session

3. Status Report on Draft Rules/Guidelines for Gold Recovery Operations

Jerry Turnbaugh reported that the Department was proceeding in accordance with a schedule that called for completing a second draft of proposed rules for gold recovery operations by the end of February. That second draft was already complete. The target is to have a third draft which will be sufficient for distribution for public comment available by March 1. An

informal group is being assembled to assist in a focused technical review of the rules on February 21. This group includes people from DEQ's water quality and solid waste programs, the Department of Fish and Wildlife, the Department of Geology and Mineral Industries, and several private sector individuals associated with and knowledgeable in mining processes and activities.

Commissioner Lorenzen complimented Mr. Turnbaugh on his efforts to develop rules to address Commission concerns. Commissioner Wessinger asked for an indication of the future problem areas with regard to the proposed rules. Mr. Turnbaugh responded that the cost of technology that is not typically practiced would be the issue. Examples would be technology to added processing steps to remove and reuse cyanide rather than discharging it with wastewater, and steps to remove acid generating materials to prevent generation of acids in the process.

Chair Hutchison asked what the draft rules would say about open mine pits. Mr. Turnbaugh indicated that these rules do not yet address water quality issues associated with the pit. Reclamation of pit areas is a responsibility of the Dept. of Geology and Mineral Industries. The groundwater section will be looking at groundwater impacts in more detail. The Department will also be looking at the relationship to solid waste and hazardous waste rules. Mr. Turnbaugh also indicated that an effort was being made to mesh closure requirements with the reclamation requirements of the Department of Geology and Mineral Industries.

Commissioner Lorenzen noted that the rules as drafted appropriately apply equally to operations on federal lands as well as operations on private lands.

1. Discussion of Phosphorous Ban

This work session item was a discussion of the report and recommendations prepared by the Task Force on Phosphorus and Water Quality. SB 1079 passed by the 1989 legislature directed the Department to appoint a task force to develop a report on phosphorus and other nutrients in state waters, and on the impacts of a potential statewide phosphate detergent ban, and to report to the 1991 legislature. The Task Force met between August 1990 and January 1991.

Dr. Benno Warkentin, Chair of the Water Resources Research Institute at Oregon State University, and Chair of the Task Force, presented an overview of the Task Force Report on Phosphorus and Water Quality, how it was developed, and the major findings. The findings addressed the following topics: Nutrients, Algal Growth and Water Quality; Sources of Nutrients in Surface Water and Municipal Wastewater; Control of Phosphorus in Wastewater; and Effects of a Phosphate Detergent Ban. The Task Force decided not to make a recommendation on a phosphate detergent ban because SB 1079 asked for findings, and because the Task Force was not able to make a unanimous recommendation.

Neil Mullane, Manager of the Water Quality Standards and Assessments Section stated that the Department would like to make a recommendation to the legislature in favor of a phosphate detergent ban. The Department concluded there was adequate information to support a statewide ban on phosphate detergents and recommended that a ban be supported as a pollution prevention measure.

Paul Cosgrove, representing the Soap and Detergent Association, and an alternate member of the SB 1079 Task Force, testified against the Department's recommendation. He noted that the impact of a phosphate detergent ban on water quality is uncertain at best. He urged that recycling and reuse of wastewater be pursued in lieu of a phosphate detergent ban.

It was MOVED by Commissioner Wessinger that the Commission concur in the Department recommendation for a phosphate detergent ban. The motion was seconded by Commissioner Castle and approved.

Chair Hutchison and Neil Mullane expressed their appreciation to Dr. Warkentin and the Task Force members for their work.

2. Water Quality Program Status Report

Lydia Taylor, Administrator of the Water Quality Division, presented an overview of the priorities and concerns of the Water Quality Program. Major points were as follows:

- a. The Department places a high priority on development of TMDL's but timely development is not possible due to insufficient staff.
- b. Backlogs continue in the processing of permit applications. Efforts to reduce the backlogs are ongoing. Controversy, increasing complexity, and staffing difficulties continue to frustrate the effort to reduce backlogs. However, the Department expects to eliminate the backlog by the end of the year.
- c. The Department exercises oversight of the statewide on-site sewage disposal program. Counties operate the program pursuant to contracts in about 23 counties. DEQ operates the program in the remaining counties. The Department has a goal of acting on all applications within 3 weeks of receipt. This goal is difficult to meet during the spring and summer heavy construction season.
- d. The Department is improving coordination between grants, loans, and permits for municipal facilities.
- e. The Department continues to be concerned about a number of important activities that have no committed source of funding: assessment of lakes, estuaries, and oceans; instream water rights; wetlands; data acquisition, storage, and analysis.

Commissioner Castle asked for a reaction to the suggestion of Mr. Jones that the water quality program be returned to EPA. Ms. Taylor responded that federal funds support only about 25% of the costs of Oregon's water quality program efforts. If the program were returned to EPA, there would be a substantial reduction in effort due to a lack of funding for EPA efforts.

Commissioner Wessinger asked if there was any alternative to the TMDL process to address water quality problems. The Department responded that the TMDL process appears to be the best way to proceed, and that additional resources are necessary.

M. Director's Report (Oral Report)

Director Hansen reported on the following items:

1. Budget -- Pete Dalke, Administrator of the Management Services Division, reported that the Department is attempting to clarify the perception that the Budget for the Department includes a substantial increase. The apparent "significant increases" are the result of the quirks of the budget process which add funds dispensed to local governments through the State Revolving Loan Fund and Pollution Control Bond Fund to the Department budget. Director Hansen noted that the Legislative Fiscal Office is seeking to identify further cuts in the Department budget, and was seeking to broaden the cuts to include funds in addition to general funds.
2. Dioxin -- The courts in the State of Washington have thrown out the process used by the State of Washington to list the Columbia River and other waters as water quality limiting for dioxin. Washington did not follow a process similar to that used in Oregon. Washington must now take another look at the standard, and the result could impact Oregon if Washington were to end up adopting a different number. Oregon's standard will still control in the Columbia River.
3. Household Hazardous Wastes -- Four cities have been approved as pilot projects for collection of household hazardous wastes. Under the program, the Department will provide guidance and contract with a company to receive and transport the waste. The local governments will provide the collection sites and do the advertising. The four cities are Corvallis, The Dalles, Newport, and Coos Bay.
4. Salt Caves Hydroelectric Project §401 Certification -- A decision on Salt Caves is expected to be finalized and announced within a week.
5. Oregon Environmental Council/Sierra Club Law Suit -- Steve Greenwood noted that since this was a matter in litigation, the Department would attempt to explain what the case is about without getting into the merits or pleading the Department's case. He advised that if the Commission wished to go into the merits, it should go into

executive session to discuss litigation. Wendy Sims, Air Quality Division, explained that the lawsuit alleges that DEQ failed to properly implement four rules: RACT, New Source Review Requirements, Highest and Best Practicable Treatment and Control, and Short Term Plant Site Emission Limits. She identified in each case where the differences of opinion or interpretation were without attempting to discuss the merits of the respective views. The Commission was advised that they would receive copies of all documents filed on the case.

There was no further business, and the meeting was adjourned at about 3:40 p.m.

REQUEST FOR EQC ACTION

Meeting Date: March 11, 1991
Agenda Item: B
Division: MSD
Section: Administration

SUBJECT:

Approval of Tax Credit Applications.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Potential Strategy, Policy, or Rules
 - Agenda Item for Current Meeting
 - Other: (specify)

- Authorize Rulemaking Hearing
- Adopt Rules
 - Proposed Rules Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Public Notice Attachment

- Issue a Contested Case Order
- Approve a Stipulated Order
- Enter an Order
 - Proposed Order Attachment

- Approve Department Recommendation
 - Variance Request Attachment
 - Exception to Rule Attachment
 - Informational Report Attachment
 - Other: (specify) Attachment

Tax credit application review report.



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



Meeting Date: March 11, 1991
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Tax Credit Application Review Reports:

TC-2036 Praegitzer Industries, Inc.	Fume scrubber, ducting, wiring and wastewater plumbing.
TC-2310 Boise Cascade Corporation	Landfill bentonite clay liner.
TC-2326 International Paper Co.	Modification and expansion of electrostatic precipitator.
TC-2411 Dow Corning Corporation	Modification to baghouse; installation of fan/ductwork; modification of furnace hood.
TC-2476 Weyerhaeuser Company	Electrified filter bed; fine dust control system.
TC-2533 Ernest & Ruth Glaser	Field flamer tandem axle attached to Cal gas tank.
TC-2576 Boise Cascade Corporation	Landfill leachate conveyance system.
TC-2680 Bill Terpening, Inc.	Installation of one fiberglass tank and piping, cathodic protection on four existing steel tanks and piping, spill containment basins, float vent valves, tank monitor, monitoring wells and line leak detectors.
TC-2794 Dennis Wirth	Straw storage shed.
TC-2855 Linnton Plywood Assoc.	Installation of cathodic protection on four steel tanks and piping, spill containment basins, tank monitor and monitoring wells.
TC-2965 Frank Lumber Company	Bark recovery and preparation facility.
TC-3069 Metrofueling, Inc.	Installation of leak detection and overflow prevention on four underground storage tanks in the form of automatic tank gauges and overflow alarm.

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TC-3073
Metrofueling, Inc.

Installation of leak detection and overfill prevention on five underground storage tanks in the form of automatic tank gauges and overfill alarm.

TC-3198
Merritt Truax, Inc.

Installation of leak detection and overfill prevention on four underground storage tanks in the form of automatic tank gauges and overfill alarm.

TC-3211
Merritt Truax, Inc.

Installation of leak detection and overfill prevention on five underground storage tanks in the form of automatic tank gauges and overfill alarm.

TC-3214
G & R Seeds

Installation of drainage tile.

TC-3281
David A. Doerfler

Kello-Built disc 29'; John Deere loader; dump rake 36'.

TC-3282
David A. Doerfler

1977 International tractor; 4450 John Deere tractor; Ford 60FW tractor; 1985 Peterbilt truck; 1984 Freightliner truck; and 3 trailers.

TC-3283
John Duerst

Kello-Built disc 29; John Deere loader; dump rake 36'.

TC-3284
John Duerst

1977 International tractor; 4450 John Deere tractor; Ford 60FW tractor; 1985 Peterbilt truck; 1984 Freightliner truck; and 3 trailers.

TC-3286
Dennis D. Wirth

Ford tractor; John Deere flail chopper.

TC-3289
P-M Ranch, Inc.

Straw storage shed.

TC-3292
Ken W. Eichler

Straw storage shed.

TC-3296
Edwin J. Rohner

Straw storage shed.

Meeting Date: March 11, 1991
Agenda Item: B
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TC-3297 Pimm Farms, Inc.	Ford tractor; Bearcat II Steiger tractor.
TC-3298 Pimm Farms, Inc.	Three New Holland 858 round balers; Rugby 70 bale mover.
TC-3299 Howard Schwanke	505 New Holland baler; GMC 16' flatbed truck.
TC-3300 Oak Creek Farms, Inc.	Ford TW-35 tractor.
TC-3305 Shirtcliff Oil Company	Installation of seven fiberglass tanks and piping, spill containment basins, tank monitor system, turbine leak detectors, an overflow alarm and monitoring wells.
TC-3308 Don and Laura Christensen	Straw storage shed.
TC-3309 G & P Farms	24' straw rake.
TC-3310 Roy A. Bowers & Sons, Inc.	Straw storage shed.
TC-3311 Clyde Montgomery	Straw storage shed.
TC-3313 Jim's Market	Installation of three fiberglass tanks and piping, spill containment basins, float vent valves, monitoring/observation wells and underground preparation of the site for a tank monitor.
TC-3315 Bill Terpening, Inc.	New installation of five fiberglass tanks and piping, spill containment basins, tank monitor, float vent valves, overflow alarm, line leak detectors, breakaways, sumps, oil/water separator, Stage I & Stage II vapor recovery equipment and piping and monitoring wells.

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TC-3316 Truax Corporation, Inc.	Installation of one fiberglass/steel composite tank, fiberglass piping, cathodic protection anodes, spill containment basins, line leak detectors and automatic shutoff valves.
TC-3317 Truax Corporation, Inc.	Installation of cathodic protection on three steel tank and piping systems.
TC-3319 Truax Corporation, Inc.	Installation of epoxy tank lining in one tank and a spill containment basin.
TC-3320 Truax Corporation, Inc.	Installation of epoxy tank lining in four steel tanks, spill containment basins and automatic shutoff valves.
TC-3321 Truax Corporation, Inc.	Installation of cathodic protection anodes on four tanks and piping, spill containment basins, line leak detectors and automatic shutoff valves.
TC-3322 Truax Corporation, Inc.	Installation of fiberglass piping in four tank systems, spill containment basins and line leak detectors.
TC-3323 Truax Corporation, Inc.	Installation of epoxy tank lining in three tanks, spill containment basins and automatic shutoff valves.
TC-3328 Truax Corporation, Inc.	Installation of three fiberglass/steel composite tanks, fiberglass piping, spill containment basins, line leak detectors, automatic shutoff valves, sumps and monitoring wells.
TC-3331 Truax Corporation, Inc.	Installation of three fiberglass/steel composite tanks, fiberglass piping, cathodic protection anodes, spill containment basins, line leak detectors, sumps and monitoring wells.
TC-3350 Peter Kryl	Installation of epoxy lining in one steel tank and spill containment basins.

Meeting Date: March 11, 1991
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TC-3351
Wilson Motors, Inc.

Installation of epoxy tank lining, cathodic protection on tanks and piping, spill containment basins, tank monitor and monitoring wells.

TC-3352
Western Stations Co., Inc.

Installation of two STI-P3 tanks and one dual containment double wall steel/plastic composite tank, fiberglass piping, spill containment basins, tank monitor, float vent valves, overflow alarm, monitoring wells and Stage I & II vapor recovery equipment and piping.

TC-3353
Powell Dist. Co., Inc.

Installation of plastic/steel composite tanks, double wall fiberglass piping, spill containment basins, tank monitor, line leak detectors and piping for Stage II vapor recovery.

TC-3354
Everett E. Miles, Jr.

Installation of four STI-P3 tanks, fiberglass piping, spill containment basins, float vent valves, tank monitor, line leak detectors and monitoring wells.

DESCRIPTION OF REQUESTED ACTION:

Issue Tax Credit Certificates for Pollution Control Facilities.

AUTHORITY/NEED FOR ACTION:

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

Meeting Date: March 11, 1991
Agenda Item: B
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DEVELOPMENTAL BACKGROUND:

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

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

PROGRAM CONSIDERATIONS:

None.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

None.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends the Environmental Quality Commission approve certification for tax credit applications identified above.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Yes.

Note - Pollution Tax Credit Totals:

Proposed March 11, 1991 Totals

	<u>Certified Costs*</u>	<u># of Certificates</u>
Air Quality	\$ 7,946,351	24
Hazardous/Solid Waste	0	0
Noise	0	0
Underground Storage Tanks	985,947	23
Water Quality	628,338	2
TOTAL	\$ 9,560,636	49

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1991 Calendar Year Totals through January 31, 1991

	<u>Certified Costs*</u>	<u># of Certificates</u>
Air Quality	\$ 218,341	7
Hazardous/Solid Waste	36,617	1
Noise	0	0
Underground Storage Tanks	365,560	12
Water Quality	0	0
TOTAL	**\$ 620,518	20

* This amount represents the amount of the facility costs that are allocable to pollution control. To calculate the actual dollars that can be applied as credit, multiply the amount by 50 percent.

** This amount has been adjusted to account for application TC 3241 which was denied.

INTENDED FOLLOWUP ACTIONS:

Notify applicants of Environmental Quality Commission actions.

Approved:

Section: _____
Division: P. L. A. Salter
Director: Jell H. Hester

Report Prepared By: Roberta Young

Phone: 229-6408

Date Prepared: February 19, 1991

RY:y
MY101210
February 19, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Praegitzer Industries, Inc.
1270 Monmount Cut-Off Road
Dallas, OR 97338

The applicant owns and operates an electronics plant fabricating printed circuit boards in Dallas, Oregon.

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

2. Description of Facility

The claimed facility, consisting of a fume scrubber, ducting, associated wiring, and fresh and waste water plumbing, was installed by the applicant to reduce acidic and caustic fumes emitted from plating, etching and stripping operations. This facility replaces a similar unit that received Pollution Control Certificate No. 1824 but was lost in a fire on August 13, 1987.

Claimed Facility Cost: \$124,683.62
(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. Installation of the facility was substantially completed on December 1988 and the application for final certification was found to be complete on November 1990 within 2 years of substantial completion of the facility.

4. Evaluation of Application

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

The claimed facility qualifies for tax credit in accordance with Oregon Administrative Rule (OAR 340-16-025(3)(g)(B) since it replaces a certified facility before the end of its useful life. Section - 025 of the rule states: "'Pollution control facility" or "facility" does not include:

- 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:
- (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."

b. Eligible Cost Findings

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

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

The facility does not recover or convert waste products into a salable or usable commodity.
- 2) The estimated annual percent return on the investment in the facility.

There is no return on investment. The collected material is neutralized and drained to the sanitary sewer system.
- 3) The alternative methods, equipment and costs for achieving the same pollution control objective.

There is no known alternative.
- 4) Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

There is no savings from the facility. The cost of maintaining and operating the facility is \$21,000 annually.
- 5) Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or properly disposing of used oil.

The claimed facility replaced a similar facility lost in a fire and is eligible for the remainder of the tax credit certified to the original facility. The original certification was:

Certificate No. 1824
Air Pollution Control Facility Actual
Cost of Pollution Control Facility: \$92,016.00
Percent of actual cost properly allocable
to pollution control: 100%
Approved by the Environmental Quality Commission on
November 22, 1985.

The amount of allocable cost already received is: \$19,372 (1986, \$4,843 tax credit received + 1987, \$4,843 tax credit received = \$9,686 total tax credit received; $\$9,686 \times 2 = \$19,372$ allocable cost received). The Actual Cost of Pollution Control Facility remaining is: $\$92,016 - \$19,372 = \$72,644.00$.

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

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the sole purpose of the facility is to control a substantial quantity of air pollution.
- 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 \$72,644.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2036.

Ray Potts:a
PO\AH11831
(503) 229-6093
1/16/91

Application No. T-2310

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Boise Cascade Corporation
Paper Group
1300 Kaster Road
St. Helens, Oregon 97051

The applicant owns and operates a pulp and paper mill in St. Helens, Oregon.

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

2. Description of Facility

This application is for a bentonite clay liner placed in the bottom of the mill's landfill to prevent landfill leachate from entering the groundwater. The landfill is used for disposal of clarifier solids from the mill's primary wastewater treatment system.

Claimed Facility Cost: \$166,428
(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 has met the statutory timeframes. The application for final certification was submitted within 2 years of substantial completion of the facility. Construction of the bentonite liner was substantially completed on December 1, 1987. The applicant was notified that the application was considered complete as of November 24, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with requirements imposed by the Department and the Environmental Protection Agency, to prevent groundwater pollution. This requirement is to comply with Oregon Administrative Rules 340-40-001 and Solid Waste Permit No. 1127.

Boise Cascade has coordinated with the Department as they have proposed to add additional disposal capacity to their landfill site. They have proposed to add new disposal areas in a phased manner. The Department has required these new disposal areas to be lined to protect groundwater at the beginning of each phase of the expansion.

Groundwater samples from ten monitoring wells will be used to monitor groundwater quality and confirm that the landfill liner is meeting its objectives.

- b. Eligible Cost Findings

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

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

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

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

There will be no return on investment from this facility because it will not generate any revenue.

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

The applicant did not identify any alternative methods.

The bentonite liner is intended to prevent landfill leachate from migrating into groundwater below the landfill site. Other compacted soil liners could be used for the same purpose, however, bentonite is the most commonly used material. The most important factor for low permeability soil liners is the hydraulic conductivity of the liner. The design hydraulic conductivity for this liner was 10^{-7} cm/second.

In meeting the Department's newly adopted groundwater protection rules, the need for composite liner systems (low permeability soil liners coupled with synthetic liners) will have to be evaluated. Site factors such as hydrogeology, soils, and leachate quality and quantity would be considered by the Department before a single or a composite liner would be approved for a specific application. The bentonite liner used at the Boise Cascade landfill was approved and constructed before the Department's new groundwater protection rules were adopted.

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

There are no savings or increases in operation and maintenance costs associated with the landfill liner.

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

There are no other factors to consider.

The actual proportion of the cost of the facility properly allocable to pollution prevention as determined by using the above factors is 100 percent.

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department and the federal Environmental Protection Agency to prevent groundwater 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 percent.

6. Director's Recommendation

Based upon these findings, the Department recommends that a Pollution Control Facility Certificate, bearing the cost of \$ 166,428 with 100 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2310.

(Kenneth M. Vigil)(crw)
(IW\WC7061)
(503) (229-5256)
(9-4-90)

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

International Paper Co.
Industrial Packaging Group
P O Box 854
Gardiner, OR 97441

The applicant owns and operates a pulp and paper mill near Gardiner, Oregon.

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

2. Description of Facility

The claimed facility is a modification and expansion of the electrostatic precipitator serving the No. 1 & No. 3 recovery boilers. This includes increased cross sectional area, addition of two transformer rectifiers, replacement of smaller collector plates with larger, replaced electrodes, and installation of combined inlet gas duct for balanced loading.

Claimed Facility Cost: \$4,202,374
(Accountant's Certification was provided).

3. Procedural Requirements

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

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed July 29, 1987.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Installation of the facility was substantially completed on March 31, 1989 and the application for final certification was found to be complete on November 16, 1990, within 2 years of substantial completion of the facility.

4. Evaluation of Application

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

This reduction is accomplished by redesign to eliminate air contaminants, as defined in ORS 468.275.

The original electrostatic precipitator was installed in 1973 as a two-chamber unit with three mechanical fields in each chamber. In 1979 an additional field was added to each chamber. With increased production, duct and stack velocities increased and precipitator particulate removal performance decreased until the mill did not meet EPA/DEQ compliance standards at normal operating rates.

The claimed modifications currently allow the mill to operate within opacity and grain loading requirements of their operating permit.

b. Eligible Cost Findings

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

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

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

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

There is no return on investment because there are no economic benefits from these installations.

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

- 1) Modification internally at an estimated cost of \$3,574,000. Modification would not be most efficient available.

- 2) Installation of new single cell electrostatic precipitator dedicated to No. 3 recovery boiler. The existing precipitator would then be dedicated to the No. 1 recovery boiler. Estimated cost is \$6,000,000.

- 3) Installation of a new two-cell precipitator at an estimated cost of \$10,000,000.

The modification decided on allows gain to maximum efficiency from existing precipitator in order to meet existing EPA/DEQ requirements.

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

There is no savings from the facility. The cost of maintaining and operating the facility is \$16,100.00 annually.

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

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

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

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the sole purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the redesign to eliminate air pollutants as defined in ORS 468.700.
- c. The facility complies with DEQ statutes, 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 \$4,202,374.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2326.

Robert Harris:llj
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(503) 229-5259
(12/20/90)

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Dow Corning Corp.
Springfield Plant
1801 Aster Street
Springfield OR 97477

The applicant owns and operates a primary smelting facility producing chemical grade silicon metal in Springfield, Oregon.

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

2. Description of Facility

Claimed facility consists of modification to the No. 3 furnace main baghouse, installation of new fan and ductwork on No. 3 furnace tap and modification to No. 3 furnace hood and tap hood to assist in fume capture.

Claimed Facility Cost: \$644,868
(Accountant's Certification was provided).

3. Procedural Requirements

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

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed December 9, 1987.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Construction of the facility was substantially completed on November 15, 1988 and submitted on November 14, 1990, within 2 years of substantial completion of the facility. The application for final certification was found to be complete on November 14, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with an administrative order imposed by the Lane Regional Air Pollution Authority to reduce air pollution.

This reduction is accomplished by redesign to eliminate air contaminants as defined in ORS 468.275.

Throughout the first half of 1987 the Springfield plant experienced periods where the site was not in compliance with their air discharge permit. The main contributor was the loss of fume at the No. 3 tap hood with some more minor problems at the No. 3 furnace hood. Numerous attempts were made to improve the dust collection system with some partial improvement notices. However, this site was fined by Lane Regional Air Pollution Authority and placed under administrative orders to develop a compliance plan that will allow the site to operate in compliance. This facility is for completion of the compliance plan submitted and approved by LRAPA. This project addresses both the No. 3 tap hood and the No. 3 furnace hood. These modifications satisfy the LRAPA administrative order.

- 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.

Most material collected by the facility is disposed of in a landfill, however;

A portion of the waste product is converted into a salable commodity consisting of silica fume which is used as a concrete additive or high temperature insulator.

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

Average annual cash flow is a negative (\$277,028.00), because annual operating expenses exceed annual income. This results from the value of the saleable material less operating costs. Dividing the annual average negative cash flow into the cost of the facility gives a zero return on investment. As a result, the percent allocable would be 100%.

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

Extending No. 3 baghouse by approximately 60% (adding 6 compartments) and continuing to use conventional bags was not chosen because the conventional bags "blind" and eventually performance deteriorates.

New technology bags (Goretex) allowed retention of existing baghouse design improved baghouse performance, and longer expected life of bags leading to lower overall operating costs while reducing fugitive emissions.

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

There is no savings from the facility. The cost of maintaining and operating the facility is \$277,028.00

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

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

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

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the principal purpose of the facility is to comply with an administrative order imposed by Lane Regional Air Pollution Authority to reduce air pollution.
- c. The facility complies with LRAPA statutes, rules, Commission orders, 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 \$644,868.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2411.

Robert C. Harris:llj
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(12/24/90)

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Weyerhaeuser Company
Springfield Particleboard
P O Box 275
Springfield, OR 97477

The applicant owns and operates a particleboard manufacturing facility in Springfield, Oregon.

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

2. Description of Facility

The claimed facility is an Electrified Filter Bed (EFB) Fine Dust Control (FDC) system composed of two (2) modules. Each particleboard pre-dryer is equipped with an independent and electrically isolated module. Flue gas previously discharged from the primary cyclonic separator is collected and "processed" in the EFB system. First, the largest of the particulate is removed in a pair of long cone, high efficiency cyclones. Air discharged from the secondary cyclones then passes to the EFB module. The entire gas stream passes through the ionizing section where particulate and condensed organics are vested with a negative charge produced by a high voltage (40,000 VDC) corona (electron stream). The velocity of the airstream is then reduced and filtered as it passed through the gravel bed. The basaltic pea gravel which makes up the filter media is polarized by a high voltage (20,000 VDC) positive electrode. As the negative charged pollutant passes through the polarized gravel medium, weak electrostatic forces bond the pollutant to the positive pole of the gravel.

Claimed Facility Cost: \$2,018,632
(Accountant's Certification was provided).

3. Procedural Requirements

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

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed March 25, 1988.

- b. The request for preliminary certification was approved before application for final certification was made.
- c. Installation of the facility was substantially completed on November 28, 1988 and the application for final certification was found to be complete on November 21, 1990 within 2 years of substantial completion of the facility.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by an administrative order issued by the Lane Regional Air Pollution Authority dated 30 October 1988.

This emission reduction is accomplished by the elimination of air contaminants, as defined in ORS 468.275.

Prior to completion of the EFB system, fine particulate matter, aerosols and condensing organics were discharged to the atmosphere. Each dryer emitted an average of 43 pounds per hour. Opacities ranged from 30-35%.

After completion, testing showed each dryer emitting approximately 7.5 pounds per hour. This is an emission reduction of about 80%. Opacities averaged 15%.

b. Eligible Cost Findings

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

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

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

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

There is no return on investment from this facility because there are no economic benefits from this installation.

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

At the beginning of the project, a team of technical people was organized to evaluate five types of pollution control equipment:

- 1) B.A.C.T. Scrubber
- 2) Ceilcote Scrubber - est. cost \$3,705,000.00
- 3) United McGill Scrubber
- 4) EFB - est. cost \$1,942,000.00
- 5) Anderson 2000 H.E.A.F. - est. cost \$1,879,000.00

B.A.C.T. declined to propose. Ceilcote and United McGill Scrubbers were eliminated due to operational concerns as well as the aqueous pollution problem. The EFB system was selected over the H.E.A.F. due to the advantages of low pressure drop and dry pollutant separation.

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

There is no savings from the facility. The cost of maintaining and operating the facility is \$85,000.00 annually.

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

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

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

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Lane Regional Air Pollution Authority to reduce air pollution.
- c. The facility complies with Commission orders.

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 \$2,018,632.00, with 100% allocated to pollution control be issued for the facility claimed in Tax Credit Application No. T-2476.

Robert C. Harris:llj
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(12/24/90)

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Ernest and Ruth Glaser
Ernest Glaser, Inc.
29245 Seven Mile Lane
Shedd, Oregon 97377

The applicant owns and operates a grass seed farm operation in Shedd, 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 Field Flamer Tandem Axle attached to a Cal gas tank, located at 29245 Seven Mile Lane, Shedd, Oregon. The equipment is owned by the applicant.

Claimed equipment cost: \$6,565
(The applicant provided proof of purchase copies.)

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

Prior to using alternative methods such as baling, vacuuming, propane flaming, and plowing, the applicant states that he open field burned as many of his 1,500 perennial and 500 annual grass seed acres as the weather and smoke management program permitted.

During the 1990 field burning season the applicant refrained from open field burning approximately 1,300 acres. The applicant estimated that 300 acres were not open field burned due to the use of the propane flamer.

4. Procedural Requirements

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

Purchase of the equipment was substantially completed on August 1, 1988, and the application for final certification was found to be complete on December 18, 1990. The application was submitted within two years of substantial purchase of the equipment. The request for preliminary certification was approved on July 7, 1988.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): (B): "Propane flammers or mobile field sanitizers which are alternatives to open field burning and reduce air quality impacts."

- b. Eligible Cost Findings

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

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

The equipment does not recover or convert waste products into a salable or usable commodity. The residue and stubble left after baling off the straw is disposed of by propane flaming.

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

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

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

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

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

There is an increase in operating costs of \$8,280 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.

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

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 for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 100%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$6,565, with 100% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-2533.

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

JB:bmTC2533
December 20, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Boise Cascade Corporation
Paper Group
1300 Kaster Road
St. Helens, Oregon 97051

The applicant owns and operates a pulp and paper mill in St. Helens, Oregon.

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

2. Description of Facility

This application is for a landfill leachate conveyance system. The system consist of pipes, pumps, and associated appurtenances used to transport landfill leachate from the landfill site to the City of St. Helens' sewage treatment plant. The landfill is used for disposal of clarifier solids from the mill's primary wastewater treatment system.

Claimed Facility Cost: \$461,910 (adjusted downward from the original claimed amount of \$511,850 due to ineligible sewer hook-up charges). (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 has met the statutory timeframes. The application for final certification was submitted within 2 years of substantial completion of the facility. Construction of the leachate conveyance system was substantially completed on October 31, 1988. The applicant was notified that the application was considered complete as of February 28, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with requirements imposed by the Department and the Environmental Protection Agency, to prevent groundwater pollution. This requirement is to comply with Oregon Administrative Rules 340-40-001 and Solid Waste Permit No. 1127.

The leachate conveyance system will transport leachate to a treatment facility to prevent it from migrating into the groundwater. Previously, leachate was applied to nearby land using spray irrigation. This practice was discontinued to prevent the contamination of groundwater and to prevent runoff from contaminating surface waters.

b. Eligible Cost Findings

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

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

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

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

There is no return on investment from this facility since it will not generate any revenue.

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

The applicant did not identify alternative methods. The methods and materials used are acceptable standards for this application.

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

There are no savings or increases in operation and maintenance costs associated with the landfill liner.

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

There are no other factors to consider.

The actual proportion of the cost of the facility properly allocable to pollution prevention as determined by using the above factors is 100 percent.

However, one of the itemized costs (\$49,940) was for hook-up charges to the City of St. Helens' sewer system. This is an administrative cost that is not eligible for tax credit benefit. The allowable cost for tax credit benefit is:

$$(\$511,850 - \$49,940) = \$461,910$$

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department and the federal Environmental Protection Agency to prevent groundwater 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 percent.

6. Department's Recommendation

Based upon these findings, the Department recommended that a Pollution Control Facility Certificate, bearing the cost of \$461,910 with 100 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2576.

(Kenneth M. Vigil)(CRW)
(IW\WC7526)
(503)(229-5256)
(December 6, 1990)

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Bill Terpening, Inc.
936 S. Central
Medford, OR 97501

The applicant leases and operates a cardlock at 150 Lowe Road, Medford OR, facility no. 9318.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of one fiberglass tank and piping, cathodic protection on four existing steel tanks and piping, spill containment basins, float vent valves, tank monitor, monitoring wells and line leak detectors.

Claimed facility cost \$ 77,169
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on August 6, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was operated continuously during construction.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - One fiberglass tank and piping and cathodic protection (anodes) on four steel tanks.
- 2) For spill and overflow prevention - Spill containment basins and float vent valves.
- 3) For leak detection - Tank monitor, line leak detectors and monitoring wells.

The applicant also installed an oil/water separator system.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$77,169) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Fiberglass tank & piping	\$ 6,681	40%(1)	\$ 2,672
Anodes	710	100	710
Spill & Overflow Prevention:			
Spill containment basins	1,363	100	1,363
Float vent valves	123	100	123
Leak Detection:			
Tank monitor	8,351	90 (2)	7,516
Line leak detectors	147	100	147
Monitoring wells	518	100	518
Oil/water separator	18,240	100	18,240
Labor & materials (does not include cost of installing added tanks & piping)	<u>41,036</u>	<u>100 (3)</u>	<u>41,036</u>
Total	\$77,169	94%	\$72,325

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank and piping system by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected system cost is \$6,681 and the bare steel system is \$3,988, the resulting portion of the eligible tank and piping cost allocable to pollution control is 40%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) The cost of installing the additional tank and piping is not included since that cost would have been incurred regardless of pollution control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 94%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$77,169 with 94% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-2680.

Barbara J. Anderson:ew
(503) 229-5870
January 28, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Dennis D. Wirth
31595 Driver Road
Tangent, Oregon 97389

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

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

2. Description of Claimed Facility

The facility described in this application is a 22' x 106' x 144' grass seed straw storage shed and is located at 31595 Driver Road, Tangent, Oregon. The land and buildings are owned by the applicant.

Claimed facility cost: \$57,238.80
(Accountant's Certification was provided.)

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

The applicant has 644 perennial acres and 480 annual acres under grass seed cultivation. Before purchasing removal equipment and the straw storage shed, the applicant open field burned as many acres as possible subject to the weather and the smoke management program.

With the addition of the straw storage shed the applicant can contract with a baler to remove the straw from approximately 350 acres, providing him with the storage necessary to maintain it in a usable condition.

4. Procedural Requirements

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

Construction of the facility was substantially completed on May 25, 1989, and the application for final certification was found to be complete on December 6, 1990, within two years of substantial completion of the facility. The request for preliminary certification was approved on March 20, 1989.

5. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

In determining the percent of the pollution control 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 promotes the conversion of a waste product (straw) into a usable commodity by providing storage of grass straw for future use.

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

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 installation of the facility.

There is an increase in operating costs of \$1,000 to annually maintain and operate the facility. 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 facility properly allocable to the prevention, control or reduction of air pollution.

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

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

6. 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 reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility that is properly allocable to pollution control is 100%.

7. Reviewer's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$57,238.80, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-2794.

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

JB:bmTC-2794
December 10, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Linnton Plywood Association
10504 NW St. Helens Rd.
Portland, OR 97231

The applicant owns and operates a plywood plant at 10504 NW St. Helens Rd, Portland OR, facility no. 5246.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of cathodic protection on four steel tanks and piping, spill containment basins, tank monitor and monitoring wells.

Claimed facility cost (Accountant's certification was provided)	\$ 36,648
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on September 30, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on September 30, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Cathodic protection on steel tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins.
- 3) For leak detection - Tank monitor and monitoring wells.

The applicant reported that soil testing was performed at the time of the project and some contaminated soil was removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$35,950. This represents a difference of \$698 from the applicant's claimed cost of \$36,648 due to a determination by the Department that the cost of soil cleanup (\$698) is not eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Cathodic protection	\$15,840	100%	\$15,840
Spill & Overfill Prevention:			
Spill containment basins	750	100	750
Leak Detection:			
Tank monitor	5,000	90 (1)	4,500
Monitoring wells	300	100	300
Labor & materials	<u>14,060</u>	<u>100</u>	<u>14,060</u>
Total	\$35,950	99%	\$35,450

(1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 99%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$35,950 with 99% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-2855.

Barbara J. Anderson:ew
(503) 229-5870
January 29, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Frank Lumber Company, Inc.
47983 Lyons - Mill City Dr.
Mill City, OR 97360

The applicant owns and operates a lumber manufacturing facility in Mill City, Oregon.

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

2. Description of Facility

The claimed facility is a bark recovery and preparation facility designed to remove fines from bark which results in lower particulate emissions from the hogged fuel boiler

Claimed Facility Cost: \$65,429.95
(Accountant's Certification was provided).

3. Procedural Requirements

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

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed June 1, 1989, more than 30 days before construction commenced on July 21, 1989.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Construction of the facility was substantially completed on November 1, 1989. The application for final certification was received on September 6, 1990, within 2 years of substantial completion of the facility. The application was found to be complete on November 21, 1990.

4. Evaluation of Application

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

Previously all fuel was hogged, or ground up into smaller pieces, prior to being fed to the boiler. The hogging process generated a substantial quantity of fines in the hogged fuel which lowered the efficiency of the combustion process which was trying to simultaneously burn the small fines and the larger chunks of fuel. This resulted in some fines passing through the combustion chamber unburned, increasing the particulate concentration passing out the boiler exhaust stack. The new facility screens the boiler fuel prior to going to the hog so only the fuel actually needing a size reduction enters the hog and less fines are generated at the hog. Fewer fines are in the hogged fuel fed to the boiler, combustion efficiency increases resulting in less fuel for an equivalent amount of steam, and there is lower particulate concentration passing out the boiler exhaust stack.

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.

Prior to installation of this facility, fines were recovered from the fuel and sold as animal bedding and agricultural mulch. When the quantity of fines generated were too great to be sold, the excess were transported to a landfill. The new facility reduces the total amount of fines generated and sold.

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

There is no percent return on investment from this facility because there is no gross annual income from the facility.

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

Applicant considered installation of a bark dryer. The cost was estimated in excess of \$500,000 in capital cost plus additional operating costs of approximately \$18,000. The cost was judged excessive at the time.

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

There may be a slight savings from fewer instances of having to pay for landfill disposal of excess fines but the average annual operating expenses of \$20,662 would easily exceed the possible savings.

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

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

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

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the sole purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the redesign to eliminate air contaminants as defined in ORS 468.275.
- 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 \$65,429.95 with 100 % allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2965.

John J. Ruscigno:a
PO\AH11412
(503) 229-6480
11/27/90

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Metrofueling, Inc.
PO Box 2099
Salem, OR 97308

The applicant owns and operates a cardlock at 3037 NW 29th, Portland OR, facility no. 3617.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overflow prevention on four underground storage tanks in the form of automatic tank gauges and overflow alarm.

Claimed facility cost	\$10,060
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on July 31, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on August 1, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four bare steel underground storage tanks with no corrosion protection, overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For spill and overflow prevention - Overflow alarm.
- 2) For leak detection - Automatic tank gauges.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$10,033. This represents a difference of \$27 from the applicant's claimed cost of \$10,060 due to a determination by the Department that the cost of the overflow alarm was claimed at the list price rather than the discount price.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill Alarm	\$ 83	100%	\$ 83
Leak Detection:			
Automatic tank gauges	4,768	90 (1)	4,291
Labor & materials	<u>5,182</u>	<u>100</u>	<u>5,182</u>
Total	\$10,033	95%	\$ 9,556

- (1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$10,033 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3069.

Mary Lou Perry:ew
(503) 229-5731
January 30, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Metrofueling, Inc.
PO Box 2099
Salem, OR 97308

The applicant owns and operates a cardlock at 8100 NE Union, Portland OR, facility no. 6569.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overflow prevention on five underground storage tanks in the form of automatic tank gauges and overflow alarm.

Claimed facility cost	\$13,501
(Documentation of cost was provided)	
Percent allocable to pollution control	100%

3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on October 1, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on October 1, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel underground storage tanks with no overfill prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For spill and overfill prevention - Overfill alarm.
- 2) For leak detection - Automatic tank gauges.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$13,398. This represents a difference of \$103 from the applicant's claimed cost of \$13,501 due to a determination by the Department that the cost of the manhole covers and overfill alarms were claimed at the list price rather than the discount price.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Spill & Overfill Prevention:			
Overfill Alarm	\$ 83	100%	\$ 83
Leak Detection:			
Automatic tank gauges	5,566	90 (1)	5,009
Labor & materials	<u>7,749</u>	<u>100</u>	<u>7,749</u>
Total	\$13,398	96%	\$12,841

- (1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 96%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$13,398 with 96% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3073.

Mary Lou Perry:ew
(503) 229-5731
January 30, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
PO Box 2099
Salem, OR 97308

The applicant owns and operates a cardlock at 205 Columbia St. NE, Salem OR, facility no. 3613.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overflow prevention on four underground storage tanks in the form of automatic tank gauges and overflow alarm.

Claimed facility cost	\$13,862
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on January 17, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on January 18, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel underground storage tanks with no corrosion protection, overfill prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For spill and overfill prevention - Overfill alarm.
- 2) For leak detection - Automatic tank gauges.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$13,768. This represents a difference of \$94 from the applicant's claimed cost of \$13,862 due to a determination by the Department that the cost of manhole covers was claimed at the list price rather than the discount price.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Spill & Overfill Prevention:			
Overfill Alarm	\$ 110	100%	\$ 110
Leak Detection:			
Automatic tank gauges	7,170	90 (1)	6,453
Labor & materials	<u>6,488</u>	<u>100</u>	<u>6,488</u>
Total	\$13,768	95%	\$13,051

- (1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$13,768 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3198.

Mary Lou Perry:ew
(503) 229-5731
January 30, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Merritt Truax, Inc.
PO Box 2099
Salem, OR 97308

The applicant owns and operates a cardlock at 3175 W. 11th, Eugene OR, facility no. 6436.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of leak detection and overflow prevention on five underground storage tanks in the form of automatic tank gauges and overflow alarm.

Claimed facility cost	\$12,824
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on February 22, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on February 23, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five bare steel underground storage tanks with no corrosion protection, overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For spill and overflow prevention - Overflow alarm.
- 2) For leak detection - Automatic tank gauge.

The applicant did not indicate if any soil assessment or tank tightness testing was accomplished before undertaking the project.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$12,733. This represents a difference of \$91 from the applicant's claimed cost of \$12,824 due to a determination by the Department that the cost of caps and adaptors was claimed at the list price rather than the discount price.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Spill & Overfill Prevention:			
Overfill Alarm	\$ 110	100%	\$ 110
Leak Detection:			
Automatic tank gauges	6,115	90 (1)	5,504
Labor & materials	<u>6,508</u>	<u>100</u>	<u>6,508</u>
Total	\$12,733	95%	\$12,122

- (1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 95%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$12,733 with 95% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3211.

Mary Lou Perry:ew
(503) 229-5731
January 30, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

G & R Seeds
Roger & Larry Ruckert
33660 Ridge Drive
Tangent, Oregon 97389

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

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

2. Description of Claimed Facility

The facility described in this application is an underground installation of perforated plastic tile to facilitate drainage on the acreage and at the addresses listed below. The land is owned by the applicant.

Parcel A	85 acres	29245 Seven Mile Lane Shedd, Oregon 97377	\$42,104
Parcel B	197 acres	33776 Ridge Drive Tangent, Oregon 97389	\$88,914.94
Parcel C	58 acres	33660 Ridge Drive Tangent, Oregon 97389	\$30,811

Claimed facility cost: \$161,829.94
(Accountant's Certification was provided.)

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

The applicant has 1,500 acres in mostly annual grass seed production. In recent years the applicant has registered an average of 1,200 acres annually for open field burning. All of their acreage was open field burned on a rotational basis.

By tiling the acreage addressed in this application drainage has been provided for approximately 340 acres. Tiling was selected by the applicant as the only way to allow alternate crops to be grown on land that was previously suitable only for grass seed crops. The applicants now have 340 acres of cropland suited for production of crops that do not require open field burning.

4. Procedural Requirements

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

Construction of the facility was substantially completed on November 10, 1990, and the application for final certification was found to be complete on December 19, 1990, within two years of substantial completion of the facility.

5. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(C): Drainage tile installations which will result in a reduction of grass seed acreage under production.

- 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 facility allows production of crops that do not require open field burning.

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

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

3. The alternative methods, facility 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 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 facility.

There is no savings or increase in costs as a result of the 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 pollution.

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

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

6. Summation

- a. The facility was purchased 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 reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility that is properly allocable to pollution control is 100%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$161,829.94, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-3214.

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

JB:bmTC3214
December 20, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

David A. Doerfler
13883 Doerfler Road SE
Silverton, Oregon 97381

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

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

2. Description of Claimed Facility

The equipment described in this application is located at 13512 Doerfler Road SE, Silverton, Oregon. The equipment is leased by the applicant. Ioka Farms, Inc., the holding company owned by David Doerfler and John Duerst, has released all interest in pollution control tax credits to David Doerfler and John Duerst as individuals. Applicant submitted an amended list of equipment on December 5, 1990, that removed all equipment not purchased by lessor within two years of the lessees date of application.

Kello-Built Disc 29'	\$16,350
John Deere Loader	3,800
Dump Rake 36'	2,150

The applicant requests certification of one-half of the actual cost of the equipment of \$44,600. Applicant and John Duerst are co-lessees and are filing separate tax credit applications. Certification of the remaining portion of the actual cost is addressed in TC-3283 and does not exceed the total cost of the equipment that could be certified under one certificate.

Claimed equipment cost: \$22,300
(Accountant's Certification was provided.)

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

The applicant has verified 900 acres of perennial grass seed varieties under cultivation. The applicant states that prior to 1988 he tried to open field burn as many of his acres as the weather and smoke management program would permit.

The applicant's alternative farm plan has evolved into two operations:

- 1) After harvest he bales off the straw and loads it for removal from the fields. The straw left after baling is swept with a 36' dump rake. The remaining stubble is flail chopped and the field is propane flamed.
- 2) After harvest the straw is baled, loaded, and removed from the field. The remaining stubble and straw is flail chopped and incorporated into the soil. The absence of open field burning shortens the stand life and increases the annual requirement for plowing by approximately 200 acres.

The John Deere loader loads straw bales for transportation and unloads for storage, the Dump Rake sweeps the fields of remaining straw, and the Kello-Built disc incorporates the straw into the soil.

With the advent of the initiative petitions in 1989, the applicant has made a commitment to a farm plan reducing open field burning by 450 acres utilizing these alternative methods.

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 21, 1990, and the application for final certification was found to be complete on December 14, 1990. The application was submitted within two years.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

b. Eligible Cost Findings

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

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

The equipment does not recover or convert waste products into a salable or usable commodity. The equipment is used to prepare fields for propane flaming or incorporation of straw into the soil.

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

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

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

The method chosen is an accepted method for reduction of air pollution. The 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 \$5,745 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 applicant is claiming a tax credit for a leased facility and has provided a copy of the written agreement between the lessor and lessee designating the applicant as the party to receive the tax credit. A copy of the complete and current lease agreement for the equipment was provided.

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 for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 100%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$22,300, with 100% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3281.

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

JB:bmTC3281
January 29, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

David A. Doerfler
13883 Doerfler Road SE
Silverton, Oregon 97381

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

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

2. Description of Claimed Facility

The equipment described in this application is located at 13512 Doerfler Road SE, Silverton, Oregon. The equipment is leased by the applicant. Ioka Farms, Inc., the holding company owned by David Doerfler and John Duerst, has released all interest in pollution control tax credits to David Doerfler and John Duerst as individuals. Applicant submitted an amended list of equipment on December 5, 1990 that removed all equipment not purchased by lessor within two years of the lessees date of application.

1977 International Tractor	\$2,250.00
4450 John Deere Tractor	18,375.00
Ford 60FW Tractor	11,000.00
1985 Peterbilt Truck	13,712.50
1984 Freightliner Truck	14,950.00
Trailers used with trucks	
#27 Serial #873617	1,500.00
#25 Serial #111724	1,275.00
#26 Serial #17107	1,275.00

The applicant requests certification of one-half of the actual cost of the equipment of \$128,675. Applicant and John Duerst are co-lessees and are filing separate tax credit applications. Certification of the remaining portion of the actual cost is addressed in TC-3284 and does not exceed the total cost of the equipment that could be certified under one certificate.

Claimed equipment cost: \$64,337.50
(Accountant's Certification was provided.)

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

The applicant has verified 900 acres of perennial grass seed varieties under cultivation. The applicant states that prior to 1988 he tried to open field burn as many of his acres as the weather and smoke management program would permit.

The applicant's alternative farm plan has evolved into two operations:

- 1) After harvest he bales off the straw and loads it for removal from the fields. The straw left after baling is swept with a 36' dump rake. The remaining stubble is flail chopped and the field is propane flamed. The straw collected by the dump rake is stack burned.
- 2) After harvest the straw is baled, loaded, and removed from the field. The remaining stubble and straw is flail chopped and incorporated into the soil. The absence of open field burning shortens the stand life of perennial grasses and increases the annual requirement for plowing by approximately 200 acres.

The tractors provide power to the implements used in the aforementioned alternatives and the trucks and trailers provide the transportation for moving the straw bales. In exchange for transportation expenses, the applicant gives the baled straw to Willamette Valley and Eastern Oregon users.

With the advent of the initiative petitions in 1989, the applicant has made a commitment to a farm plan reducing open field burning by 450 acres utilizing these alternative methods.

4. Procedural Requirements

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

Purchase of the equipment was substantially completed on May 31, 1990, and the application for final certification was found to be complete on December 17, 1990. The application was submitted within two years.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control

facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

b. Eligible Cost Findings

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

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

The trucks and trailers promote the conversion of a waste product (straw) into a usable commodity by providing transportation for the straw bales.

BUT

The tractors do not recover or convert waste products into a salable or usable commodity. The stubble left on the fields is disposed of by plowing under or propane flaming.

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 \$15,658 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 applicant is claiming a tax credit for a leased facility and has provided a copy of the written agreement between the

lessor and lessee designating the applicant as the party to receive the tax credit. A copy of the complete and current lease agreement for the equipment was provided.

The established average annual operating hours for tractors is set at 450 hours. To obtain a total percent allocable, the annual operating hours per implement per tractor used in reducing perennial acreage open field burned is as follows:

1977 International (72hp)

<u>Implement</u>	<u>Acres Worked</u>	<u>Capacity hrs/ac</u>	<u>Annual Operating hours</u>
Dump Rake	200	5	40
Water Tanks	600 (300 x 2)	50	<u>12</u>
Total annual operating hours			52

The total AOH of 52 divided by the AAOH of 450 produces a percent allocable of 12%.

4450 John Deere (140 hp)

Loader	225	3	75
Propane Flamer	600 (300 x 2)	10	60
Flail Mower	200	6	<u>33</u>
Total annual operating hours			168

The total AOH of 168 divided by the AAOH of 450 produces a percent allocable of 37%.

Ford 60FW (325 hp)

Kello-built disc	750 (250 x 3)	8	<u>94</u>
Total annual operating hours			94

The total AOH of 94 divided by the AAOH of 450 produces a percent allocable of 21%.

The applicant states that the principal use of the trucks is for straw transportation and they were purchased for that use. The applicant uses the trucks 45% of the annual operating hours for other farm uses. Applicant states that the trailers sole use is for straw transportation.

The determination of percent allocable for all equipment is displayed in the following table:

	Actual Claimed Cost	Percent Allocable	Amount Allocable
1977 International Tractor	\$2,250.00	12%	\$ 270.00
4450 John Deere Tractor	18,375.00	37%	6,798.75
Ford 600W Tractor	11,000.00	21%	2,310.00
1985 Peterbilt Truck	13,712.50	55%	7,541.88
1984 Freightliner Truck	14,950.00	55%	8,222.50
Trailers used with trucks #27	1,500.00	100%	1,500.00
" #25	1,275.00	100%	1,275.00
" #26	<u>1,275.00</u>	<u>100%</u>	<u>1,275.00</u>
Total	64,337.50	45%	29,193.13

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 45%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 45%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$64,337.50, with 45% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3282.

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

JB:bmTC3282
February 19, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

John Duerst
13512 Doerfler Road SE
Silverton, Oregon 97381

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

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

2. Description of Claimed Facility

The equipment described in this application is located at 13512 Doerfler Road SE, Silverton, Oregon. The equipment is leased by the applicant. Ioka Farms, Inc., the holding company owned by David Doerfler and John Duerst, has released all interest in pollution control tax credits to David Doerfler and John Duerst as individuals. Applicant submitted an amended list of equipment on December 5, 1990 that removed all equipment not purchased by lessor within two years of the lessees date of application.

Kello-Built Disc 29'	\$16,350
John Deere Loader	3,800
Dump Rake 36'	2,150

The applicant requests certification of one-half of the actual cost of the equipment of \$44,600. Applicant and David Doerfler are co-lessees and are filing separate tax credit applications. Certification of the remaining portion of the actual cost is addressed in TC-3281 and does not exceed the total cost of the equipment that could be certified under one certificate.

Claimed equipment cost: \$22,300
(Accountant's Certification was provided.)

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

- ✓ The applicant has verified 900 acres of perennial grass seed varieties under cultivation and farms a total of 2,500 acres of various crops. The applicant states that prior to 1988 he tried to open field burn as many of his acres as the weather and smoke management program would permit.

The applicant's alternative farm plan has evolved into two operations:

- 1) After harvest he bales off the straw and loads it for removal from the fields. The straw left after baling is swept with a 36' dump rake. The remaining stubble is flail chopped and the field is propane flamed.
- 2) After harvest the straw is baled, loaded, and removed from the field. The remaining stubble and straw is flail chopped and incorporated into the soil. The absence of open field burning shortens the stand life and increases the annual requirement for plowing by approximately 200 acres.

The John Deere loader loads straw bales for transportation and unloads for storage, the Dump Rake sweeps the fields of remaining straw, and the Kello-Built disc incorporates the straw into the soil.

With the advent of the initiative petitions in 1989, the applicant has made a commitment to a farm plan reducing open field burning by 450 acres utilizing these alternative methods.

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 21, 1990, and the application for final certification was found to be complete on December 14, 1990. The application was submitted within two years.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

b. Eligible Cost Findings

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

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

The equipment does not recover or convert waste products into a salable or usable commodity. The equipment is used to prepare fields for propane flaming or incorporation of straw into the soil.

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

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

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

The method chosen is an accepted method for reduction of air pollution. The 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 \$5,745 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 applicant is claiming a tax credit for a leased facility and has provided a copy of the written agreement between the lessor and lessee designating the applicant as the party to receive the tax credit. A copy of the complete and current lease agreement for the equipment was provided.

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 for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 100%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$22,300, with 100% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3283.

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

JB:bmTC3283
January 29, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

John Duerst
13512 Doerfler Road SE
Silverton, Oregon 97381

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

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

2. Description of Claimed Facility

The equipment described in this application is located at 13512 Doerfler Road SE, Silverton, Oregon. The equipment is leased by the applicant. Ioka Farms, Inc., the holding company owned by David Doerfler and John Duerst has released all interest in pollution control tax credits to David Doerfler and John Duerst as individuals. Applicant submitted an amended list of equipment on December 5, 1990 that removed all equipment not purchased by lessor within two years of the lessees date of application.

1977 International Tractor	\$2,250.00
4450 John Deere Tractor	18,375.00
Ford 60FW Tractor	11,000.00
1985 Peterbilt Truck	13,712.50
1984 Freightliner Truck	14,950.00
Trailers used with trucks	
#27 Serial #S73617	1,500.00
#25 Serial #111724	1,275.00
#26 Serial #17107	1,275.00

The applicant requests certification of one-half of the actual cost of the equipment of \$128,675. Applicant and David Doerfler are co-lessees and are filing separate tax credit applications. Certification of the remaining portion of the actual cost is addressed in TC-3282 and does not exceed the total cost of the equipment that could be certified under one certificate.

Claimed equipment cost: \$64,337.50
(Accountant's Certification was provided.)

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

The applicant has verified 900 acres of perennial grass seed varieties under cultivation and farms a total of 2,500 acres of various crops. The applicant states that prior to 1988 he tried to open field burn as many of his acres as the weather and smoke management program would permit.

The applicant's alternative farm plan has evolved into two operations:

- 1) After harvest he bales off the straw and loads it for removal from the fields. The straw left after baling is swept with a 36' dump rake. The remaining stubble is flail chopped and the field is propane flamed. The straw collected by the dump rake is stack burned.
- 2) After harvest the straw is baled, loaded, and removed from the field. The remaining stubble and straw is flail chopped and incorporated into the soil. The absence of open field burning shortens the stand life of perennial grasses and increases the annual requirement for plowing by approximately 200 acres.

The tractors provide power to the implements used in the aforementioned alternatives and the trucks and trailers provide the transportation for moving the straw bales. In exchange for transportation expenses, the applicant gives the baled straw to Willamette Valley and Eastern Oregon users.

With the advent of the initiative petitions in 1989, the applicant has made a commitment to a farm plan reducing open field burning by 450 acres utilizing these alternative methods.

4. Procedural Requirements

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

Purchase of the equipment was substantially completed on May 31, 1990, and the application for final certification was found to be complete on December 17, 1990. The application was submitted within two years.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013;

and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

b. Eligible Cost Findings

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

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

The trucks and trailers promote the conversion of a waste product (straw) into a usable commodity by providing transportation for the straw bales.

BUT

The tractors do not recover or convert waste products into a salable or usable commodity. The stubble left on the fields is disposed of by plowing under or propane flaming.

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 \$15,658 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 applicant is claiming a tax credit for a leased facility and has provided a copy of the written agreement between the

lessor and lessee designating the applicant as the party to receive the tax credit. A copy of the complete and current lease agreement for the equipment was provided.

The established average annual operating hours for tractors is set at 450 hours. To obtain a total percent allocable, the annual operating hours per implement per tractor used in reducing perennial acreage open field burned is as follows:

1977 International (72hp)

<u>Implement</u>	<u>Acres Worked</u>	<u>Capacity hrs/ac</u>	<u>Annual Operating hours</u>
Dump Rake	200	5	40
Water Tanks	600 (300 x 2)	50	<u>12</u>
Total annual operating hours			52

The total AOH of 52 divided by the AAOH of 450 produces a percent allocable of 12%

4450 John Deere (140 hp)

Loader	225	3	75
Propane Flamer	600 (300 x 2)	10	60
Flail Mower	200	6	<u>33</u>
Total annual operating hours			168

The total AOH of 168 divided by the AAOH of 450 produces a percent allocable of 37%.

Ford 60PW (325 hp)

Kello-built disc	750 (250 x 3)	8	<u>94</u>
Total annual operating hours			94

The total AOH of 94 divided by the AAOH of 450 produces a percent allocable of 21%.

The applicant states that the principal use of the trucks is for straw transportation and they were purchased for that use. The applicant uses the trucks 45% of the annual operating hours for other farm uses. Applicant states that the trailers sole use is for straw transportation.

The determination of percent allocable for all equipment is displayed in the following table:

	Actual Claimed Cost	Percent Allocable	Amount Allocable
1977 International Tractor	\$2,250.00	12%	\$ 270.00
4450 John Deere Tractor	18,375.00	37%	6,798.75
Ford 60FW Tractor	11,000.00	21%	2,310.00
1985 Peterbilt Truck	13,712.50	55%	7,541.88
1984 Freightliner Truck	14,950.00	55%	8,222.50
Trailers used with trucks #27	1,500.00	100%	1,500.00
#25	1,275.00	100%	1,275.00
#26	<u>1,275.00</u>	<u>100%</u>	<u>1,275.00</u>
Total	64,337.50	45%	29,193.13

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 45%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 45%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$64,337.50, with 45% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3284.

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

JB:bmTC3284
February 19, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Dennis D. Wirth
31595 Driver Road
Tangent, Oregon 97389

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

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

2. Description of Claimed Facility

The equipment described in this application is located at 31595 Driver Road, Tangent, Oregon. The equipment is owned by the applicant.

Ford Tractor (170 hp) \$58,000
John Deere Flail chopper \$4,000

Claimed equipment cost: \$62,000
(Accountant's Certification was provided.)

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

The applicant has 644 perennial acres and 480 annual acres under grass seed cultivation. Before the construction of a straw storage shed and purchase of removal and cultivation equipment, the applicant open field burned as many acres as possible subject to the weather and the smoke management program.

The purchase of the tractor provided the applicant with the horsepower to flail chop, disc, till, and plow down the residue on his annual acreage. The tractor also provides power to the stackhand to remove residue left after baling perennial fields.

4. Procedural Requirements

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

Purchase of the equipment was substantially completed on July 28, 1990, and the application for final certification was found to be complete on December 6, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

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

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

The equipment does not recover or convert waste products into a salable or usable commodity. Residue from annual fields is flail chopped, disced, tilled, and plowed under. Perennial fields have residue left after baling removed by the stackhand.

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 \$3,000 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 established average annual operating hours for tractors is set at 450 hours. To obtain a total percent allocable, the annual operating hours per implement used in reducing acreage open field burned is as follows:

Annual Acres			
<u>Implement</u>	<u>Acres Worked</u>	<u>Tractor Capacity ac/hr</u>	<u>Annual Operating Hours</u>
Flail Chopper	330	7	47
Plow	450	7	64
Harrow	700 (350 x 2)	7	100
Concrete roller	400	7	57
Cultimulcher	400	7	57
Land leveler	300	5	60
Crop disc	250	7	<u>36</u>
Annual operating hours			421
Perennial Acres			
Stackhand	50	5	<u>10</u>
Annual operating hours			<u>10</u>
Total operating hours			431

The total annual operating hours of 431 divided by the average annual operating hours of 450 produces a percent allocable of 96% or \$55,680. The percent allocable for the tractor (\$55,680) plus the percent allocable for the flail chopper of 100% (\$4,000) equals \$59,680. Total percent allocable (\$59,680) divided by the claimed equipment cost (\$62,000) produces a final percent allocable of 96%.

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 96%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 96%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$62,000, with 96% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3286.

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

JB:bmTC3286
December 10, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

P-M Ranch, Inc.
Philip Wolf, Mary Wolf
4689 Mahony Road NE
Gervais, Oregon 97026

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

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

2. Description of Claimed Facility

The facility described in this application is a 22' x 60' x 168' grass-seed straw storage facility and is located at 4689 Mahony Road NE, Gervais, Oregon. The land and buildings are owned by the applicant.

Claimed facility cost: \$48,504.18
(Accountant's Certification was provided.)

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

The applicants have 404 acres of perennial grass seed varieties under cultivation. Prior to purchase of equipment and construction of the straw storage facility, a combination of open field burning, stack burning, and straw removal was used.

Straw removal was accomplished by giving the straw to another party who then marketed the commodity. The middleman in this operation has since gone out of business.

The applicants realized that they would be unable to continue giving their straw away without providing dry storage. This construction enables the applicants to compete with other growers who are trying to give their straw away.

The applicant's operation does not provide any income from the residue, but does allow for disposal of the straw without open field burning or stack burning on approximately 400 acres annually.

4. Procedural Requirements

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

Construction of the facility was substantially completed on July 10, 1990, and the application for final certification was found to be complete on December 5, 1990, within two years of substantial completion of the facility.

5. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

In determining the percent of the pollution control 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 promotes the conversion of a waste product (straw) into a usable commodity by providing dry storage thus preserving the quality of the straw.

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

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 installation of the facility.

There is an increase in operating costs of \$1,695 to annually maintain and operate the facility. 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 facility properly allocable to the prevention, control or reduction of air pollution.

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

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

6. 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 reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility that is properly allocable to pollution control is 100%.

7. Reviewer's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$48,504.18, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-3289.

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

JB:bmTC32-89
December 6, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Ken W. Eichler
8250 Tucker Road
Amity, Oregon 97101

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

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

2. Description of Claimed Facility

The facility described in this application is a 22' x 124' x 180' pole construction, metal clad, grass straw storage shed, located at 8250 Tucker Road, Amity, Oregon. The land and buildings are owned by the applicant.

Claimed facility cost: \$68,944.99
(Accountant's Certification was provided.)

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

The applicant states that with the construction of the grass straw storage shed he is able to bale approximately 800 acres of additional grass seed fields. This 800 acres is farmed by Scharff Bros. Farm and has previously been registered annually for open field burning. The applicant contracts with Scharff Bros. Farm to remove the straw from their fields.

4. Procedural Requirements

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

Construction of the facility was substantially completed on October 1, 1990, and the application for final certification was found to be complete on November 29, 1990. The application was submitted within two years.

5. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

In determining the percent of the pollution control 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 promotes the conversion of a waste product (straw) into a salable commodity by providing protection from the elements.

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

The average gross annual income of \$74,000 less the average annual operating expenses of \$77,000 results in a negative average annual cash flow of \$3,000. Using Table 1 of OAR 340-16-030, there is no annual percent return on investment.

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 construction of the facility.

There is no savings or increase in costs as a result of the facility. Operations included in the annual operating expenses include baling, stacking, transportation to storage,

loading into the barn, loading out of the barn, and facility maintenance.

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 pollution.

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

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

6. 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 reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility that is properly allocable to pollution control is 100%.

7. Reviewer's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$68,944.99, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-3292.

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

JB:bmTC-3292
January 23, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Edwin J. Rohner
31623 Peoria Road
Albany, Oregon 97321

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

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

2. Description of Claimed Facility

The facility described in this application is a 22' x 124' x 144' pole construction grass seed straw storage shed and is located at 31868 Peoria Road, Albany, Oregon. The land and buildings are owned by the applicant.

Claimed facility cost: \$63,809.77
(Accountant's Certification was provided.)

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

In the recent past, the applicant open field burned as many of his 422 perennial and 379 annual acres of grass seed fields as the weather and smoke management program permitted. During the last three years he gravitated to having approximately half his acreage baled off by a straw broker. Most of the baled straw was stacked and burned.

To accommodate the straw from approximately 700 acres and to ensure the future services of the straw broker, the applicant had the straw storage shed constructed.

4. Procedural Requirements

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

Construction of the facility was substantially completed on July 1, 1990, and the application for final certification was found to be complete on December 21, 1990, within two years of substantial completion of the facility.

5. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

In determining the percent of the pollution control 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 promotes the conversion of a waste product (straw) into a salable commodity by providing protection from the elements allowing the straw broker the opportunity to market the commodity over an extended period of time.

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

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 installation of the facility.

There is an increase in operating costs of \$1,000 to annually maintain and operate the facility. 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 facility properly allocable to the prevention, control or reduction of air pollution.

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

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

6. 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 reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility that is properly allocable to pollution control is 100%.

7. Reviewer's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$63,809.77, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-3296.

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

JB:dmTC3296
December 21, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Jack R. Pimm, Richard D. Pimm
Pimm Farms, Inc.
29415 Blueberry Road
Halsey, Oregon 97348

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

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

2. Description of Claimed Facility

The equipment described in this application is located at 29415 Blueberry Road, Halsey, Oregon. The equipment is owned by the applicant.

Ford tractor \$14,000
Bearcat II Steiger tractor \$13,000

Claimed equipment cost: \$27,000
(Accountant's Certification was provided.)

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

In prior years the applicants disposed of straw, weed seeds, other crop seeds, and diseases by open field burning as many of their 1040 perennial and 1000 annual grass seed acres as the weather and the smoke management program permitted.

As an alternative to open field burning, the applicant's chosen option is to remove the straw and propane flame the stubble. Propane flaming is not as efficient as open field burning in eliminating weed and other crop seeds causing the added burden of tilling the fields every other year. Therefore, the applicant needed additional tractor power to accomplish straw removal, sanitation, and the added tillage.

Initially, the applicants have removed 640 acres from open field burning and anticipate incremental increases in acreage removed from open field burning in the coming years by baling, propane flaming and tilling.

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 21, 1989, and the application for final certification was found to be complete on December 17, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

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

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

The equipment does not recover or convert waste products into a salable or usable commodity. The equipment provides power to accomplish baling, propane flaming, and tilling operations.

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 \$6,400 to annually maintain and operate the equipment. These costs were considered in the return on investment calculation.

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

The established average annual operating hours for tractors is set at 450 hours. To obtain a total percent allocable, the annual operating hours per implement per tractor used in reducing acreage open field burned is as follows:

Steiger Bearcat II (160 hp)

<u>Implement</u>	<u>Acres Worked</u>		<u>Capacity acs/hr.</u>	<u>Hours</u>
	<u>Annual</u>	<u>Perennial</u>		<u>Operating Hours</u>
Round baler	220		4	55
Stack hand	220	80	5	60
Propane flamer	520		10	52
Flail chopper		300	6	50
Harrow	1000 (500 x 2)		7	143
Roller	500		7	<u>71</u>
Total annual operating hours				431

The total AOH of 431 divided by the AAOH of 450 produces a percent allocable of 96%.

Ford FW40 (250 hp)

Disc	640		8	80
Flail chopper		300	7	<u>43</u>
Total annual operating hours				123

The total AOH of 123 divided by the AAOH of 450 produces a percent allocable of 27%.

The determination of percent allocable for all equipment is displayed in the following table:

	<u>Actual Claimed Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Steiger Bearcat II Tractor	\$13,000	96%	\$12,480
Ford FW40 Tractor	<u>14,000</u>	<u>27%</u>	<u>3,780</u>
Total	\$27,000	60%	\$16,260

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 60%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 60%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$27,000, with 60% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3297.

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

JB:bmTC3297
December 18, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Jack R. Pimm, Richard D. Pimm
Pimm Farms, Inc.
29415 Blueberry Road
Halsey, Oregon 97348

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

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

2. Description of Claimed Facility

The equipment described in this application is located at 29415 Blueberry Road, Halsey, Oregon. The equipment is owned by the applicant.

(Three) New Holland 858 round balers \$33,753.83
(One) Rugby 70 bale mover \$3,000

Claimed equipment cost: \$36,753.83
(Accountant's Certification was provided.)

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

In prior years the applicants disposed of straw by open field burning as many of their 1040 perennial and 1000 annual grass seed acres as the weather and the smoke management program permitted. Minimal acreage was baled off under agreements with commercial balers.

To provide a more reliable and less expensive baling operation the applicants have invested in balers and a bale remover. Initially, they have removed 640 acres from open field burning and anticipate incremental increases in acreage removed from open field burning by baling in the coming years.

4. Procedural Requirements

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

Purchase of the equipment was substantially completed on July 10, 1989, and the application for final certification was found to be complete on December 17, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

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

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

The equipment promotes the conversion of a waste product (straw) into a usable commodity by providing baling and bale moving capabilities. Most of the bales are stack burned, some is used as livestock feed supplement, and some is left to decompose.

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 \$28,748 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.

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

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 for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 100%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$36,753.83, with 100% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3298.

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

JB:bmTC3298
December 18, 1990

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Howard E. Schwanke
9950 Helmick Road
Monmouth, Oregon 97361

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

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

2. Description of Claimed Facility

The equipment described in this application is located at 9950 Helmick Road, Monmouth, Oregon. The equipment is owned by the applicant.

505 New Holland baler	\$11,574.27
GMC 16' flatbed	3,972.65

Claimed equipment cost: \$15,546.92
(The applicant provided proof of purchase.)

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

The applicant has 120 acres of perennial grass seed varieties and 125 acres of annual ryegrass under grass seed cultivation. Both annual and perennial acreage is baled off, the applicant block stacks the bales and moves them to the storage sheds with a hay squeeze. Some stored straw that is sold is transported with the applicant's truck. Each year annual and every fourth year perennial fields are plowed, harrowed, cultipacted, disced and re-seeded.

The applicant states that by utilizing his alternatives, 245 acres have been removed from open field burning. This constitutes all of the applicant's grass seed acreage.

The 505 New Holland baler (\$19,074.27) was purchased to replace a 420 New Holland baler (trade-in value \$7,500) because the 420 bales were too small to be handled by the bale compressor used by the applicant to meet export standards. The applicant made the move to the 505 to capture a share of that market. The actual cost of the 505 less the trade-in value of the 420 produced the equipment cost listed above.

4. Procedural Requirements

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

Purchase of the equipment was substantially completed on May 6, 1990, and the application for final certification was found to be complete on December 17, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(F)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

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

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

The equipment promotes the conversion of a waste product (straw) into a salable commodity by providing baling and transportation for the residue straw.

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 in this application. Total gross annual income derived from applicant's sale of straw was declared in previously certified application 3290.

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 \$700 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 applicant claims that the 16' flatbed is used solely for straw bale transportation and would not be able to sell all his straw if unable to provide delivery. The Department recognizes that the investment in the flatbed is modest for the benefit derived.

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 for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 100%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$15,546.92, with 100% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3299.

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

JB:bmTC3299
February 19, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Ronald Schmucker, Vice President
Oak Creek Farms, Inc.
31166 Seven Mile Lane
Tangent, Oregon 97389

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

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

2. Description of Claimed Facility

The equipment described in this application is a Ford TW-35 tractor (170 hp), located at 31014 Seven Mile Lane, Tangent, Oregon. The equipment is owned by the applicant.

Claimed equipment cost: \$63,600
(Accountant's Certification was provided.)

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

The applicant states that in prior years he open field burned as many of his 400 perennial and 1600 annual acres as the weather and smoke management program permitted.

They claim a reduction in open field burning of approximately 1000 acres by treating their annuals with flail chopping, plowing, harrowing and cultipacking, land leveling, and cement rolling. Perennials are treated by baling off, windrowing, vacuuming, and subsequently stack burning the bales and loaves.

4. Procedural Requirements

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

Purchase of the equipment was substantially completed on July 1, 1990, and the application for final certification was found to be complete on December 18, 1990, within two years of substantial purchase of the equipment.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

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

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

The equipment does not recover or convert waste products into a salable or usable commodity. After baling and flail chopping, the remaining residue is turned back into the soil. Straw bales and loaves are stack burned.

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

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

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 \$6,970 to annually maintain and operate the equipment. These costs were considered in the return on investment calculation.

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

The established average annual operating hours for tractors is set at 450 hours. To obtain a total percent allocable, the annual operating hours per implement used in reducing acreage open field burned is as follows:

<u>Implement</u>	<u>Annual Acres Worked</u>	<u>Capacity acs/hr</u>	<u>Annual Operating Hours</u>
Flail chopper	900 (700 + 100 x 2)	7	129
Landleveler	1,200 (600 x 2)	7	171
Cultivator	400	7	<u>57</u>
Total annual operating hours			357

The total annual operating hours of 357 divided by the average annual operating hours of 450 produces a percent allocable of 79%

The actual cost of the equipment properly allocable to pollution control as determined by using these factors is 79%.

6. Summation

- a. The equipment was purchased in accordance with all regulatory deadlines.
- b. The equipment is eligible for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 79%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$63,600, with 79% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3300.

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

JB:bmTC3300
December 18, 1990

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Shirtcliff Oil Company, Inc.
John Shirtcliff
PO Box 6003
Myrtle Creek, OR 97457

The applicant owns and operates a service station at 548 S. Main, Myrtle Creek OR, facility no. 1452.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of seven fiberglass tanks and piping, spill containment basins, tank monitor system, turbine leak detectors, an overflow alarm and monitoring wells.

Claimed facility cost	\$ 61,839
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on October 25, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation October 12, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins and overflow alarm.
- 3) For leak detection - Tank monitor, turbine leak detectors and monitoring wells.

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$58,921. This represents a difference of \$2,918 from the applicant's claimed cost of \$61,839 due to a determination by the Department that the normal cost of installing three additional tanks and piping to expand the tank farm is not eligible pursuant to the definition of a pollution control facility in ORS 468.155 because it would have been incurred regardless of pollution control considerations.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant considered the method chosen to be the only viable alternative. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Fiberglass tanks & piping	\$27,840	37%(1)	\$10,301
Spill & Overfill Prevention:			
Spill containment basins	1,371	100	1,371
Overfill alarm	182	100	182
Leak Detection:			
Tank monitor	9,787	90 (2)	8,808
Turbine leak detectors	680	100	680
Labor & materials (includes monitoring wells, does not include cost of installing added tanks & piping)	<u>19,061</u>	<u>100 (3)</u>	<u>19,061</u>
Total	\$58,921	69%	\$40,403

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank and piping system by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected system cost is \$27,840 and the bare steel system is \$17,500, the resulting portion of the eligible tank and piping cost allocable to pollution control is 37%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) This does not include the cost of installing additional tanks and piping to expand the tank farm, since that cost would have been incurred regardless of pollution control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 69%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$58,921 with 69% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3305.

Barbara J. Anderson:ew
(503) 229-5870
January 15, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Don and Laura Christensen
16201 SW Christensen Road
McMinnville, Oregon 97128

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

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

2. Description of Claimed Facility

The facility described in this application is a 124' x 90' x 22' grass seed straw storage shed and is located at 17215 SW Christensen Road, McMinnville, Oregon. The land and buildings are owned by the applicant.

Claimed facility cost: \$32,500
(Accountant's Certification was provided.)

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

The applicant has 1,455 acres of perennial grasses under cultivation. To reduce current and avoid future open field burning and stack burning of residue left from the grass seed harvest, the applicants claim that additional storage facilities are required to keep the straw dry. Protection from late summer and early fall rains reduces inventory loss by insuring a more consistent, quality supply of straw.

Applicants claim that this facility was constructed to provide storage for approximately 450 acres of straw to enable straw balers to confidently remove and market the commodity.

4. Procedural Requirements

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

Construction of the facility was substantially completed on September 11, 1990, and the application for final certification was found to be

complete on January 10, 1991. The application was submitted within two years.

5. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

In determining the percent of the pollution control 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 promotes the conversion of a waste product (straw) into a salable commodity by providing protection from the elements. The applicant trades the straw to the balers for the baling services.

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

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 installation of the facility.

There is an increase in operating costs of \$250 to annually maintain and operate the facility. 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 facility properly allocable to the prevention, control or reduction of air pollution.

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

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

6. 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 reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility that is properly allocable to pollution control is 100%.

7. Reviewer's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$32,500, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-3308.

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

JB:bmTC3308
January 30, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

G & P Farms
Gary and Patricia Keen
34656 Enos Drive
Brownsville, Oregon 97327

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

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

2. Description of Claimed Facility

The equipment described in this application is a 24' wide straw rake, located at 34656 Enos Drive, Brownsville, Oregon. The equipment is owned by the applicant.

Claimed equipment cost: \$1,535
(The applicant provided copies of proof of purchase.)

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

Prior to investing in straw removal equipment, the applicant open field burned as many of his 1,300 annual ryegrass acres as the weather and smoke management program permitted.

With the addition of the straw rake, increasing the swath from 12 feet to 24 feet and the windrow from 60 inches wide to 96 inches wide, the applicant claims his 858 New Holland baler will make more uniform bales, enhancing bale transportation, and the increased bulk in the windrow doubles the baling capacity. The applicant states that with the straw rake open field burning will be reduced by an additional 200 acres annually.

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 1, 1990, and the application for final certification was found to be complete on January 10, 1991. The application was submitted within two years.

5. Evaluation of Application

- a. The equipment is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

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

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

The equipment does not recover or convert waste products into a salable or usable commodity. The equipment enables the applicant to remove straw residue from the field more efficiently and in a form qualified for shipment.

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 no savings or increase in costs as a result of the equipment.

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.

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

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 for final tax credit certification in that the principal purpose of the facility is to reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The equipment complies with DEQ statutes and rules.
- d. The portion of the equipment that is properly allocable to pollution control is 100%.

7. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$1,535, with 100% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-3309.

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

JB:bmTC3309
January 11, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Roy A. Bowers & Sons, Inc.
Donald E. Bowers
22009 Coburg Road
Harrisburg, Oregon 97446

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

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

2. Description of Claimed Facility

The facility described in this application is a 208' x 60' x 22' grass seed straw storage shed and is located at 32200 Bowers Lane, Harrisburg, Oregon. The land and buildings are owned by the applicant.

Claimed facility cost: \$67,251
(Accountant's Certification was provided.)

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

Prior to purchasing straw handling equipment and constructing straw storage facilities, the applicant states that as much of their 2,200 perennial and 2,100 annual grass seed acreage was open field burned as the weather and smoke management program permitted.

Construction of this straw storage shed has enabled the applicant to reduce open field burning by 350 perennial acres. The facility provides storage of waste straw until it can be shipped and storage of straw handling equipment.

4. Procedural Requirements

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

Construction of the facility was substantially completed on September 1, 1989, and the application for final certification was found to be complete on January 11, 1991. The application was

submitted within two years. The request for preliminary certification was approved on April 18, 1989.

5. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

In determining the percent of the pollution control 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 promotes the conversion of a waste product (straw) into a salable commodity by providing protection from the elements. Applicant sells one-third of the straw and gives away the remainder.

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

The actual cost of the claimed facility (\$67,051) divided by the average annual cash flow (\$800) equals a return on investment factor of 83.8. Using Table 1 of OAR 340-16-030 for a life of 30 years, the annual percent return on investment is 0%.

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 installation of the facility.

There is no savings or increase in costs as a result of the 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 pollution.

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

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

6. 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 reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility that is properly allocable to pollution control is 100%.

7. Reviewer's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$67,251, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-3310.

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

JB:bmTC-3310
January 30, 1991

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Clyde Montgomery
3246 Willetta Place SW
Albany, Oregon 97321

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

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

2. Description of Claimed Facility

The facility described in this application is a 180' x 60' x 22', grass seed straw storage shed and is located at 32410 Highway 99E, Tangent, Oregon. The land and buildings are owned by the applicant.

Claimed facility cost: \$56,050
(Accountant's Certification was provided.)

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

Prior to construction of straw storage facilities and purchase of straw handling equipment, the applicant claims that he open field burned as many of his 2,680 perennial and 500 annual acres of grass seed residue as the weather and smoke management program permitted.

The applicant states that the straw storage shed addressed by this application will protect 300 acres of baled perennial grass seed straw annually. This facility will also house the bale press and accommodate the densifying operation necessary for commodity shipment.

4. Procedural Requirements

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

Construction of the facility was substantially completed on April 30, 1990, and the application for final certification was found to be complete on January 11, 1991. The application was submitted within two years.

5. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

In determining the percent of the pollution control 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 promotes the conversion of a waste product (straw) into a usable commodity by providing protection from the elements and accommodations for pre-shipment densification.

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

There is no annual percent return on the investment as applicant claims no gross annual income. Applicant states that he assigned total gross annual income from straw sales to previously certified TC-2961.

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 installation of the facility.

There is an increase in operating costs of \$1,600 to annually maintain and operate the facility. 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 facility properly allocable to the prevention, control or reduction of air pollution.

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

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

6. 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 reduce a substantial quantity of air pollution and accomplishes this purpose by the reduction of air contaminants, as defined in ORS 468.275.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility that is properly allocable to pollution control is 100%.

7. Reviewer's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$56,050, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-3311.

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

JB:bmTC-3311
January 30, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Jim's Market
Cleo & Jim Weseman
6065 Dee Highway
Parkdale, OR 97041

The applicant owns and operates a gas station and grocery store at 6065 Dee Highway, Parkdale OR, facility no. 7920.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of three fiberglass tanks and piping, spill containment basins, float vent valves, monitoring/observation wells and underground preparation of the site for a tank monitor.

Claimed facility cost \$ 23,872
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on January 15, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation January 18, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of two steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins and float vent valves.
- 3) For leak detection - Monitoring/observation wells and preparation of the site for a tank monitor.

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$23,872) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant considered aboveground tanks as an alternative. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection:			
Fiberglass tanks & piping	\$ 8,914	46%(1)	\$ 4,100
Spill & Overfill Prevention:			
Spill containment basins	630	100	630
Float vent valves	89	100	89
Leak Detection:			
Monitoring/observation wells	478	100	478
Labor & materials (includes preparation of site for tank monitor)	<u>13,761</u>	<u>100</u>	<u>13,761</u>
Total	\$23,872	80%	\$19,058

(1) The Department has determined the percent allocable on the cost of a corrosion protected tank and piping system by using a formula based on the difference in cost between the protected tank and piping system and a bare steel tank system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected tank and piping system cost is \$8,914 and the bare steel system is \$4,769, the resulting portion of the eligible tank and piping cost allocable to pollution control is 46%.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 80%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$23,872 with 80% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3313.

Barbara J. Anderson:ew
(503) 229-5870
January 28, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Bill Terpening, Inc.
936 S. Central
Medford, OR 97501

The applicant owns and operates a cardlock at 3680 Pacific Highway, Medford OR, facility no. 10651.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the new installation of five fiberglass tanks and piping, spill containment basins, tank monitor, float vent valves, overflow alarm, line leak detectors, breakaways, sumps, oil/water separator, Stage I & Stage II vapor recovery equipment and piping and monitoring wells.

Claimed facility cost	\$127,572
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on November 15, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation September 11, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the site was vacant land where no underground tanks had previously existed (according to an environmental study).

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins, float vent valves, breakaways, sumps and overflow alarm.
- 3) For leak detection - Tank monitor, line leak detectors and monitoring wells.

The applicant also installed an oil/water separator, Stage I vapor recovery equipment and piping for Stage II.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$127,572) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant considered the method chosen to be the most environmentally sound. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Fiberglass tanks & piping	\$37,564	45%(1)	\$16,904
Spill & Overfill Prevention:			
Spill containment basins	990	100	990
Sumps	3,720	100	3,720
Overfill alarm	110	100	110
Float vent valves	135	100	135
Breakaways	1,555	100	1,555
Leak Detection:			
Tank monitor	5,942	90 (2)	5,348
Line leak detectors	850	100	850
Monitoring wells	500	100	500
Stage I & II vapor recovery			
Oil/water separator	37,211	100	37,211
Labor & materials (does not include the cost of installing new tanks & piping)	<u>38,080</u>	<u>100 (3)</u>	<u>38,080</u>
Total	\$127,572	83%	\$106,318

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank and piping system by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected system cost is \$37,564 and the bare steel system is \$20,734, the resulting portion of the eligible tank and piping cost allocable to pollution control is 45%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.
- (3) The cost of installing tanks and piping is not included because the business is newly constructed and such a cost would have been incurred regardless of pollution control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 83%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$127,572 with 83% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3315.

Barbara J. Anderson:ew
(503) 229-5870
January 28, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Truax Corporation, Inc.
PO Box 3002
Corvallis, OR 97339

The applicant owns and operates a retail gas station at 822 SW Coast Hwy., Newport OR, facility no. 7026.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of one fiberglass/steel composite tank, fiberglass piping, cathodic protection anodes, spill containment basins, line leak detectors and automatic shutoff valves.

Claimed facility cost	\$ 69,786
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed in February, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in February, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of six steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Replacement of one steel tank with one fiberglass/steel composite tank, cathodic protection anodes and fiberglass piping on whole system.
- 2) For spill and overflow prevention - Spill containment basins and automatic shutoff valves.
- 3) For leak detection - Line leak detectors.

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$63,978. This represents a difference of \$5,808 from the applicant's claimed cost of \$69,786 due to a determination by the Department that the cost of tank disposal (\$600), submersible pumps including freight (\$3,510) and light fixtures (\$1,698) are not eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Composite tank & fiberglass piping	\$ 7,930	38%(1)	\$ 3,013
Anodes	1,260	100	1,260
Spill & Overfill Prevention:			
Spill containment basins	1,080	100	1,080
Float vent valves	600	100	600
Leak Detection:			
Line leak detectors	735	100	735
Labor & materials	<u>52,373</u>	<u>100</u>	<u>52,373</u>
Total	\$63,978	92%	\$59,061

(1) The Department has determined the percent allocable on the cost of a corrosion protected tank and piping system by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected system cost is \$7,930 and the bare steel system is \$4,930, the resulting portion of the eligible tank and piping cost allocable to pollution control is 38%.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 92%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$63,978 with 92% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3316.

Barbara J. Anderson:ew
(503) 229-5870
January 29, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Truax Corporation, Inc.
PO Box 3002
Corvallis, OR 97339

The applicant owns and operates a retail service station at 3198 NE Hwy. 97, Bend OR, facility no. 7030.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of cathodic protection on three steel tank and piping systems.

Claimed facility cost (Documentation of cost was provided)	\$ 12,847
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed in March, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in March, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Cathodic protection on tanks and piping.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$12,847) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection: Cathodic protection	<u>\$12,847</u>	<u>100%</u>	<u>\$12,847</u>
Total	\$12,847	100%	\$12,847

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$12,847 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3317.

Barbara J. Anderson:ew
(503) 229-5870
January 28, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Truax Corporation, Inc.
PO Box 3002
Corvallis, OR 97339

The applicant owns and operates a retail service station at 2182 Santiam Hwy, SE, Albany OR, facility no. 1970.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy tank lining in one tank and a spill containment basin

Claimed facility cost	\$ 11,108
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed in January, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in January, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Epoxy tank lining in one tank.
- 2) For spill and overflow prevention - Spill containment basin.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$11,108) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection:			
Epoxy tank lining	\$10,478	100%	\$10,478
Spill & Overfill Prevention:			
Spill containment basin	<u>630</u>	<u>100</u>	<u>630</u>
Total	\$11,108	100%	\$11,108

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$11,108 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3319.

Barbara J. Anderson:ew
(503) 229-5870
January 28, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Truax Corporation, Inc.
PO Box 3002
Corvallis, OR 97339

The applicant owns and operates a retail service station at 1208 Pacific Blvd., Albany OR, facility no. 6912.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy tank lining in four steel tanks, spill containment basins and automatic shutoff valves.

Claimed facility cost (Accountant's certification was provided)	\$ 27,366
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed in June, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in June, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of seven steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment. One tank was removed and two were filled in place at the time of the project.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Epoxy tank lining in four tanks.
- 2) For spill and overflow prevention - Spill containment basins and automatic shutoff valves.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$28,651. This represents a difference of \$1,285 from the applicant's claimed cost of \$27,366 due to a determination by the Department that the cost of backfill (\$1400) and spill containment basins (\$660) are eligible and should have been included and the cost of filling two tanks in-place (\$775) is not eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection: Epoxy tank lining	\$25,949	100%	\$25,949
Spill & Overfill Prevention: Spill containment basins, automatic shutoff valves (includes labor)	<u>2,702</u>	<u>100</u>	<u>2,702</u>
Total	\$28,651	100%	\$28,651

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$28,651 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3320.

Barbara J. Anderson:ew
(503) 229-5870
January 28, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Truax Corporation, Inc.
PO Box 3002
Corvallis, OR 97339

The applicant owns and operates a retail service station at 516 SW 4th, Corvallis OR, facility no. 9191.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of cathodic protection anodes on four tanks and piping, spill containment basins, line leak detectors and automatic shutoff valves.

Claimed facility cost	\$ 10,342
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed in September, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in September, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Cathodic protection on tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins and automatic shutoff valves.
- 3) For leak detection - Line leak detectors.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$9,307. This represents a difference of \$1,035 from the applicant's claimed cost of \$10,342 due to a determination by the Department that the cost of tank disposal (\$300), a submersible pump (\$723) and diesel disposal (\$12) are not eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Cathodic protection	\$ 450	100%	\$ 450
Spill & Overflow Prevention:			
Spill containment basin	696	100	696
Shutoff valves	1,056	100	1,056
Leak Detection:			
Line leak detectors	776	100	776
Labor & materials	<u>6,329</u>	<u>100</u>	<u>6,329</u>
Total	\$ 9,307	100%	\$ 9,307

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$9,307 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3321.

Barbara J. Anderson:ew
(503) 229-5870
January 28, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Truax Corporation, Inc.
PO Box 3002
Corvallis, OR 97339

The applicant owns and operates a retail service station at 245 NW 3rd, Corvallis OR, facility no. 6948.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of fiberglass piping in four tank systems, spill containment basins and line leak detectors.

Claimed facility cost (Accountant's certification was provided)	\$ 20,952
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Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed in February, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in February, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four corrosion protected tanks, but no spill and overflow prevention, leak detection or corrosion protected piping.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins.
- 3) For leak detection - Line leak detectors.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (20,952) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection: Fiberglass piping	\$ 1,096	34%(1)	\$ 373
Spill & Overfill Prevention: Spill containment basins	1,040	100	1,040
Leak Detection: Line leak detectors	3,104	100	3,104
Labor & materials	<u>15,712</u>	<u>100</u>	<u>15,712</u>
Total	\$20,952	97%	\$20,229

- (1) The Department has determined the percent allocable on the cost of a corrosion protected piping system by using a formula based on the difference in cost between the protected piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected system cost is \$1,096 and the bare steel system is \$722, the resulting portion of the eligible piping system cost allocable to pollution control is 34%.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 97%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$20,952 with 97% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3322.

Barbara J. Anderson:ew
(503) 229-5870
January 28, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Truax Corporation, Inc.
PO Box 3002
Corvallis, OR 97339

The applicant owns and operates a retail service station at 1410 Monmouth Blvd., Independence OR, facility no. 4431.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy tank lining in three tanks, spill containment basins and automatic shutoff valves.

Claimed facility cost	\$ 37,333
(Accountant's certification was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed in February, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in February, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Epoxy tank lining.
- 2) For spill and overflow prevention - Spill containment basins and automatic shutoff valves.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$37,053. This represents a difference of \$280 from the applicant's claimed cost of \$37,333 due to a determination by the Department that the cost of sludge disposal (\$280) is not eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection:			
Epoxy tank lining	\$23,940	100%	\$23,940
Spill & Overfill Prevention:			
Spill containment basin	495	100	495
Shutoff valves	780	100	780
Labor & materials	<u>11,838</u>	<u>100</u>	<u>11,838</u>
Total	\$37,053	100%	\$37,053

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$37,053 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3323.

Barbara J. Anderson:ew
(503) 229-5870
January 28, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Truax Corporation, Inc.
PO Box 3002
Corvallis, OR 97339

The applicant owns and operates a retail gas station at 3000 Crater Lake Hwy., Medford OR, facility no. 6121.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of three fiberglass/steel composite tanks, fiberglass piping, spill containment basins, line leak detectors, automatic shutoff valves, sumps and monitoring wells.

Claimed facility cost \$ 77,149
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed in February, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in February, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass/steel composite tanks and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins, float vent valves and sumps.
- 3) For leak detection - Line leak detectors and monitoring wells.

The applicant reported that soil testing was performed at the time of tank removal and some contamination was found and removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$75,013. This represents a difference of \$2,136 from the applicant's claimed cost of \$77,149 due to a determination by the Department that the cost of tank registration with DEQ (\$75) and submersible pumps (\$2,061) are not eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Composite tanks & fiberglass piping	\$21,202	34%(1)	\$ 7,209
Spill & Overflow Prevention:			
Spill containment basins	1,260	100	1,260
Sumps	1,857	100	1,857
Float vent valves	201	100	201
Leak Detection:			
Line leak detectors	582	100	582
Monitoring wells	262	100	262
Labor & materials	<u>49,649</u>	<u>100</u>	<u>49,649</u>
Total	\$75,013	81%	\$61,020

(1) The Department has determined the percent allocable on the cost of a corrosion protected tank and piping system by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected system cost is \$21,202 and the bare steel system is \$14,004, the resulting portion of the eligible tank and piping cost allocable to pollution control is 34%.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 81%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$75,013 with 81% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3328.

Barbara J. Anderson:ew
(503) 229-5870
January 29, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Truax Corporation, Inc.
PO Box 3002
Corvallis, OR 97339

The applicant owns and operates a retail gas station at 1190 Crater Lake Ave., Medford OR, facility no. 6119.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of three fiberglass/steel composite tanks, fiberglass piping, cathodic protection anodes, spill containment basins, line leak detectors, sumps and monitoring wells.

Claimed facility cost \$ 74,503
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed in September, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in September, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of four steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Fiberglass/steel composite tanks, cathodic protection anodes and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins and sumps.
- 3) For leak detection - Line leak detectors and monitoring wells.

The applicant reported that soil testing was performed at the time of tank removal and some contamination was found and removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that the eligible facility cost for the project is \$69,636. This represents a difference of \$4,867 from the applicant's claimed cost of \$74,503 due to a determination by the Department that the cost of tank registration with DEQ (\$75), submersible pumps (\$1,823) and tank/soil testing, contaminated soil cleanup and tank disposal (\$2,969) are not eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Composite tanks & fiberglass piping	\$19,114	32%(1)	\$ 6,116
Anodes	120	100	120
Spill & Overfill Prevention:			
Spill containment basins	1,260	100	1,260
Sumps	1,688	100	1,688
Leak Detection:			
Line leak detectors	582	100	582
Monitoring wells	734	100	734
Labor & materials	<u>46,138</u>	<u>100</u>	<u>46,138</u>
Total	\$69,636	81%	\$56,638

(1) The Department has determined the percent allocable on the cost of a corrosion protected tank and piping system by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected system cost is \$19,114 and the bare steel system is \$12,976, the resulting portion of the eligible tank and piping cost allocable to pollution control is 32%.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 81%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$69,636 with 81% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3331.

Barbara J. Anderson:ew
(503) 229-5870
January 29, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Peter Kryl
2185 W. 29th Avenue
Eugene, OR 97405

The applicant owns and operates a service station at 1888 Franklin Blvd., Eugene, OR, facility no. 582.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy lining in one steel tank and spill containment basins.

Claimed facility cost	\$ 12,301
(Documentation of cost was provided)	

Percent allocable to pollution control	100%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on April 26, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on April 26, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Epoxy tank lining in one tank.
- 2) For spill and overflow prevention - Spill containment basins.

The applicant reported that the soil was inspected during construction of the project and no evidence of contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$12,301) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant considered the method chosen to be the most economical. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
Tank lining	\$10,200	100%	\$10,200
Spill & Overfill Prevention:			
Spill containment basins	1,150	100	1,150
Labor & materials	<u>951</u>	<u>100</u>	<u>951</u>
Total	\$12,301	100%	\$12,301

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$12,301 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3350.

Barbara J. Anderson:ew
(503) 229-5870
January 23, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Wilson Motors, Inc.
1105 NW 5th Street
Corvallis, OR 97330

The applicant owns and operates a car dealership at 1105 NW 5th, Corvallis, OR, facility no. 75.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of epoxy tank lining, cathodic protection on tanks and piping, spill containment basins, tank monitor and monitoring wells.

Claimed facility cost \$ 41,545
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed in October, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation in July, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Epoxy tank lining and cathodic protection on tanks and piping.
- 2) For spill and overflow prevention - Spill containment basins.
- 3) For leak detection - Tank monitor and monitoring wells.

The applicant reported that some soil contamination was found during construction of the project, which was reported to DEQ and removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$41,545) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant considered the method chosen to be the most practical. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection:			
Tank lining	\$16,455	100%	\$16,455
Cathodic protection	11,365	100	11,365
Spill & Overfill Prevention:			
Spill containment basins	3,225	100	3,225
Leak Detection:			
Tank monitor	9,500	90 (1)	8,550
Monitoring wells	<u>1,000</u>	<u>100</u>	<u>1,000</u>
Total	\$41,545	98%	\$40,595

(1) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.
- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 98%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$41,545 with 98% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3351.

Barbara J. Anderson:ew
(503) 229-5870
January 23, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Western Stations Co., Inc.
PO Box 5969
Portland, OR 97228

The applicant owns and operates a retail gasoline outlet at 11010 SE McLoughlin, Milwaukie OR, facility no. 6277.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of two STI-P3 tanks and one dual containment double wall steel/plastic composite tank, fiberglass piping, spill containment basins, tank monitor, float vent valves, overflow alarm, monitoring wells and Stage I & II vapor recovery equipment and piping.

Claimed facility cost \$ 66,036
(Accountant's certification was provided)

Percent allocable to pollution control 81%

3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on June 8, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on June 11, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - STI-P3 and composite tanks and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins, float vent valves and an overflow alarm.
- 3) For leak detection - Tank monitor and monitoring wells.

The applicant also installed Stage I & II vapor recovery equipment and piping.

The applicant reported that tank and line testing was performed prior to the project. Subsequent soil tests revealed some contamination which was reported to DEQ and necessitated the tank removal. Cleanup costs were not included in the claimed project cost.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$66,036) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no significant alternative methods were available. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The applicant estimated that 81% of the claimed facility cost of \$66,036 is allocable to pollution control. The applicant arrived at this estimate by calculating the difference between bare steel and corrosion protected tanks and piping and 90% of the tank monitor cost.

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
STI-P3 composite tank & fiberglass piping	\$21,190	37%(1)	\$ 7,840
Spill & Overfill Prevention:			
Spill containment basins	567	100	567
Float vent valves	580	100	580
Overfill alarm	200	100	200
Leak Detection:			
Tank monitor	4,960	90 (2)	4,464
Monitoring wells	180	100	180
Stage I & II vapor recovery	3,987	100	3,987
Labor & materials	<u>34,372</u>	<u>100</u>	<u>34,372</u>
Total	\$66,036	79%	\$52,190

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank and piping system by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected system cost is \$21,190 and the bare steel system is \$13,258, the resulting portion of the eligible tank and piping cost allocable to pollution control is 37%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 79%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$66,036 with 79% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3352.

Barbara J. Anderson:ew
(503) 229-5870
January 29, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Powell Distributing Co., Inc.
9125 N. Burrage
Portland, OR 97217

The applicant owns and operates a service station at 6021 NE Portland Way, Portland OR, facility no. 6061.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of plastic/steel composite tanks, double wall fiberglass piping, spill containment basins, tank monitor, line leak detectors and piping for Stage II vapor recovery.

Claimed facility cost	\$110,329
(Accountant's certification was provided)	

Percent allocable to pollution control	83%
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3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on August 4, 1990 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on August 6, 1990.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of three steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - Plastic/steel composite tanks and double wall fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins.
- 3) For leak detection - Tank monitor, line leak detectors and monitoring wells.

The applicant also installed piping for Stage II vapor recovery.

The applicant reported that soil testing was performed at the time of tank removal and some contamination was found, reported to DEQ and removed.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$110,329) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant considered the method chosen to be the only choice other than closing the facility. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The applicant estimated that 83% of the claimed facility cost of \$110,329 is allocable to pollution control. The applicant arrived at this estimate by including only the difference between bare steel and corrosion protected tanks and piping and 90% of the tank monitor system rather than the entire cost of these items.

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	Eligible Facility Cost	Percent Allocable	Amount Allocable
Corrosion Protection:			
Tanks & piping	\$31,728	43%(1)	\$13,643
Spill & Overflow Prevention:			
Spill containment basins	1,120	100	1,120
Leak Detection:			
Tank monitor	6,385	90 (2)	5,747
Line leak detectors	756	100	756
Stage II vapor recovery	840	100	840
Labor & materials	<u>69,500</u>	<u>100</u>	<u>69,500</u>
Total	\$110,329	83%	\$91,606

(1) The Department has determined the percent allocable on the cost of a corrosion protected tank and piping system by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected system cost is \$31,728 and the bare steel system is \$18,037, the resulting portion of the eligible tank and piping cost allocable to pollution control is 43%.

(2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 83%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$110,329 with 83% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3353.

Barbara J. Anderson:ew
(503) 229-5870
January 28, 1991

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Everett E. Miles, Jr.
PO Box 237
Florence, OR 97439

The applicant owns and operates a service station at 2118 Highway 101, Reedsport OR, facility no. 8125.

Application was made for a tax credit for a water pollution control facility involving underground storage tanks.

2. Description of Claimed Facility

The claimed pollution control facilities described in this application are the installation of four STI-P3 tanks, fiberglass piping, spill containment basins, float vent valves, tank monitor, line leak detectors and monitoring wells.

Claimed facility cost \$ 53,775
(Accountant's certification was provided)

Percent allocable to pollution control 100%

3. Procedural Requirements

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

The facility met all statutory deadlines in that installation of the facility was substantially completed on August 17, 1989 and the application for certification was found to be complete within two years of substantial completion of the facility. The facility was placed into operation on August 17, 1989.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with underground storage tank requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases into soil or water. The facility qualifies as a "pollution control facility", defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."

Prior to the installation of pollution control, the facility consisted of five steel tanks and piping with no corrosion protection and no spill and overflow prevention or leak detection equipment.

To respond to requirements established 12-22-88, the applicant installed:

- 1) For corrosion protection - STI-P3 tanks and fiberglass piping.
- 2) For spill and overflow prevention - Spill containment basins and float vent valves.
- 3) For leak detection - Tank monitor, line leak detectors and monitoring wells.

The applicant reported that soil testing was performed at the time of tank removal and no contamination was found.

Based on information currently available, the applicant is in compliance with all applicable DEQ regulations in that these tanks are permitted and fee payments are current.

The Department concludes that all of the costs claimed by the applicant (\$53,775) are eligible pursuant to the definition of a pollution control facility in ORS 468.155.

b. Eligible Cost Findings

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

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

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

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

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

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

The applicant indicated that no alternative methods were considered. The methods chosen are acceptable for meeting the requirements of federal regulations.

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

The applicant claims no savings or increase in costs as a result of the installation.

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

The Department determined the percent allocable pursuant to Department procedures under Oregon Administrative Rules Chapter 340, Division 16. The result is displayed in the following table.

	<u>Eligible Facility Cost</u>	<u>Percent Allocable</u>	<u>Amount Allocable</u>
Corrosion Protection:			
STI-P3 tanks & fiberglass piping	\$15,317	50%(1)	\$ 7,659
Spill & Overfill Prevention:			
Spill containment basins	1,096	100	1,096
Float vent valves	480	100	400
Leak Detection:			
Tank monitor	10,087	90 (2)	9,078
Line leak detectors	2,045	100	2,045
Monitoring wells	145	100	145
Labor & materials	<u>24,605</u>	<u>100</u>	<u>24,605</u>
Total	\$53,775	84%	\$45,108

- (1) The Department has determined the percent allocable on the cost of a corrosion protected tank and piping system by using a formula based on the difference in cost between the protected tank and piping system and an equivalent bare steel system as a percent of the protected system. Applying this formula to the costs presented by the applicant, where the protected system cost is \$15,317 and the bare steel system is \$7,659, the resulting portion of the eligible tank and piping cost allocable to pollution control is 50%.
- (2) The applicant's cost for a tank monitor is reduced to 90% of cost based on a determination by the Department that this is the portion properly allocable to pollution control since the device can serve other purposes, for example, inventory control.

5. Summation

- a. The facility was constructed in accordance with all regulatory requirements.

- b. The facility is eligible for tax credit certification in that the principal purpose of the claimed facility is to comply with requirements imposed by the federal Environmental Protection Agency to prevent pollution of soil and water. This is accomplished by preventing releases in soil or water. The facility qualifies as a "pollution control facility" defined in OAR 340-16-025(2)(g): "Installation or construction of facilities which will be used to detect, deter or prevent spills or unauthorized releases."
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 84%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$53,775 with 84% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3354.

Barbara J. Anderson:ew
(503) 229-5870
January 29, 1991

REQUEST FOR EQC ACTION

Meeting Date: March 11, 1991
Agenda Item: C
Division: H&SW
Section: SWR&R

SUBJECT:

Authorization for Rulemaking Hearing on Rule Amendments
Relating to Charging a Fee for Yard Debris Collection.

PURPOSE:

The proposed rule revisions are intended to clarify the intent of ORS 459.190 as it applies to additional fees which can be charged for residential yard debris recycling service. The purpose in drafting the rules is to ensure that a financial disincentive is not created for any waste generator who participates in a residential yard debris collection program. In addition, the Department of Environmental Quality (Department) is proposing two housekeeping amendments to provide for a new method of centralized reporting of recycling data and to enable used oil to be burned for energy recovery.

ACTION REQUESTED:

- Work Session Discussion
- General Program Background
- Program Strategy
- Proposed Policy
- Potential Rules
- Other: (specify)



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



Meeting Date: March 11, 1991
Agenda Item: C
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|-------------------------------------|---------------------------------------|---------------------|
| <input checked="" type="checkbox"/> | Authorize Rulemaking Hearing | |
| | Proposed Rules (Draft) | Attachment <u>A</u> |
| | Rulemaking Statements | Attachment <u>B</u> |
| | Fiscal and Economic Impact Statement | Attachment <u>C</u> |
| | Draft Public Notice | Attachment <u>D</u> |
|
 | | |
| <input type="checkbox"/> | Adopt Rules | |
| | Proposed Rules (Final Recommendation) | Attachment _____ |
| | Rulemaking Statements | Attachment _____ |
| | Fiscal and Economic Impact Statement | Attachment _____ |
| | Public Notice | Attachment _____ |
|
 | | |
| <input type="checkbox"/> | Issue Contested Case Decision/Order | |
| | Proposed Order | Attachment _____ |
|
 | | |
| <input type="checkbox"/> | Other: (specify) | |

DESCRIPTION OF REQUESTED ACTION:

The Department is requesting three rule revisions. Each is discussed separately in this section. The first rule regarding charging a fee for residential yard debris recycling is of major importance and the other two are minor rule changes which the Department considers to be housekeeping items.

Charging a fee for yard debris recycling services:

ORS 459.190 allows a person who source separates recyclable material to be charged less, but not more, for collection and disposal of solid waste and collection of recyclable material than they would have been charged for collection and disposal of that same material as solid waste. The circumstances surrounding the collection of residential yard debris as a recyclable material were not considered when this language was included in the statute. The Department of Justice has given the Department advice indicating that the Environmental Quality Commission (Commission) has some ability under the law to consider volume-based rates for this material since yard debris collection involves substantial volumes of material which are generated seasonally and on a sporadic basis. The Department wishes to adopt rules that would clarify the specific circumstances under which a fee could be charged for the collection of residential yard debris.

The Department wishes to adopt rules at this time since many local governments in the Metro area will be implementing their yard debris recycling programs by July 1991 and have requested that the Department provide guidance on fees which

can be charged to participants in residential yard debris recycling programs. The Department has developed rules which address residential yard debris collection programs only. These rules do not address fees which might be charged for yard debris collection from commercial establishments or multi-family dwellings.

The cost of providing recycling collection service for principal recyclable materials is currently being passed on to residents in one of two ways. The most common method of recovering costs for providing recycling service is to include that cost in the rate paid for garbage collection service. This cost is then paid by all garbage collection customers. Another method of recovering the costs for providing recycling service is to include those costs in the tax base.

The proposed rules set up the parameters under which a fee could be charged for residential yard debris recycling. The rules would allow a fee, in addition to the base rate charged for garbage collection, to be charged to generators of yard debris under certain circumstances. The proposed rule would allow for the following fees where yard debris is a principal recyclable material (currently only the Portland Metro area):

- a fee may be charged to participants in a residential, on-route yard debris recycling program for material generated in excess of one thirty-two gallon garbage collection container, or its equivalent, each month;
- a fee may continue to be charged to participants in residential yard debris recycling programs located at depots for any amount of yard debris recycled at that site; and
- any fee charged to participants of residential yard debris recycling programs shall be less than the fee that would have been charged for collection of that same volume of yard debris as garbage.

The following are two examples of how this fee could be implemented:

- if the garbage rate is \$3.50 per week (about \$14.00 per month) for one thirty-two gallon can collected weekly, a person who recycles two thirty-two gallon cans of yard debris in one week may be charged no more than \$3.50 for one of the thirty-two gallon cans of yard debris; and

- if the disposal fee at a transfer station is \$55.00 per ton of garbage disposed, a person who recycles yard debris at a yard debris recycling depot can be charged no more than \$55.00 per ton for recycling of any amount of yard debris.

This rule sunsets on June 1, 1993 if the Department does not request that the Commission continue the rule. The Department has included a sunset provision so that the rule can be evaluated after a period of time to determine the effect that charging a fee to participants in yard debris recycling programs has on the operation of those programs.

Centralized Reporting:

OAR 340-60-045(5) presently requires that recycling collectors report directly to the Department on the number of recycling setouts for principal recyclable materials collected for four months of each year. The Metropolitan Service District will also be gathering extensive data on recycling setouts and materials recycled in the Metro area wastesheds. To reduce the reporting burden on the collectors, the Department would like to amend this rule to allow Metro area garbage haulers to submit data forms directly to the wasteshed representatives, who would pass them on to Metro for analysis. Metro would then be responsible for forwarding the data to the Department. Although the Department has proposed this rule revision because of the situation in the Metro area, the rule has been written in general terms to allow any other local government to take advantage of this method of reporting.

The rule revision would allow for the following:

- written agreements to be developed between a local government unit or wasteshed and the Department which allows local recycling programs to report directly to the local government unit or wasteshed;
- any information reported directly to a local government unit would be at least as comprehensive as the data currently required to be reported to the Department;
- any information reported directly to a local government be gathered in a manner compatible with the current method the Department uses for gathering data, and be transmitted by the local government unit to the Department in a timely manner; and

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- the Department could enforce the reporting of data by local recycling programs to the local government unit just as it would for data reported directly to the Department.

Allowing used motor oil to be burned for energy recovery:

OAR 340-60-080 prohibits recyclers from disposing of source separated recyclable material by any means other than reuse and recycling. This means that source separated recyclable material, which includes used oil, cannot be burned for energy recovery. This rule goes beyond the statutory requirements of ORS 459.195, which simply prohibits the disposal of source separated recyclable material through mixing "with solid waste in any vehicle, box, container, or receptacle used in solid waste collection or disposal." Virtually all of the used oil currently collected is being marketed to Oregon and Washington processors who make it into fuel oil - not those that re-refine the oil to make lubricating oil. There are no processors who re-refine used motor oil into automotive lubricants in the states of Oregon, Washington, and Idaho. The Department has identified used motor oil as a material which is desirable to keep out of the landfill and is, therefore, proposing that used oil be exempted from OAR 340-60-080 if the oil is being burned for energy recovery.

AUTHORITY/NEED FOR ACTION:

- | | |
|---|---------------------|
| ___ Required by Statute: _____ | Attachment ___ |
| Enactment Date: _____ | |
| ___ Statutory Authority: _____ | Attachment ___ |
| <u>X</u> Amendment of Existing Rule: <u>OAR Chapter 340</u> | Attachment <u>E</u> |
| <u>Division 60</u> | |
| ___ Implement Delegated Federal Program: _____ | Attachment ___ |
| ___ Other: _____ | Attachment ___ |
| ___ Time Constraints: (explain) | |

DEVELOPMENTAL BACKGROUND:

- | | |
|---|---------------------|
| <u>X</u> Advisory Committee Report/Recommendation | Attachment <u>F</u> |
| ___ Hearing Officer's Report/Recommendations | Attachment ___ |
| ___ Response to Testimony/Comments | Attachment ___ |
| ___ Prior EQC Agenda Items: (list) | Attachment ___ |
| ___ Other Related Reports/Rules/Statutes: | Attachment ___ |
| <u>X</u> Supplemental Background Information | Attachment <u>G</u> |
| Attorney General's Letter of Advice | |

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REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The Department is proceeding with proposed adoption of rules regarding the charging of additional fees for residential yard debris recycling at this time because many local governments in the Metro area will be starting their yard debris recycling programs by July 1991 and have requested guidance on this issue. The Department has reviewed this topic both with the Solid Waste Reduction Advisory Committee and a special work group convened to provide input into the rule making process (see Attachment F). Both these groups have agreed on the concept proposed in these rules.

Garbage service collection and disposal rates could increase to help cover the cost of yard debris recycling programs, where yard debris is a principal recyclable material. This increase in the garbage collection and disposal rate would be paid by all generators of garbage and therefore is not unlike the method by which local recycling programs recover the costs of providing recycling collection for other principal recyclable materials. Nevertheless, there may be some residents who do not generate any yard debris who will object to paying for a portion of a program in which they choose not to participate.

The remainder of the cost could be paid by the participants in the program who generate more than one thirty-two gallon container of yard debris per month or that participate in yard debris depot program.

The Metro Waste Reduction Subcommittee to the Metro Solid Waste Committee favors a "user-pay" program which would allow any resident who participates in the program to pay an additional fee which covers the cost of the program. This does not meet the intent of the law, in that an economic disincentive to recycling is created for small generators of yard debris.

The Solid Waste Reduction Advisory Committee provided input to the Department on the proposed rules for reporting and allowing used oil to be burned for energy recovery (see Attachment F). The Committee's advice to the Department has been included in the proposed rules.

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PROGRAM CONSIDERATIONS:

By proposing rules which would allow for a fee to be charged for yard debris recycling, the Department has set a precedent and the same consideration could be requested for other principal recyclable materials or types of recycling services (e.g. commercial collection). The Department plans to review the issue of charging for recycling services and how that could affect existing recycling programs as a work session item at the April Commission meeting.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

- 1) Request authorization for public hearing on rule revisions outlined in this staff report.
- 2) Request authorization for public hearing on broader revisions to the rules including:
 - a general exemption from OAR 340-60-080 for other possible recyclable materials which could be burned for energy recovery; and
 - allow a fee to be charged for recycling services in addition to collection of yard debris (such as commercial collection of recyclables and recycling service for multi-family dwellings).
- 3) Make no changes to the rules. This could result in inconsistent application of ORS 459.190 by local recycling programs, duplicative reporting by haulers in the Metro area, and requests from wastesheds to delete motor oil from the list of principal recyclable materials in certain areas of the state.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends approval of Alternative 1, authorization for public hearing of rule revisions to OAR Chapter 340, Division 60 as outlined in this staff report. This recommendation allows the Department to clarify the intent of ORS 459.190 as it pertains to charging for yard debris recycling so that local governments in the Metro area have some guidance as they proceed with their yard debris recycling plans. The Department wishes to adopt these rules as soon as possible since many local governments in the Metro area will be starting up their yard debris recycling programs by July 1991. This recommendation also allows for centralized reporting and allows existing motor oil recycling programs to continue marketing their material to processors who sell into the fuel oil market.

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CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE
POLICY:

The proposed rule revisions are consistent with the legislative intent of the Opportunity to Recycle Act (ORS 459.165 to 459.200).

ISSUES FOR COMMISSION TO RESOLVE:

The Department of Justice and the Department have interpreted ORS 459.190 broadly and believe that under certain circumstances the law does not preclude local recycling programs from charging a fee to customers participating in a yard debris recycling program for yard debris recycling services.

The larger issue of charging for other types of recycling services or for the collection of other principal recyclable materials and how that could affect existing recycling programs needs to be reviewed by the Commission. The Department will be reviewing this information with the Commission in a work session at the April 1991 meeting.

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INTENDED FOLLOWUP ACTIONS:

- A) Publication of intent to hold a public hearing in the Secretary of State's Bulletin on April 1, 1991 and publication of notice of public hearing in newspapers.
- B) Hold three hearings, each in a different area of the state, the week of April 15, 1991.
- C) Receive public comment until April 20, 1991.
- D) Prepare hearing's officer's reports for final rule adoption by the Commission at the June 1991 meeting.
- E) Work session discussion on broader issues at the April 1991 meeting.

Approved:

Section: Jan Rutworth

Division: Stephanie Hallock

Director: Jul Hansen

Report Prepared By: Lissa West

Phone: 229-6823

Date Prepared: February 19, 1991

(EAW:eaw/phs)
(eqccharg.308)
(2/19/91)

DRAFT RULES
Charging Additional Fees for Residential Yard Debris
Recycling Services

Policy on Charging Additional Fees for Yard Debris
Recycling Services

- (1) The Commission's purpose in adopting these rules governing when a fee may be charged for yard debris recycling services is to:
 - (a) ensure that a financial disincentive for recycling is not created for any waste generator; and to
 - (b) recognize that it may not be equitable to distribute the cost of collection and recycling of yard debris across all waste generators due to the extreme variability in volumes generated.
- (2) The purpose as stated in section 1 of this rule is to apply to those recycling programs required under ORS 459.165 to ORS 459.200 and ORS 459.250.

Definitions

- (1) "Residential generator" means any generator of recyclable material located in single or multi-family dwellings up to and including 4 units.

Prohibited and Allowable Fees

- (1) Residential generators of yard debris participating in a yard debris collection service, where yard debris is a principal recyclable material, may be charged a fee for yard debris recycling in addition to the base fee charged for garbage collection if the volume of yard debris material collected each month exceeds one thirty-two gallon garbage collection container or its equivalent.
- (2) Fees for yard debris recycling charged to residential generators of yard debris participating in a yard debris collection service, where yard debris is a principal recyclable material, shall only be applied to volumes of yard debris in excess of those specified in Section (1) of this rule.
- (3) A yard debris recycling fee in addition to the base fee charged for garbage collection and disposal may be charged to generators of yard debris participating in yard debris collection programs located at depots where yard debris is a principal recyclable material. This additional fee can be charged at any yard debris recycling depot including those which are not solid waste disposal site depots.

Attachment A

- (4) The total additional yard debris recycling fee charged to any generator of yard debris for collection of yard debris at depots or through a collection service shall be less than the fee that would have been charged for collection of that same volume of yard debris as garbage.
- (5) Yard debris recycling fees in addition to the base fee charged for garbage collection and disposal may be charged for the collection of yard debris on-route or at a depot, where yard debris is not a principal recyclable material.

Review Period

These rules are effective through June 1, 1993 at which time the Department shall review the rules and make any recommendations for deletion, changes or continuation of the rules to the Commission.

Proposed Amendment to Reporting Rules

Standards for Recycling Reports

340-60-045

- (1) The first recycling report shall be submitted to the Department not later than July 1, 1986 on forms supplied by the Department. Subsequent recycling reports shall be submitted to the Department not later than February 15 each year, beginning in 1988, on forms supplied by the Department.
- (2) The recycling report shall include the following information:
 - (a) The materials which are recyclable at each disposal site and within any urbanized area, if there has been a change from the previous year;
 - (b) The manner in which recyclable material is collected or received, if there has been a change from the previous year;
 - (c) Proposed and approved alternative methods for the opportunity to recycle which are to be used in the watershed and justification for the alternative method, if there has been a change from the previous year;
 - (d) Public education and promotion activities in the preceding calendar year;
 - (e) Other information necessary to describe changes from the preceding calendar year in the programs for providing the opportunity to recycle;
 - (f) The amount of material recycled in the preceding calendar year at each disposal site or more convenient location, by type of materials collected;
 - (g) The amount of materials recycled in the previous calendar year by each on-route collection program required by OAR 340-60-020, or by an approved alternative method, by type of materials collected; and
 - (h) If a recycling program required by OAR 340-60-020 collects materials both on-route and at disposal sites or other recycling depots in such a way that it is impractical to separately report the amount of material recycled as required in subsections (2)(f) and (g) of this rule, then the total amount of material recycled

and estimates of the amount of material recycled by the on-route collection program and at each disposal site or more convenient location shall be reported.

- (3) The recycling report shall include attachments including but not limited to the following materials related to the opportunity to recycle:
 - (a) Copies of materials that are being used in the wasteshed as part of education and promotion;
 - (b) A copy of any new city or county collection service franchise, or any new amendment to a franchise, including rates under the franchise; which relates to recycling in areas required by ORS 459.180 and OAR 340-60-020 to provide on-route collection of source separate recyclable materials; and
 - (c) Other attachments which demonstrate the programs for providing the opportunity to recycle.
- (4) By January 25th of each year, collectors, disposal site operators, and other persons providing an opportunity to recycle required under ORS 459.180 and OAR 340-60-020 shall gather and report to their wasteshed representative, on forms provided by the Department, the information required by subsections (2f), (2g), and (2h) of this rule, for inclusion in the annual recycling report for the preceding calendar year.
- (5) In addition to any annual reporting requirement set forth in sections 1-3 of this rule, the number of recycling setouts collected during January, April, July, and October shall be reported to the Department for those local government units where recycling collection is required by ORS 459.180 or required for certification under OAR 340-60-095. This report shall be on forms provided by the Department, and shall be due each following month on the first business day following the 14th of that month. For local government units within the state of Oregon, this report shall be submitted by the person who provides on-route collection required under ORS 459.180. For local government units outside of Oregon, this report shall be submitted, or caused to be submitted, by the regional disposal site that accepts the waste from a local government unit where on-route collection is required for certification under OAR 340-60-095.
- (6) A local government unit or wasteshed representative may develop a written agreement with the Department by which collectors, disposal site operators, and other persons providing an opportunity to recycle under ORS 459.180 and

OAR 340-60-020 shall report information of the type required under section (4) and (5) of this rule directly to the local government unit in place of reporting directly to the Department. Such written agreement shall require that:

- (a) The information gathered by the local government unit be at least as comprehensive as the information required under sections (4) and (5) of this rule;
 - (b) The local government unit collect the recycling data in a manner compatible with the way that data are gathered and analyzed by the Department for the rest of the state;
 - (c) The local government transmit the data to the Department in a timely manner; and
 - (d) The Department shall be able to enforce the reporting of data by local recycling programs to the local government unit in the same manner that the Department enforces direct reporting under sections (4) and (5) of this rule.
- (7) A local government unit or watershed representative may develop a written agreement with the Department by which other reporting mechanism such as reports on implementation of local waste reduction programs are used in place of, and to fulfill the purpose of, recycling reports otherwise required under sections (1) through (3) of this rule. The Department shall be able to enforce these alternative reporting requirements developed under the written agreement in the same manner that the Department enforces the recycling report requirements of this rule.

[6](8)(a) The cities and counties and other affected persons in each watershed should:

- (A) Jointly identify a person as representative for that watershed to act as a contact between the affected persons in that watershed and the Department in matters relating to the recycling report;
 - (B) Inform the Department of the choice of a representative.
- (b) The cities and counties and other affected persons in a watershed shall gather information from the affected

persons in the watershed and compile that information into the recycling report.

[7](9) The Department shall review the recycling report to determine whether the opportunity to recycle is being provided to all persons in the watershed. The Department shall approve the recycling report if it determines that the report contains all the information required under this rules and watershed:

- (a) Is providing the opportunity to recycle, as defined in OAR 340-60-020, for :
 - (A) Each material identified on the list of principal recyclable material for the watershed, as specified in OAR 340-60-030, or has demonstrated that at a specific location in the watershed a materials on the list of the principal recyclable material is not a recyclable material for that specific location; and
 - (B) Other materials which are recyclable material at specific location where the opportunity to recycle is required.
- (b) Has an effective public education and promotion program which meets the requirements of OAR 340-60-040.

**Proposed Amendment to Rule Regarding Prohibiting Disposal of
Source-Separated Recyclable Material**

Prohibition

340-60-080

- (1) In addition to the provisions set forth in ORS 459.195, no person shall dispose of source-separated recyclable material which has been collected or received from the generator by any method other than reuse or recycling except for used oil which may be collected and burned for energy recovery.
- (2) This prohibition shall apply to recyclable material which has not been correctly prepared to reasonable specifications referred to in OAR 340-60-075(1). However, this prohibition shall not apply to unauthorized material that has been deposited by the generator at a recycling depot when it is impractical to recycle the unauthorized material, or to collected recycled material later found to be contaminated with hazardous waste as defined in ORS 466.005, polychlorinated biphenyls, or other material that may pose a hazard to public health and safety that is not a normal constituent of the material being recycled.

RULEMAKING STATEMENTS
for
Proposed Revisions to Existing Rules Pertaining to
the Opportunity to Recycle Act

OAR 340, Division 60

Pursuant to ORS 183.335, these statements provide information on the intended action to adopt and revise rules.

STATEMENT OF NEED:

Legal Authority

ORS 459.170 gives the Environmental Quality Commission the authority to adopt rules to carry out the Opportunity to Recycle Act.

Need for Rule

The rule revisions regarding charging an additional fee for yard debris recycling services are necessary to clarify the intent of ORS 459.190 as it relates to yard debris recycling programs. The rule revisions regarding reporting requirements and prohibition against disposal of source-separated recyclable material are necessary to allow for new methods of centralized reporting and to allow used motor oil to continue to be marketed as fuel oil. The latter rule revision is proposed because there are no regional markets for used motor oil which recycles the material back into a lubricating oil. The Department has identified used motor oil as a material which is desirable to keep out of the landfill and therefore would like to allow the material to go to existing state and regional markets.

Principal Documents

- 1) Existing state statute, ORS 459.165 to 459.200 and 459.250
- 2) OAR Chapter 340-60-005 to 340-60-125

Land Use Consistency

These proposed rules and rule revisions do not affect land use as defined in the Department's coordination program approved by the Land Conservation and Development Commission.

FISCAL AND ECONOMIC IMPACT

The net effect of the rule revisions allowing an additional fee to be charged to residents who generate in excess of a specific amount of yard debris in any month could be to increase the cost of service to all garbage service customers to pay for a portion of a yard debris recycling program, with the remainder of the cost being paid by the participants in the program. There is a chance that certain portions of the general public could be economically impacted as a result of the passage of the rule since the rate paid for garbage and recycling collection service could increase. The Department cannot estimate the increase in the collection service rate since rate structures vary across the state and the way in which the rule is implemented could vary between local programs. As the cost is spread over the larger base of collection service customers so is the benefit to the general public through reduction in waste disposed and general conservation of natural resources.

There should be no significant or adverse economic impact on small businesses or large businesses as a result of these rule revisions, as the rules do not apply to commercial generators of yard debris.

There should be no significant or adverse economic impact on the general public, small businesses, or large businesses as a result of the rule revisions regarding reporting requirements. There will, in fact, be a positive economic impact on the garbage haulers in the Metro area since the rule eliminates duplication of effort on their part.

The net effect of the rule revision regarding prohibiting the disposal of source-separated recyclable material should be to allow the continued collection of used motor oil under the Opportunity to Recycle Act. This should benefit used oil recyclers in the state by maintaining their supply of material. There should be no significant or adverse economic impact on the general public, small businesses or large businesses as a result of this rule revision.

Amendments to OAR 340, Division 60 Regarding Recycling

Date Prepared:

Hearing Date:

Comments Due:

**WHO IS
AFFECTED:**

Amendment of rules could affect individuals participating in yard debris recycling programs, garbage haulers in the Portland Metro area and local governments responsible for adopting rate schedules.

**WHAT IS
PROPOSED:**

The Department of Environmental Quality proposes to adopt amendments to OAR 340-60-005 to 340-60-125 which would clarify ORS 459.190 regarding charging an additional fee for yard debris recycling. In addition, the Department is proposing two housekeeping amendments to provide for a new method of centralized reporting of recycling data and enable used oil to be burned for energy recovery.

**WHAT ARE THE
HIGHLIGHTS:**

Proposed amendments would:

- allow a fee, in addition to the base fee charged for garbage collection and disposal service, to be charged to participants of a yard debris recycling program;
- allow a means for centralized reporting of recycling data through a local government unit; and
- exempt source separated used oil from the requirement that it be reused or recycled as long as it is going to be burned for energy recovery.

**HOW TO
COMMENT:**

Copies of the proposed rule amendments can be obtained from:

Lissa West, Solid Waste Reduction Specialist
Department of Environmental Quality
Hazardous and Solid Waste Division
811 SW Sixth Avenue
Portland, OR 97204
Telephone: 229-6823, 1-800-452-4011

EXISTING RULES OAR 340-60-045 AND OAR 340-60-080

Standards for Recycling Reports

340-60-045

(1) The first recycling report shall be submitted to the Department not later than July 1, 1986 on forms supplied by the Department. Subsequent recycling reports shall be submitted to the Department not later than February 15 each year, beginning in 1988, on forms supplied by the Department.

(2) The recycling report shall include the following information:

(a) The materials which are recyclable at each disposal site and within any urbanized area, if there has been a change from the previous year;

(b) The manner in which recyclable material is collected or received, if there has been a change from the previous year;

(c) Proposed and approved alternative methods for the opportunity to recycle which are to be used in the wasteshed and justification for the alternative method, if there has been a change from the previous year;

(d) Public education and promotion activities in the preceding calendar year;

(e) Other information necessary to describe changes from the preceding calendar year in the programs for providing the opportunity to recycle;

(f) The amount of materials recycled in the preceding calendar year at each disposal site or more convenient location, by type of material collected;

(g) The amount of materials recycled in the previous calendar year by each on-route collection program required by OAR 340-60-020, or by an approved alternative method, by type of material collected; and

(h) If a recycling program required by OAR 340-60-020 collects materials both on-route and at disposal sites or other recycling depots in such a way that it is impractical to separately report the amount of material recycled as required in subsections (2)(f) and (g) of this rule, then the total amount of material recycled and estimates of the amount of material recycled by the on-route collection program and at each disposal site or more convenient location shall be reported.

(3) The recycling report shall include attachments including but not limited to the following materials related to the opportunity to recycle:

(a) Copies of materials that are being used in the wasteshed as part of education and promotion;

(b) A copy of any new city or county collection service franchise, or any new amendment to a franchise, including rates under the franchise; which relates to recycling in areas required by ORS 459.180 and OAR 340-60-020 to provide on-route collection of source separate recyclable materials; and

(c) Other attachments which demonstrate the programs for providing the opportunity to recycle.

(4) By January 25th of each year, collectors, disposal site operators, and other persons providing an opportunity to recycle required under ORS 459.180 and OAR 340-60-020 shall gather and report to their wasteshed representative, on forms provided by the Department, the information required by subsections (2f), (2g), and (2h) of this rule, for inclusion in the annual recycling report for the preceding calendar year.

(5) In addition to any annual reporting requirement set forth in sections 1-3 of this rule, the number of recycling setouts collected during January, April, July, and October shall be reported to the Department for those local government units where recycling collection is required by ORS 459.180 or required for certification under OAR 340-60-095. This report

shall be on forms provided by the Department, and shall be due each following month on the first business day following the 14th of that month. For local government units within the state of Oregon, this report shall be submitted by the person who provides on-route collection required under ORS 459.180. For local government units outside of Oregon, this report shall be submitted, or caused to be submitted, by the regional disposal site that accepts the waste from a local government unit where on-route collection is required for certification under OAR 340-60-095.

(6)(a) The cities and counties and other affected persons in each wasteshed should:

(A) Jointly identify a person as representative for that wasteshed to act as a contact between the affected persons in that wasteshed and the Department in matters relating to the recycling report;

(B) Inform the Department of the choice of a representative.

(b) The cities and counties and other affected persons in a wasteshed shall gather information from the affected persons in the wasteshed and compile that information into the recycling report.

(7) The Department shall review the recycling report to determine whether the opportunity to recycle is being provided to all persons in the wasteshed. The Department shall approve the recycling report if it determines that the report contains all the information required under this rule and wasteshed:

(a) Is providing the opportunity to recycle, as defined in OAR 340-60-020, for:

(A) Each material identified on the list of principal recyclable material for the wasteshed, as specified in OAR 340-60-030, or has demonstrated that at a specific location in the wasteshed a material on the list of the principal recyclable material is not a recyclable material for that specific location; and

(B) Other materials which are recyclable material at specific locations where the opportunity to recycle is required.

(b) Has an effective public education and promotion program which meets the requirements of OAR 340-60-040.

EXISTING RULE OAR 340-60-080 prohibiting disposal by means other than reuse or recycling.

Prohibition

340-60-080

(1) In addition to the provisions set forth in ORS 459.195, no person shall dispose of source-separated recyclable material which has been collected or received from the generator by any method other than reuse or recycling.

(2) This prohibition shall apply to recyclable material which has not been correctly prepared to reasonable specifications referred to in OAR 340-60-075(1). However, this prohibition shall not apply to unauthorized material that has been deposited by the generator at a recycling depot when it is impractical to recycle the unauthorized material, or to collected recycled material later found to be contaminated with hazardous material.

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: February 6, 1991

TO: Environmental Quality Commission

FROM: Lissa West, staff person to the Solid Waste Reduction Advisory Committee

SUBJECT: Solid Waste Reduction Advisory Committee's discussion on charging a fee for recycling services, changes in reporting requirements, and allowing used oil to be burned for energy recovery

The Department held initial discussions on the issue of charging an additional fee for specific recycling services with the Solid Waste Reduction Advisory Committee at both the September and October meetings. The purpose of the discussions was to receive input on a letter of guidance which the Department was preparing for Metro and the City of Portland on the way in which ORS 459.190 applies to yard debris recycling and commercial recycling.

In general, the Solid Waste Reduction Advisory Committee agreed that an additional charge for providing specific recycling services should be allowable but that the charge should be less than the charge that would have been applied if the material was picked up as garbage. The committee agreed with the Department that many of the details would have to be worked out in the development of rules and should not be contained in the guidance letter.

The Metro Waste Reduction Subcommittee expressed their concern about this issue at the October meeting. They believed that a "user-pay" system (where each participant pays for the level at which they participate in the program) was the fairest way to fund the program since some residents do not generate any yard debris at all.

A smaller work group was put together to provide input to the Department on drafting rules regarding fees which could be charged for yard debris recycling programs. Half of the members of the work group are members of the Solid Waste Reduction Advisory Committee. The work group agreed that the rules, as they are proposed in this staff report, were the most reasonable approach to the issue.

The full Solid Waste Reduction Advisory Committee reviewed a draft of the rules included in this report at their meeting on

Memo to: Environmental Quality Commission
February 4, 1991
Page 2

February 6, 1991. The committee suggested minor wording changes to clarify certain portions of the rule. These changes have been incorporated into the rule included in this report as Attachment A.

The Solid Waste Reduction Advisory Committee reviewed the proposed rule changes on reporting requirements and used oil at the October 12, 1990 meeting. The Committee agreed with the changes to be made to allow centralized reporting as long as the quality of the data was maintained and the data was comparable to other data being collected throughout the state.

The Committee voiced some concern over allowing used oil to be burned for energy recovery since this could set a precedent for other materials and could undermine the efforts to develop a market for re-refining of used oil. However, given the fact that used oil is currently being re-evaluated at the federal level to determine if it should be considered a hazardous waste and companies are therefore reluctant to begin dealing with the material, the Committee agreed that an exception could be made in the rule for used oil. The Committee also agreed that any materials which were added to the list of principal recyclable materials could be exempted from this rule at the time they are added.

DAVE FROHNMAYER
ATTORNEY GENERAL

JAMES E. MOUNTAIN, JR.
DEPUTY ATTORNEY GENERAL



DEPARTMENT OF JUSTICE

PORTLAND OFFICE
1515 SW 5th Avenue
Suite 410
Portland, OR 97201

Telephone: (503) 229-5725
FAX: (503) 229-5120

July 6, 1990

RECEIVED
JUL 09 1990

Hazardous & Solid Waste Division
Department of Environmental Quality

Jan Whitworth
Hazardous and Solid
Waste Division
Department of Environmental
Quality
811 S.W. 6th
Portland, OR 97204

Re: Limitation on Charging for Collection of Recyclables;
ORS 459.120
DOJ No. 340-420-P0021-88

Dear ^{Jan} Ms. Whitworth:

You requested advice concerning interpretation of
ORS 459.190 which limits charges for collection of source
separated recyclable materials.

Discussion

ORS 459.190 provides:

"A collection service or disposal site may charge a person who source separates recyclable material and makes it available for reuse or recycling less, but not more, for collection and disposal of solid waste and collection of recyclable material than the collection service charges a person who does not source separate recyclable material."

Jan Whitworth
July 6, 1990
Page Two

Legislative Intent

The section was included in the Oregon Recycling Opportunity Act to encourage recycling. The premise of the Act was that recycling of certain materials is desirable as a matter of social, economic, and environmental policy, and is ultimately cheaper than disposal. ORS 459.190 was expressly intended to prevent refuse haulers from charging an extra collection fee to customers who participate in source separation of their recyclables, while charging the customary garbage collection rate to non-participants.¹

The section thus prohibits an overt rate disincentive to recycling with respect to collection service customers.²

Container Based Charges

You have indicated that some collection services desire to charge for collection of recyclables on a container volume basis. The premise for such charges would be that the collectors would not be charging more for collection of recyclables than would be charged for equivalent garbage collection on a container volume basis.

With respect to residential customers, volume charges for collection of recyclable materials³ would appear to violate ORS 459.190. It does not appear possible to consistently determine equivalent volumes of residential garbage and

¹ See, e.g., Section-by-Section Analysis of SB 405A by Lorie Parker, Oregon Environmental Council, June 28, 1983; Hearing Before the Senate Committee on Energy and Environment, May 13, 1983.

² The statute allows, but does not require, lower refuse collection rates for those customers who recycle. Lower rates for those persons who recycle were not mandated because of the difficulty in actually monitoring participation.

³ You have recently indicated that "yard debris" is now considered a recyclable material, and may involve significantly higher costs for large volume collection than the costs of customary recyclables. Yard debris was not specifically considered a recyclable material at the time of inclusion of ORS 459.190; therefore volume-based rates for collection of yard debris might be appropriately considered by the commission in rulemaking.

Jan Whitworth
July 6, 1990
Page Three

recyclables in a manner which would not frustrate the intent of the legislation. A volume based charge is likely to discriminate against those who set out their source separated recyclables in separate containers along with their garbage or on alternate collection days. As an example of the potential for discriminatory effect, if container volume charges were imposed, a customer with a half-full container of garbage and a container of recyclables could be charged for collection of two containers, thereby imposing an added cost of collection for recyclables on the customer who recycles.

Separate Collection Services

The legislative history relevant to ORS 459.190 indicates that the possibility of separate collection services performing the refuse pickup and the recycling pickup respectively was contemplated.⁴ The legislative discussion assumed that franchising of haulers would be the norm under ORS 459.200 and that the respective collection services would be bid accordingly. In such a situation, the costs of collection of recyclables would be established in the rate base for all collection service customers within the franchise area.

Where there is no franchise or other applicable local government control, the legislative intent of ORS 459.190 would appear to prohibit additional separate charges to those customers who source separate for collection of recyclables, whether by the same or different haulers. The haulers and local governments may arrange to cover the costs of recyclables collection by passing the additional costs through to all service customers.

Residential v. Commercial Collection

You also ask whether there is any distinction in the applicability of ORS 459.190 between residential and commercial collection service customers. The Act does not make such a distinction. Therefore, any rates charged by collection services for pickup of commercial recyclables must not violate the intent of the provision.

⁴ See Hearings Before the House Committee on Environment and Energy, June 28, 1983.

Jan Whitworth
July 6, 1990
Page Four

In the commercial setting, however, it may be more difficult to determine how ORS 459.190 actually applies. The portion of a commercial institution's waste which consists of recyclables may vary widely by types of facility, and the volumes of recyclables may also vary significantly. For example, large volumes of recyclables may constitute the bulk of a facility's solid waste stream. Under such circumstances, it would appear that the commission has some latitude to effect a practicable application through rulemaking.

Fair Market Value Recyclers

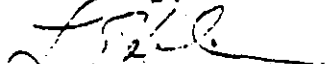
Your request asks whether ORS 459.192 has any effect on implementation of ORS 459.150. These two provisions are related only to the extent that commercial "fair market value" recyclers are involved. ORS 459.182 exempts so called fair market value recyclers from franchise restrictions and other requirements of the Act. This provision was intended to allow wholesalers and recyclers to continue to compete in the market (usually commercial and industrial markets) for recyclable materials. While a fair market value recycler can legally compete for residential as well as commercial recyclables, they are now required to collect all residential recyclable materials, not just the profitable ones. OAR 340-60-052.

Out-of-State Opportunity to Recycle

Your final question concerns the ORS 459.305 certification requirement for shipments of solid waste to Oregon.

ORS 459.305 requires a certification by the DEQ that a local government provides an opportunity to recycle equivalent to Oregon's before waste from that jurisdiction may be accepted at a regional landfill in Oregon. Since ORS 459.190 is part of the Oregon Recycling Opportunity Act it is applicable when evaluating a jurisdiction's recycling program for equivalency. Therefore, a local jurisdiction shipping waste to an Oregon regional landfill may not charge or allow discriminatory charges for collection of recyclables.

Sincerely,



Larry Edelman

Assistant Attorney General

LE:aa
#2767H

REQUEST FOR EQC ACTION

Meeting Date: March 11, 1991
Agenda Item: D
Division: Water Quality
Section: Industrial & On-Site

SUBJECT:

Authorization for Rulemaking Hearing on Proposed Increases to On-Site Sewage Program Fees

PURPOSE:

Fee increases are proposed to generate about \$1.7 million during the 1991-93 biennium to fund the fee-supported portion of the on-site sewage treatment and disposal program, contingent upon legislative approval of the Governor's recommended program budget.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Potential Strategy, Policy, or Rules
 - Agenda Item ___ for Current Meeting
 - Other: (specify)

- Authorize Rulemaking Hearing
- Adopt Rules

- Proposed Rules
- Rulemaking Statements
- Fiscal and Economic Impact Statement
- Public Notice

- Attachment A
- Attachment B
- Attachment C
- Attachment D



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



Meeting Date: March 11, 1991
Agenda Item: D
Page 2

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

DESCRIPTION OF REQUESTED ACTION:

The Department of Environmental Quality (Department) requests the Environmental Quality Commission (Commission) authorize public hearings to receive comment on the proposed amendments to the administrative rule establishing maximum fees that may be charged applicants requesting site evaluations, permits, licenses and other services. The proposed fee schedule is presented in Attachment A. These services are provided by the Department and by counties having a memorandum of agreement with the Department to implement the on-site program. A brief description of the on-site program objectives, the responsibilities and relationship between the Department and the agreement counties is contained in Attachment H.

The Governor's recommended budget for the 1991-93 biennium estimates that approximately \$1.7 million in fee revenues must be generated to operate and maintain the on-site program as administered by the Department. Included in this budget is a fee supported decision package, \$461,000, to allow the hiring of additional staff. During the recession in the early 1980's, there were severe staff reductions in the on-site program caused by a drastic reduction in new home construction. After the economy picked up again, the on-site program staff was not increased to the strength necessary to accomplish the objectives of the program. With the current (reduced) staff level, the Department is not able to perform its responsibilities satisfactorily. The public experiences lengthy delays (up to 6 to 8 weeks) in response to applications for services. Staff found it necessary to discontinue their involvement in several aspects of the program that were designed to reduce environmental and public health risks. In order for the program objectives to be met, additional staff must be brought into the program.

Staff have reviewed the program activity records for the last 2 and 1/2 years, and based on that review, estimated the number of on-site applications the Department may receive in FY 92. Using those estimates as the basis of predicting activity levels for the 91-93 biennium, staff have projected fee revenues that might be expected with the proposed new schedule of fees (Attachment G) and with the current fee schedule (Attachment F). If the proposed fee schedule is adopted, the Department projects that approximately \$1.7 million will be available to fund the fee-supported portion of the program. However, without an amendment to the schedule of fees, the estimated fee revenue will be approximately \$1.1 million, which is about \$100,000 less than the Governor's projected base revenue required to fund the program without the decision package.

AUTHORITY/NEED FOR ACTION:

<input checked="" type="checkbox"/> Required by Statute: <u>ORS 454.745 (4)</u>	Attachment <u>E</u>
Enactment Date: <u>1973</u>	
<input checked="" type="checkbox"/> Statutory Authority: <u>ORS 454.745 (4)</u>	Attachment <u>E</u>
<input type="checkbox"/> Pursuant to Rule: _____	Attachment _____
<input type="checkbox"/> Pursuant to Federal Law/Rule: _____	Attachment _____
<input type="checkbox"/> Other: _____	Attachment _____
<input type="checkbox"/> Time Constraints: _____	

DEVELOPMENTAL BACKGROUND:

<input type="checkbox"/> Advisory Committee Report/Recommendation	Attachment _____
<input type="checkbox"/> Hearing Officer's Report/Recommendations	Attachment _____
<input type="checkbox"/> Response to Testimony/Comments	Attachment _____
<input type="checkbox"/> Prior EQC Agenda Items: (list)	Attachment _____
<input type="checkbox"/> Other Related Reports/Rules/Statutes:	Attachment _____
<input checked="" type="checkbox"/> Supplemental Background Information:	
Estimated DEQ Fee Revenue for FY 92, Under Existing Fee Schedule	Attachment <u>F</u>
Estimated DEQ FEE Revenue for FY 92, Under Proposed Fee Schedule	Attachment <u>G</u>
Brief Description of On-Site Program Objectives and Responsibilities	Attachment <u>H</u>

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The regulated/affected community will have an opportunity to offer comment on the proposed rule amendment as part of the rulemaking process. If the proposed amendments are adopted, applicants for on-site services and licenses will need to submit increased fees in accordance with the new fee schedule. Many of the fees are proposed to be increased by approximately 50% above the fees that were adopted by the Commission on May 11, 1988. In agreement counties, the surcharge on most applications will increase by \$5. Also, the surcharge increment for site evaluations will increase by \$5. A \$10 surcharge is proposed on applications for existing system evaluation reports. The Department is proposing to bill permit holders \$25 when correction deficiencies found during the pre-cover inspection have not been corrected and thereby cause staff to make additional unplanned visits to inspect the system construction. The fee for a repair permit to correct a minor sewage disposal system problem (such as a broken pipe or damaged septic tank) for a system serving a commercial facility is proposed to be the same as would be charged for a minor repair permit for a system serving a single family dwelling. Systems using pumps or siphons, other than sand filter systems or pressurized systems, may have an additional \$25 added to the normal permit cost due to the additional time required for inspection. Sewage disposal service companies will need to pay higher fees for the annual license they must obtain from the Department. The increase will be \$25 for each license, and \$10 to \$15 for each pumping vehicle inspected.

Agreement counties will collect from applicants the increased surcharge applicable to each application they receive, and remit the collected surcharges to the Department as stipulated in the agreement. This should have no appreciable effect on these offices because they have been collecting the application surcharges for the Department since 1981. Each agreement county will have the ability to adjust its on-site fee schedule, provided the adjustments are not contrary to the intergovernmental agreement with the Department.

PROGRAM CONSIDERATIONS:

The proposed fee schedule, if adopted, will generate the revenue the Department requires to fund the fee-supported portion of the on-site sewage disposal program, as identified in the Governor's proposed budget. This will allow the

Department to increase staff necessary to accomplish the program objectives. However, if the proposed fee schedule is not taken to hearing or not adopted, the revenue generated from fees and surcharges will be significantly below the Governor's proposed budget, and will either require the difference to be made up from state general funds or major adjustments will need to be made to the program to reduce expenditures.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Authorize the Department to hold public hearings on the proposed fee schedule.

The Governor's proposed FY 91-93 budget estimates that slightly more than \$1.2 million in fee revenue will be required to provide the current level of service to the public for the biennium. However, because the Department believes service to the public must be improved in order to accomplish the program objectives, the Governor's proposed budget includes a decision package to increase staff at both the program level and within the regions. The decision package relies upon fees to provide the funding base, and would therefore increase the fee revenue necessary to fund the program to approximately \$1.7 million. Given the numbers and types of applications expected during the biennium, the proposed schedule of maximum fees for on-site activities was developed to provide an estimated fee revenue of about \$1.7 million.

The agreement counties rely on fee revenues to support a major portion of their involvement in the on-site program. County general fund monies make up the difference between fee revenues and program expenditures. Several counties must reduce their reliance on the county general fund and, therefore, find it necessary to increase their application fees to maintain the current level of service they provide to the public. Some counties with fee schedules at the maximum level currently established by the Commission will increase their fees when and if the Commission adopts the proposed new fee schedule.

2. Do not authorize the Department to conduct hearings.

Without an adjustment to the schedule of maximum fees, the Department projects the fee revenue for the biennium will be slightly more than \$1.1 million. This is nearly \$0.6

million below the Governor's recommended budget (decision package included), and more than \$0.1 million below the estimated base budget necessary to maintain current service levels to the public. Taking this option will cause further erosion of program objectives, unless scarce general fund dollars are made available.

Each county that needs to increase application fees above the level currently established by rule could petition the Commission individually for authorization to adopt higher fees. Each petition would require the Department to proceed through a rulemaking process. As many as twenty-three (23) petitions could be submitted. Even if only a fraction of the counties introduced petitions, the Department's program resources would be crippled. It can be expected that some counties would re-examine whether it is in their best interests to continue program involvement. Those that elect not to maintain the agreement pass the responsibility back to the Department.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends approval of Alternative, Authorization for the Department to hold public hearings on the proposed schedule of maximum fees, as contained in Attachment A.

The Governor's recommended budget projects that for the 1991-93 biennium, slightly more than \$1.7 million in fee revenue will be necessary to fund the fee supported portion of the on-site program. This projection includes an estimated \$1.2 million to maintain the program at existing levels through the biennium, and a fee supported decision package to increase staff levels so that service to the public may be improved and the program objectives can be accomplished. The existing fee schedule is projected to provide slightly more than \$1.1 million in fee revenue. If the on-site fees are not increased, additional state general fund dollars will be needed if the program's objectives are to be met.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Establishing fees as a revenue source for funding program expenditures is consistent with the strategic plan, agency policy, and legislative policy.

Meeting Date: March 11, 1991
Agenda Item: D
Page 7

ISSUES FOR COMMISSION TO RESOLVE:

NONE

INTENDED FOLLOWUP ACTIONS:


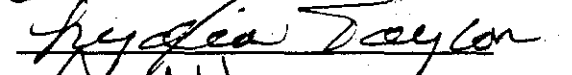

If the Commission authorizes the Department to conduct public hearings, the public notice and copy of the proposed amendments to the fee schedule rule will be sent to all known interested persons, and public hearings will be conducted. Following receipt, summary and evaluation of testimony, the Department will return to the Commission and request adoption of the proposed rule amendment, contingent upon legislative approval of the Governor's recommended program budget.

Approved:

Section:

Division:

Director:

Report Prepared By: Sherman O. Olson, Jr.

Phone: 229-6443

Date Prepared: February 5, 1991

SOO:crw
IW\WC7846
2/5/91

**OREGON ADMINISTRATIVE RULES
340-71-140**

NOTE:

The underlined portions of text represent proposed additions made to the rules.

The [bracketed] portions of text represent proposed deletions made to the rules.

EXEMPTION FROM PLAN SUBMITTAL TO THE DEPARTMENT

340-71-140 FEES -- GENERAL.

- (1) Except as provided in section (5) of this rule, the following nonrefundable fees are required to accompany applications for site evaluations, permits, licenses and services provided by the Department.

ON-SITE SEWAGE DISPOSAL SYSTEMS	MAXIMUM FEE
(a) New Site Evaluation:	
(A) Single Family Dwelling:	
(i) First Lot.....	[\$160] <u>\$245</u>
(ii) Each Additional Lot Evaluated During Initial Visit	[\$130] <u>\$205</u>
(B) Commercial Facility System:	
(i) For First One Thousand (1000) Gallons Projected Daily Sewage Flow	[\$160] <u>\$245</u>
(ii) Plus For Each Five Hundred (500) Gallons or Part Thereof Above One Thousand (1000) Gallons, for Projected Daily Sewage Flows up to Five Thousand (5,000) Gallons.....	[\$-50] <u>\$ 75</u>
(C) Site Evaluation Report Review	[\$100] <u>\$200</u>
(D) Fees for site evaluation applications made to an agreement county shall be in accordance with that county's fee schedule.	
(E) Each fee paid for a site evaluation report entitles the applicant to as many site inspections on a single	

parcel or lot as are necessary to determine site suitability for a single system. The applicant may request additional site inspections within ninety (90) days of the initial site evaluation, at no extra cost.

- (F) Separate fees shall be required if site inspections are to determine site suitability for more than one (1) system on a single parcel of land.

(b) Construction-Installation Permit:

- (A) For First One Thousand (1000) Gallons Projected Daily Sewage Flow:

- (i) Standard On-Site System [~~\$160~~] \$245

- (ii) Alternative System:

(I) Aerobic System	[\$160]	<u>\$245</u>
(II) Capping Fill	[\$275]	<u>\$415</u>
(III) Cesspool	[\$160]	<u>\$245</u>
(IV) Disposal Trenches in Saprolite	[\$160]	<u>\$245</u>
(V) Evapotranspiration-Absorption.	[\$160]	<u>\$245</u>
(VI) Gray Water Waste Disposal Sump	[\$-80]	<u>\$120</u>
(VII) Holding Tank	[\$160]	<u>\$245</u>
(VIII) Pressure Distribution	[\$160]	<u>\$270</u>
(IX) Redundant	[\$160]	<u>\$245</u>
(X) Sand Filter	[\$295]	<u>\$445</u>
(XI) Seepage Pit	[\$160]	<u>\$245</u>
(XII) Seepage Trench	[\$160]	<u>\$245</u>
(XIII) Steep Slope	[\$160]	<u>\$245</u>
(XIV) Tile Dewatering	[\$160]	<u>\$245</u>

~~[(iii) The permit fee required for standard, cesspool, disposal trenches in saprolite, seepage pit, steep slope and seepage trench systems may be reduced to one hundred five dollars (\$105) providing the permit application is submitted to the Agent within six (6) months of the site evaluation report date, the system will serve a single family dwelling, and a site visit is not required before issuance of the permit.]~~

(iii) At the discretion of the Agent, the permittee may be assessed a reinspection fee, not to exceed \$25, when a precover inspection correction notice requires correction of improper construction and, at a subsequent inspection, the Agent finds system construction deficiencies have not

been corrected. The Agent may elect not to make further precover inspections until the reinspection fee is paid.

(iv) With the exceptions of sand filter and pressure distribution systems, a \$25 fee may be added to all permits that specify the use of a pump or dosing siphon.

- (B) For systems with projected daily sewage flows greater than one thousand (1,000) gallons, the Construction-Installation permit fee shall be equal to the fee required in OAR 340-71-140 (1)(b)(A) plus [~~\$10~~] \$15 for each five hundred (500) gallons or part thereof above one thousand (1,000) gallons.

NOTE: Fees for construction permits for systems with projected daily sewage flows greater than five thousand (5,000) gallons shall be in accordance with the fee schedule for WPCF permits.

(C) Commercial Facility System, Plan Review:

- (i) For a system with a projected daily sewage flow of less than six hundred (600) gallons, the cost of plan review is included in the permit application fee.
- (ii) For a system with a projected daily sewage flow of six hundred (600) gallons, but not more than one thousand (1,000) gallons projected daily sewage flow [~~\$-60~~] \$100
- (iii) Plus for each five hundred (500) gallons or part thereof above one thousand (1,000) gallons, to a maximum sewage flow limit of five thousand (5,000) gallons per day [~~\$-15~~] \$ 25
- (iv) Plan review for systems with projected sewage flows greater than five thousand (5,000) gallons per day shall be pursuant to OAR 340, Division 52.

(D) Permit Renewal:

- (i) If Field Visit Required [~~\$100~~] \$150
- (ii) No Field Visit Required [~~\$-55~~] \$ 85

NOTE: Renewal of a permit may be granted to the original permittee if an application for permit renewal is filed prior to the original permit expiration date. Refer to OAR 340-71-160(10).

- (E) Alteration Permit [~~\$140~~] \$245
 - (F) Repair Permit:
 - (i) Single Family Dwelling:
 - (I) Major [~~\$-75~~] \$115
 - (II) Minor [~~\$-50~~] \$ 75
 - (ii) Commercial Facility: [--]
 - (I) Major -- The appropriate fees identified in paragraphs (1)(b)(A), [and] (B), and (C) of this rule appl[ies]y.
 - (II) Minor \$ 75
 - (G) Permit Denial Review [~~\$100~~] \$200
 - (c) Authorization Notice:
 - (A) If Field Visit Required [~~\$100~~] \$150
 - (B) No Field Visit Required [~~\$-55~~] \$ 85
 - (C) Authorization Notice Denial Review [~~\$100~~] \$200
 - (d) Annual Evaluation of Alternative System (Where Required) [~~\$100~~] \$150
 - (e) Annual Evaluation of Large System (2501 to 5000 GPD) [~~\$100~~] \$150
 - (f) Annual Evaluation of Temporary or Hardship Mobile Home..... [~~\$-60~~] \$ 90
 - (g) Variance to On-Site System Rules \$225
- NOTE:** The variance application fee may be waived if the applicant meets the requirements of OAR 340-71-415(5).
- (h) Rural Area Variance to Standard Subsurface Rules:
 - (A) Site Evaluation [~~\$160~~] \$245

NOTE: In the event there is on file a site evaluation report for that parcel that is less than ninety (90) days old, the site evaluation fee shall be waived.

(B) Construction-Installation Permit -- The appropriate fee identified in subsection (1)(b) of this rule applies.

(i) Sewage Disposal Service:

(A) Annual Business License [~~\$150~~] \$ 175

~~[EXCEPTION:--The application fee for a license valid during the period July 1, 1983 through June 30, 1984 shall be \$100.]~~

(B) Transfer of or Amendments to License [~~\$-75~~] \$ 100

(C) Reinstatement of Suspended License [~~\$100~~] \$ 125

(D) Pumper Truck Inspection, First Vehicle:

(i) Each Inspection..... [~~\$-35~~] \$ 50

(ii) Each Additional Vehicle, Each Inspection..... [~~\$-25~~] \$ 35

(j) Experimental Systems: Permit..... [~~\$100~~] \$ 1,000

(k) Existing System Evaluation Report [~~\$100~~] \$ 150

NOTE: The fee shall not be charged for an evaluation report on any proposed repair, alteration or extension of an existing system.

(2) Contract County Fee Schedules. Pursuant to ORS 454.745(4), fee schedules which exceed maximum fees in ORS 454.745(1), and section (1) of this rule, are established for contract counties as follows:

(a) Multnomah County: See OAR 340-72-070.

(b) Jackson County: See OAR 340-72-080.

(c) Linn County: See OAR 340-72-090.

(3) Contract County Fee Schedules, General:

(a) Each county having an agreement with the Department under ORS 454.725 shall adopt a fee schedule for services rendered and permits [~~and licenses~~] to be issued.

- (b) A copy of the fee schedule and any subsequent amendments to the schedule shall be forwarded to the Department.
- (c) Fees shall not:
 - (A) Exceed actual costs for efficiently conducted services; or
 - (B) Exceed the maximum established in section (1) of this rule, unless approved by the Commission pursuant to ORS 454.745(4).
- (4) Surcharge. In order to offset a portion of the administrative costs of the statewide on-site sewage disposal program, a surcharge for each activity, as set forth in the following schedule, shall be levied by the Department and by each Agreement County. Proceeds from surcharges collected by the Department and Agreement Counties shall be accounted for separately. Each Agreement County shall forward the proceeds to the Department as negotiated in the memorandum of agreement (contract) between the county and the Department.

Activity	Surcharge
(a) Site evaluation, for each site examined, based on a projected flow of:	
A. 1,000 gallons or less	{ \$ -15 } <u>\$ 20</u>
B. 1,001 gallons to 2,000 gallons	{ \$ -30 } <u>\$ 40</u>
C. 2,001 gallons to 3,000 gallons	{ \$ -45 } <u>\$ 60</u>
D. 3,001 gallons to 4,000 gallons	{ \$ -60 } <u>\$ 80</u>
E. 4,001 gallons or more	{ \$ -75 } <u>\$ 100</u>
(b) Construction-Installation Permit	{ \$ --5 } <u>\$ 10</u>
(c) Repair Permit	{ \$ --5 } <u>\$ 10</u>
(d) Alteration Permit	{ \$ --5 } <u>\$ 10</u>
(e) Authorization Notice	{ \$ --5 } <u>\$ 10</u>
<u>(f) Existing System Evaluation Report.....</u>	<u>\$ 10</u>

- (5) Refunds. The Agent may refund a fee accompanying an application if the applicant withdraws the application before the Agent has done any field work or other substantial review of the application.

STATEMENT OF NEED FOR RULE MAKING

Pursuant to ORS 183.335(2), this statement provides information on the Environmental Quality Commission's intended action to adopt a rule.

(1) Legal Authority:

ORS 454.745(4) provides that the Commission, at the request of the Director or any Contract Agent, may by rule increase fees above the maximum levels established in Subsection (1) of ORS 454.745. Fee increases permitted by the Commission shall be based upon actual costs for efficiently conducted minimum services as developed by the Director or Contract Agent.

ORS 454.625, which authorizes the Environmental Quality Commission to adopt rules pertaining to on-site sewage disposal.

(2) Need for the Rule:

The Governor's recommended budget for the on-site sewage disposal program projects that slightly more than \$1.7 million in fee revenues must be generated to fund the fee supported portion of the program. Based on estimated program activities during the 91-93 biennium, fee revenues using the current schedule of maximum fees are expected to provide about \$1.1 million. To raise the estimated \$0.6 million additional in fees necessary to fund the program, the rule establishing the fee schedule must be amended.

(3) Principle Documents Relied Upon in This Rulemaking:

- (a) Oregon Revised Statute 454.745(4).
- (b) Oregon Administrative Rule 340-71-140.
- (c) Proposed rule establishing maximum fees the Department may charge for specific on-site activities.
- (d) Letter from Richard L. Polson dated December 21, 1990.
- (e) EQC Staff Report, Agenda Item I, March 11, 1988, EQC Meeting
- (f) Portion of 1991-93 Governor's Recommended Budget Concerning Subsurface Sewage Disposal Fee Revenue.
- (g) Monthly On-Site Activity Reports From the Department's Regional and Branch Offices.
- (h) Summary of OSS Field Services & Fiscal Office Revenue for FY '89, FY '90, and FY '91.

LAND USE COMPATIBILITY STATEMENT

The proposed rule establishing maximum fees for on-site services provided by the Department does not affect land use as defined in the Department's coordination program approved by the Land Conservation and Development Commission.

FISCAL AND ECONOMIC IMPACT

The proposed fee maximums for on-site services will result in higher fees to most applicants. Although the increases range from 17% to 1000%, most of the fees will increase by approximately 50% above the fee maximums established by the Environmental Quality Commission on May 11, 1988. The fee for a repair permit to correct a minor sewage disposal system problem (for a system serving other than a single family dwelling) is being reduced.

Impact to the general public. Individuals will see a direct increase in the fees they pay for on-site services. In counties the Department provides field services, the cost of a site evaluation report and a standard system construction-installation permit will both rise by \$90. Fees for other types of services the public may submit applications for will be increased by amounts ranging from \$30 (minor system repair permit) to \$900 (experimental system permit). Also, permit holders that do not correct construction deficiencies found during pre-cover inspections that causes additional site visits by staff may be billed \$25 to defray the revisit costs incurred by the Department. Systems using effluent pumps or siphons, other than sand filter or pressurized systems, may have an additional \$25 added to the normal permit fee. In counties where the Department has delegated program implementation to local units of government, the direct cost increase for each application will be \$5. However, because each delegated office may increase the fees they charge to the maximum limit established for the Department, applicants in those counties may be indirectly impacted by the Department's new fee schedule.

Impact on small business. The fee changes may affect small businesses both directly and indirectly. Those that submit applications for on-site activities to the Department will be subjected to the same costs as the public. Sewage disposal service companies will need to pay higher fees for the annual licenses they must obtain from the Department. The increase will be \$25 for each license, and \$10 to \$15 for each pumping vehicle. These companies may be indirectly affected if the \$25 revisit fee is passed down to them because of uncorrected construction deficiencies. Some businesses may have bid for construction projects without considering higher application fees, and may have to pay the difference without compensation. The new fee schedule reduces the permit cost to repair a sewage disposal system for some businesses, if the repair is considered to be minor.

Impacts on large businesses. The fee changes will affect large businesses to the same extent as the public and small businesses.

Impact on Local Governments. The fee changes will affect local governments to the same extent as the public and small businesses. However, those local governments having an intergovernmental agreement with the Department, to implement portions of the on-site program within specific counties, will collect from applicants the increased surcharge applicable to each application they receive, and remit the collected surcharges to the Department consistent with the agreement. This should have no appreciable affect on these offices because they have been collecting the application surcharge for the Department since 1981. An indirect impact is that each agreement office will have the ability to adjust its on-site fee schedule, provided the adjustments are not contrary to the intergovernmental agreement with the Department.

Impact on state agencies. The new fee schedule will generate additional revenues the Department of Environmental Quality will use to offset expenses incurred by the Department in its administration and implementation of the on-site sewage treatment and disposal program. The majority of the new revenues will provide funding for additional staff positions that are necessary to accomplish the program objectives. Other state agencies will be affected to the same extent as large and small businesses and the public.

A CHANCE TO COMMENT ON...

PROPOSED INCREASE IN THE ON-SITE SEWAGE DISPOSAL PROGRAM APPLICATION FEES

Notice Issued: March 11, 1991
Comments Due: April 19, 1991

**WHO IS
AFFECTED:**

Persons submitting applications for on-site sewage disposal activities and sewage disposal service licenses.

**WHAT IS
PROPOSED**

All on-site sewage disposal program fees, including surcharges, are being increased, with two exceptions. This will provide the revenue necessary to fund the fee-supported portion of the program. The 1991-93 Governor's recommended budget estimates that about \$1.7 million in fee revenues must be generated to provide for this fund base. Also, additional fees are proposed for systems requiring pumps or siphons, and when uncorrected construction deficiencies cause additional system pre-cover inspection visits by staff. A surcharge is proposed for existing system evaluation report applications.

**WHAT ARE
THE
HIGHLIGHTS:**

Many fees are being increased by approximately 50%. Some fees are proposed to be increased by more than 50% to more accurately reflect overall costs to the Department in providing the service. The surcharge increment on each application is proposed to be increased by \$5.

**HOW TO
COMMENT:**

Public hearings are scheduled at the following locations on the dates and times indicated:

PENDLETON

State Office Building
3rd Floor Conference Room
700 S.E. Emigrant
Pendleton, Oregon
April 16, 1991, at 10 am

BEND

Cascade Natural Gas Bldg.
Conference Room
334 N.E. Hawthorne
Bend, Oregon
April 17, 1991, at 10 am



811 S.W. 6th Avenue
IWA 718-3609 OR 97204

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.

ROSEBURG

State Office Building
Conference Room B
1937 W. Harvard Blvd.
Roseburg, Oregon
April 18, 1991, at 10 am

PORTLAND

Executive Building
Conference Room 3-A
811 S.W. Sixth Avenue
Portland, Oregon
April 19, 1991, at 10 am

A Department of Environmental Quality staff member will be appointed to preside over and conduct each of the hearings. Written comments should be sent to DEQ, Water Quality Division, Industrial and On-Site Waste Water Section, 811 S.W. Sixth Avenue, Portland, Oregon 97204, but must be received by 5 p.m. on April 19, 1991.

All requests for information or copies of the proposed amendments should be directed to Mr. Sherman Olson, Industrial and On-Site Waste Water Section, 229-6443 or toll free, 1-800-452-4011.

WHAT IS THE
NEXT STEP:

After reviewing all the public testimony and making appropriate changes, the fee schedule will be presented to the Environmental Quality Commission for adoption at their regular meeting in June, contingent upon legislative approval of the Governor's recommended budget for the on-site program.

section expire on July 1 next following the date of issuance. (1973 c.835 §217; 1977 c.828 §2; 1983 c.16 §3)

454.705 Bond; content; action on bond; limit on surety's liability; notice of bond.

(1) An applicant for a license required by ORS 454.695 shall execute a bond in the penal sum of \$2,500 in favor of the State of Oregon. The bond shall be executed by the applicant as principal and by a surety company authorized to transact a surety business within the State of Oregon as surety.

(2) The bond shall be filed with the Department of Environmental Quality and shall provide that:

(a) In performing sewage disposal services, the applicant shall comply with the provisions of ORS 454.605 to 454.745 and with the rules of the Environmental Quality Commission regarding sewage disposal services; and

(b) Any person injured by a failure of the applicant to comply with ORS 454.605 to 454.745 and with the rules of the commission regarding sewage disposal services shall have a right of action on the bond in the name of the person, provided that written claim of such right of action shall be made to the principal or the surety company within two years after the services have been performed; and

(c) The maximum aggregate liability of the surety on the bond shall be \$2,500.

(3) Every person licensed pursuant to ORS 454.695 shall deliver to each person for whom services requiring such license are performed, prior to the completion of such services, a written notice of the name and address of the surety company which has executed the bond required by this section and of the rights of the recipient of such services as provided by subsection (2) of this section. (1973 c.835 §218; 1975 c.171 §1)

454.710 Deposit in lieu of bond. In lieu of the surety bond required by ORS 454.705, an applicant for a license required by ORS 454.695 may deposit, under the same terms and conditions as when a bond is filed, the equivalent value in cash or negotiable securities of a character approved by the State Treasurer. The deposit is to be made in a bank or trust company for the benefit of the department. Interest on deposited funds or securities shall accrue to the depositor. (1981 c.148 §2)

454.715 Suspension or revocation of license. Subject to ORS 183.310 to 183.550, the Department of Environmental Quality at any time may suspend or revoke any license issued pursuant to ORS 454.695 if it finds:

(1) A material misrepresentation or false statement in the application for the license.

(2) Failure to comply with the applicable provisions of this chapter.

(3) Violation of any rule of the Environmental Quality Commission regarding sewage disposal services. (1973 c.835 §219)

454.725 Contracts with local governments; disbursement of fees to local governments. (1) The Department of Environmental Quality may enter into agreements with local units of government for the local units to perform the duties of the department under ORS 454.635, 454.655, 454.665 and 454.695.

(2) If a fee is collected by a local unit of government performing duties under subsection (1) of this section, the department may disburse all or part thereof to the local unit.

(3) The Department of Environmental Quality may enter into agreements with local units of government when the local units so request for the local units to perform the variance duties of the department under ORS 454.657 and 454.660 subject to variance criteria specified in the agreement by the department. Each county performing variance duties under an agreement may set and collect a nonrefundable variance application fee as provided in ORS 454.662. A fee collected by a county under this subsection shall not exceed the county's cost of performing the variance duties of the department. (1973 c.835 §219a; 1975 c.167 §9; 1975 c.309 §5; 1979 c.59 §3)

454.735 Designation of local official to receive applications and fees. The Department of Environmental Quality shall designate an appropriate official in each county who shall be authorized to receive applications and fees required by ORS 454.605 to 454.745. Such receipt shall be considered the official receipt of the application by the department. (1973 c.835 §219b)

454.745 Permit, service and license fees; maximum fees; refund. (1) Fees, not exceeding the following amounts, are established for services rendered and for permits and licenses issued under ORS 454.655 and 454.695 in accordance with the following schedule:

	Maximum Fee
Subsurface or Alternative Sewage Disposal System	
New Site Evaluation; first lot	\$120
Each additional lot evaluated while on site	\$100
Construction Installation Permit (with favorable evaluation report)	\$40
Alteration Permit	\$25
Repair Permit	\$25
Extension Permit	\$25
Sewage Disposal Service	
Business License	\$100
Pumper Truck Inspection	\$25
Evaluation of Existing	

System Adequacy \$40
 Annual Evaluation of Alternative System (where required) \$40
 Annual Evaluation of Temporary Manufactured Dwelling \$25

(2) No fee shall be charged for an evaluation report requested on any proposed repair, alteration or extension of an existing subsurface sewage disposal system, alternative sewage disposal system or part thereof.

(3) Notwithstanding any other provision of this section, no contract provided for under ORS 454.725 shall be entered into or continued when the total amount of fees collected by the local unit of government exceeds the total cost of the program for providing the services rendered and permits and licenses issued under this section.

(4) Notwithstanding the maximum fees established in subsection (1) of this section, the Environmental Quality Commission, upon request of the director or of any county which pursuant to ORS 454.725 has entered into an agreement with the Department of Environmental Quality, may by rule increase maximum fees effective July 1, 1980, above the maximum levels established in subsection (1) of this section. Fee increases permitted by the commission shall be based upon actual costs for efficiently conducted minimum services as developed by the director or contract county. In addition to the fees listed in subsection (1) of this section, with approval of the Environmental Quality Commission, any agreement county may adopt fee schedules for services related to this program which are not specifically listed in subsection (1) of this section.

(5) Notwithstanding the requirements of ORS 454.655 (3), the department or its contract agent may refund a fee accompanying an application for a permit pursuant to ORS 454.655 or for a report pursuant to ORS 454.755 if the applicant withdraws the application before the department or its contract agent has done any field work or other substantial review of the application. [1973 c.335 §220; 1974 s.s. c.30 §3; 1975 c.167 §10; 1975 c.607 §33; 1979 c.591 §2]

~~454.755 Fees for certain reports on sewage disposal. (1) Any person, upon application for any of the following actions by the Department of Environmental Quality, shall pay to the department a nonrefundable fee in the amount required for each lot or parcel:~~

~~(a) A report of evaluation of site suitability for a subsurface sewage disposal system, alternative sewage disposal system or a part thereof, pursuant to ORS 454.655; or~~

~~(b) A report of evaluation of adequacy of sewage disposal method required prior to~~

~~the approval of a plat of a subdivision, pursuant to ORS 92.090 (5)(c).~~

~~(2) Any person may request an evaluation report on any proposed repair, alteration or extension of an existing subsurface sewage disposal system, alternative sewage disposal system or part thereof, including but not limited to any repair, alteration or extension described in ORS 454.675. The department shall conduct such evaluation and issue a report of its findings without charge to the person requesting such evaluation.~~

~~(3) The fee paid for a report of evaluation of site suitability pursuant to paragraph (a) of subsection (1) of this section shall entitle the applicant to as many site inspections as is necessary within 90 days from the date of the first site inspection to determine site suitability for a single home site. The department may require separate fees if it determines that the site inspections are for the purpose of determining site suitability for more than one home site. [1974 s.s. c.30 §2; 1974 s.s. c.74 §4; 1975 c.167 §11; 1975 c.607 §34]~~

ONSITE DISPOSAL ALTERNATIVES

~~454.775 Policy. It is the public policy of the State of Oregon to encourage development and application of alternatives to the septic tank and drainfield system for onsite disposal of sewage consistent with protection of the public health and safety and waters of the state. [1979 c.189 §1]~~

~~454.780 Recirculating sand filter permitted; commission rules. Notwithstanding ORS 454.615, the Environmental Quality Commission shall adopt rules permitting the installation of the recirculating sand filter, or variations thereof, as a standard alternative to the septic tank and drainfield, not later than January 1, 1980. Such rules shall provide standards for construction, installation, maintenance and periodic inspection of such systems, consistent with the public health and safety and protection of the waters of the state. [1979 c.189 §2]~~

~~454.785 [1974 s.s. c.30 §4; repealed by 1975 c.309 §6]~~

REQUIRED CONNECTIONS

~~454.805 Assessment for installation costs. (1) When a municipality requires property owners to connect their homes and multifamily dwellings to the sewer system of the municipality, the municipality may assess the installation costs for which the municipality provides financing against the affected properties in the same manner that costs of local improvements are assessed against benefited properties. Such assessments shall have the same lien status and be foreclosable in the same manner as other assessments levied under ORS chapter 223 or the charter.~~

Estimated DEQ Fee Revenue For FY 92, Under Existing Fee Schedule

	APPLICATIONS	REVENUE
SITE EVALUATIONS		
1st Lot.....	660.....	\$ 105,600
Additional Lots.....	108.....	\$ 14,040
Commercial.....	7.....	\$ 1,120
CONSTRUCTION PERMITS		
Standard System.....	504.....	\$ 65,955
Capping Fill System.....	14.....	\$ 3,850
Holding Tank System.....	8.....	\$ 1,280
Pres. Dist. System.....	30.....	\$ 4,800
Sand Filter System.....	46.....	\$ 13,570
Other Alt. Systems.....	6.....	\$ 960
Alteration Permit.....	24.....	\$ 3,360
REPAIR PERMIT		
Single Family.....	311.....	\$ 17,105
Commercial.....	11.....	\$ 1,760
RENEWAL PERMIT		
Field Visit.....	8.....	\$ 800
No Field Visit.....	26.....	\$ 1,430
AUTHORIZATION NOTICE		
Field Visit.....	352.....	\$ 35,200
No Field Visit.....	38.....	\$ 2,090
PLAN REVIEW.....	7.....	\$ 420
EXISTING SYSTEM EVALUATION.....	28.....	\$ 2,800
DENIAL REVIEW.....	3.....	\$ 300
PUMPER TRUCK INSPECTION.....	32.....	\$ 960
ANNUAL INSPECTIONS.....	21.....	\$ 2,100
VARIANCE APPLICATIONS.....	40.....	\$ 9,000
S.D.S. LICENSES.....	900.....	\$ 139,000
SURCHARGES.....		\$ 138,515
<hr/>		
TOTAL.....		\$ 566,015
Projected Fee Revenue for the 91-93 Biennium....		\$ 1,132,030

ATTACHMENT G

Estimated DEQ Fee Revenue For FY 92, Under Proposed Fee Schedule

	APPLICATIONS	REVENUE
SITE EVALUATIONS		
1st Lot.....	660.....	\$ 161,700
Additional Lots.....	108.....	\$ 22,140
Commercial.....	7.....	\$ 1,715
CONSTRUCTION PERMITS		
Standard System.....	504.....	\$ 123,480
Capping Fill System.....	14.....	\$ 5,810
Holding Tank System.....	8.....	\$ 1,960
Pres. Dist. System.....	30.....	\$ 8,100
Sand Filter System.....	46.....	\$ 20,470
Other Alt. Systems.....	6.....	\$ 1,470
Alteration Permit.....	24.....	\$ 5,880
REPAIR PERMIT		
Single Family.....	311.....	\$ 27,990
Commercial.....	11.....	\$ 2,695
RENEWAL PERMIT		
Field Visit.....	8.....	\$ 1,200
No Field Visit.....	26.....	\$ 2,210
AUTHORIZATION NOTICE		
Field Visit.....	352.....	\$ 52,800
No Field Visit.....	38.....	\$ 3,230
PLAN REVIEW.....	7.....	\$ 700
EXISTING SYSTEM EVALUATION.....	28.....	\$ 4,200
DENIAL REVIEW.....	3.....	\$ 600
PUMPER TRUCK INSPECTION.....	32.....	\$ 1,440
ANNUAL INSPECTIONS.....	21.....	\$ 3,150
VARIANCE APPLICATIONS.....	40.....	\$ 9,000
S.D.S. LICENSES.....	900.....	\$ 157,500
SURCHARGES.....		\$ 239,025
<hr/>		
TOTAL.....		\$ 858,465
Projected Fee revenue for the 91-93 Biennium.....		\$ 1,716,930

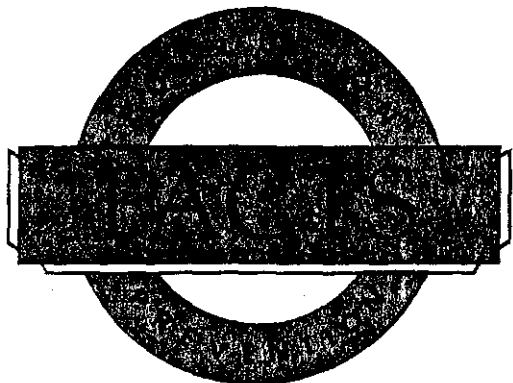
ATTACHMENT H

BRIEF DESCRIPTION OF PROGRAM OBJECTIVES AND RESPONSIBILITIES

The Department of Environmental Quality is responsible for developing and implementing the state-wide on-site sewage treatment and disposal program. The program is guided by administrative rules previously adopted by the Commission pursuant to their authority under ORS 454.625. The objectives of the program are to assure that sewage disposal sites are suitable for that purpose, and that sewage systems are properly designed, constructed, operated and maintained, consistent with protection of the public health, safety, and waters of the state.

Oregon Revised Statute 454.725 provides that the Department may enter into agreements with local units of government to perform specific duties on behalf of the Department, and fees may be collected for performing these duties. Under the terms of this statute, 23 counties have executed memorandums of agreement with the Department to assume responsibility for conducting the on-site program in those counties. The day-to-day activities performed by the agreement counties on a fee for service basis include: responding to applications for site evaluations; issuing construction permits, alteration permits, and repair permits; responding to requests for changes in system use; conducting pre-cover inspections of installed systems, issuing certificates of satisfactory completion for completed installations; conducting existing system evaluations; inspecting septic tank pumping vehicles and equipment; and performing annual inspections of certain types of systems. Activities conducted without an associated fee include: enforcement of rule violations; technical assistance to the public and Department; sanitary surveys to determine environmental and public health risks; response to complaint investigations; and system installer workshops. Agreement counties may, pursuant to ORS 454.745, adopt fee schedules for services performed, up to the schedule of maximum fees established by rule of the Commission. An agreement county may not, however, collect more in fees than the total cost of providing the services.

Department staff perform these same duties in the remaining 13 counties. The Department also conducts denial reviews, responds to variance requests, reviews system construction plans, evaluates large system proposals, and annually licenses sewage disposal service businesses on a fee for service basis. There are several duties the Department performs that do not have an associated fee for service. These include: program administration, planning and development; audits of the services provided in each county; rule development; technical assistance and training for field staff; and the enforcement of violations of Commission rules.



Oregon's Toxics Use Reduction and Hazardous Waste Reduction Act

**Hazardous
Waste
Reduction
Program**
of Oregon



PLAN DEVELOPMENT SESSIONS

DATE	LOCATION	TIME
April 8, 1991	PGE Meeting Room, SW Old Scholls Ferry Road Beaverton, Oregon (map attached)	1:00 PM-4:00 PM
April 9, 1991	Environmental Learning Center, Clackamas Community College Clackamas, Oregon (map attached)	1:00 PM-4:00 PM
April 24, 1991	Central Oregon Community College, Hitchcock Center Bend, Oregon (map attached)	1:00 PM-4:00 PM
April 25, 1991	Little Vert Theatre SW 4th and Dorion Pendleton, Oregon	1:00 PM-4:00 PM
May 2, 1991	Jackson County Courthouse Auditorium 10 South Oakdale Medford, Oregon	1:00 PM-4:00 PM
May 3, 1991	Lane Community College Off I5 at 30th Street Exit Eugene, Oregon (map attached)	1:00 PM-4:00 PM

Contact DEQ for information at (503) 229-5913

ADDENDUM TO REQUEST FOR EQC ACTION

ENVIRONMENTAL
QUALITY
COMMISSION

Meeting Date: March 11, 1991
Agenda Item: D
Division: Water Quality
Section: Industrial & On-Site

The Department would like to include a proposed technical rule amendment with the request for authorization to begin rulemaking on the proposed on-site sewage program fee schedule. The issue to be resolved concerns a limitation in a rule that restricts the personal hardship placement and occupancy of mobile homes to family members suffering physical or mental impairment. We believe it is reasonable to expect that the care provider assisting the person suffering hardship may need to reside in the mobile home, and/or that the care provider may not be a family member. The proposed rule amendment is printed on the reverse side of this addendum.

The Department would like this included in the request for hearing authorization now because otherwise it may be a year before technical rule amendments are proposed for rulemaking.

Revisions have been made to the following attachments to include the proposed technical amendment:

- Attachment A ----- Proposed Rules
- Attachment B ----- Rulemaking Statements
- Attachment C ----- Fiscal and Economic Impact Statement
- Attachment D ----- Public Notice

Approved:

Section: *Charles A. ...*
Division: *Hydrea Taylor*
Director: *Hydrea Taylor*

Addendum Prepared By: Sherman O. Olson, Jr.

Phone: 229-6443

Date Prepared: March 7, 1991

IW\WC7950



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



**OREGON ADMINISTRATIVE RULES
340-71-140**

NOTE:

The underlined portions of text represent proposed additions made to the rules.

The {bracketed} portions of text represent proposed deletions made to the rules.

340-71-140 FEES -- GENERAL.

- (1) Except as provided in section (5) of this rule, the following nonrefundable fees are required to accompany applications for site evaluations, permits, licenses and services provided by the Department.

ON-SITE SEWAGE DISPOSAL SYSTEMS	MAXIMUM FEE
(a) New Site Evaluation:	
(A) Single Family Dwelling:	
(i) First Lot.....	{ \$160 } <u>\$245</u>
(ii) Each Additional Lot Evaluated During Initial Visit	{ \$130 } <u>\$205</u>
(B) Commercial Facility System:	
(i) For First One Thousand (1000) Gallons Projected Daily Sewage Flow	{ \$160 } <u>\$245</u>
(ii) Plus For Each Five Hundred (500) Gallons or Part Thereof Above One Thousand (1000) Gallons, for Projected Daily Sewage Flows up to Five Thousand (5,000) Gallons.....	{ \$-50 } <u>\$ 75</u>
(C) Site Evaluation Report Review	{ \$100 } <u>\$200</u>
(D) Fees for site evaluation applications made to an agreement county shall be in accordance with that county's fee schedule.	
(E) Each fee paid for a site evaluation report entitles the applicant to as many site inspections on a single	

parcel or lot as are necessary to determine site suitability for a single system. The applicant may request additional site inspections within ninety (90) days of the initial site evaluation, at no extra cost.

(F) Separate fees shall be required if site inspections are to determine site suitability for more than one (1) system on a single parcel of land.

(b) Construction-Installation Permit:

(A) For First One Thousand (1000) Gallons Projected Daily Sewage Flow:

(i) Standard On-Site System [~~\$160~~] \$245

(ii) Alternative System:

- (I) Aerobic System [~~\$160~~] \$245
- (II) Capping Fill [~~\$275~~] \$415
- (III) Cesspool [~~\$160~~] \$245
- (IV) Disposal Trenches in Sapro-lite [~~\$160~~] \$245
- (V) Evapotranspiration-Absorption. [~~\$160~~] \$245
- (VI) Gray Water Waste Disposal Sump [~~\$-80~~] \$120
- (VII) Holding Tank [~~\$160~~] \$245
- (VIII) Pressure Distribution [~~\$160~~] \$270
- (IX) Redundant [~~\$160~~] \$245
- (X) Sand Filter [~~\$295~~] \$445
- (XI) Seepage Pit [~~\$160~~] \$245
- (XII) Seepage Trench [~~\$160~~] \$245
- (XIII) Steep Slope [~~\$160~~] \$245
- (XIV) Tile Dewatering [~~\$160~~] \$245

~~[(iii) The permit fee required for standard, cesspool, disposal trenches in sapro-lite, seepage pit, steep slope and seepage trench systems may be reduced to one hundred five dollars (\$105) providing the permit application is submitted to the Agent within six (6) months of the site evaluation report date, the system will serve a single family dwelling, and a site visit is not required before issuance of the permit.]~~

(iii) At the discretion of the Agent, the permittee may be assessed a reinspection fee, not to exceed \$25, when a precover inspection correction notice requires correction of improper construction and, at a subsequent inspection, the Agent finds system construction deficiencies have not

been corrected. The Agent may elect not to make further precover inspections until the reinspection fee is paid.

(iv) With the exceptions of sand filter and pressure distribution systems, a \$25 fee may be added to all permits that specify the use of a pump or dosing siphon.

- (B) For systems with projected daily sewage flows greater than one thousand (1,000) gallons, the Construction-Installation permit fee shall be equal to the fee required in OAR 340-71-140 (1)(b)(A) plus [~~\$10~~] \$15 for each five hundred (500) gallons or part thereof above one thousand (1,000) gallons.

NOTE: Fees for construction permits for systems with projected daily sewage flows greater than five thousand (5,000) gallons shall be in accordance with the fee schedule for WPCF permits.

(C) Commercial Facility System, Plan Review:

- (i) For a system with a projected daily sewage flow of less than six hundred (600) gallons, the cost of plan review is included in the permit application fee.
- (ii) For a system with a projected daily sewage flow of six hundred (600) gallons, but not more than one thousand (1,000) gallons projected daily sewage flow [~~\$-60~~] \$100
- (iii) Plus for each five hundred (500) gallons or part thereof above one thousand (1,000) gallons, to a maximum sewage flow limit of five thousand (5,000) gallons per day [~~\$-15~~] \$ 25
- (iv) Plan review for systems with projected sewage flows greater than five thousand (5,000) gallons per day shall be pursuant to OAR 340, Division 52.

(D) Permit Renewal:

- (i) If Field Visit Required [~~\$100~~] \$150
- (ii) No Field Visit Required..... [~~\$-55~~] \$ 85

NOTE: Renewal of a permit may be granted to the original permittee if an application for permit renewal is filed prior to the original permit expiration date. Refer to OAR 340-71-160(10).

- (E) Alteration Permit [~~\$140~~] \$245
 - (F) Repair Permit:
 - (i) Single Family Dwelling:
 - (I) Major [~~\$-75~~] \$115
 - (II) Minor [~~\$-50~~] \$ 75
 - (ii) Commercial Facility: {--}
 - (I) Major -- The appropriate fees identified in paragraphs (1)(b)(A), {and} (B), and (C) of this rule appl{ies}y.
 - (II) Minor \$ 75
 - (G) Permit Denial Review [~~\$100~~] \$200
 - (c) Authorization Notice:
 - (A) If Field Visit Required [~~\$100~~] \$150
 - (B) No Field Visit Required [~~\$-55~~] \$ 85
 - (C) Authorization Notice Denial Review [~~\$100~~] \$200
 - (d) Annual Evaluation of Alternative System (Where Required) [~~\$100~~] \$150
 - (e) Annual Evaluation of Large System (2501 to 5000 GPD) [~~\$100~~] \$150
 - (f) Annual Evaluation of Temporary or Hardship Mobile Home..... [~~\$-60~~] \$ 90
 - (g) Variance to On-Site System Rules \$225
- NOTE:** The variance application fee may be waived if the applicant meets the requirements of OAR 340-71-415(5).
- (h) Rural Area Variance to Standard Subsurface Rules:
 - (A) Site Evaluation [~~\$160~~] \$245

NOTE: In the event there is on file a site evaluation report for that parcel that is less than ninety (90) days old, the site evaluation fee shall be waived.

(B) Construction-Installation Permit -- The appropriate fee identified in subsection (1)(b) of this rule applies.

(i) Sewage Disposal Service:

(A) Annual Business License [~~\$150~~] \$ 175

~~[EXCEPTION: --The application fee for a license valid during the period July 1, 1983 through June 30, 1984 shall be \$100.]~~

(B) Transfer of or Amendments to License [~~\$-75~~] \$ 100

(C) Reinstatement of Suspended License [~~\$100~~] \$ 125

(D) Pumper Truck Inspection, First Vehicle:

(i) Each Inspection..... [~~\$-35~~] \$ 50

(ii) Each Additional Vehicle, Each Inspection..... [~~\$-25~~] \$ 35

(j) Experimental Systems: Permit..... [~~\$100~~] \$ 1,000

(k) Existing System Evaluation Report [~~\$100~~] \$ 150

NOTE: The fee shall not be charged for an evaluation report on any proposed repair, alteration or extension of an existing system.

(2) Contract County Fee Schedules. Pursuant to ORS 454.745(4), fee schedules which exceed maximum fees in ORS 454.745(1), and section (1) of this rule, are established for contract counties as follows:

(a) Multnomah County: See OAR 340-72-070.

(b) Jackson County: See OAR 340-72-080.

(c) Linn County: See OAR 340-72-090.

(3) Contract County Fee Schedules, General:

(a) Each county having an agreement with the Department under ORS 454.725 shall adopt a fee schedule for services rendered and permits ~~[and licenses]~~ to be issued.

- (b) A copy of the fee schedule and any subsequent amendments to the schedule shall be forwarded to the Department.
- (c) Fees shall not:
 - (A) Exceed actual costs for efficiently conducted services; or
 - (B) Exceed the maximum established in section (1) of this rule, unless approved by the Commission pursuant to ORS 454.745(4).
- (4) Surcharge. In order to offset a portion of the administrative costs of the statewide on-site sewage disposal program, a surcharge for each activity, as set forth in the following schedule, shall be levied by the Department and by each Agreement County. Proceeds from surcharges collected by the Department and Agreement Counties shall be accounted for separately. Each Agreement County shall forward the proceeds to the Department as negotiated in the memorandum of agreement (contract) between the county and the Department.

Activity	Surcharge
(a) Site evaluation, for each site examined; based on a projected flow of:	
A. 1,000 gallons or less	[\$-15] \$ 20
B. 1,001 gallons to 2,000 gallons	[\$-30] \$ 40
C. 2,001 gallons to 3,000 gallons	[\$-45] \$ 60
D. 3,001 gallons to 4,000 gallons	[\$-60] \$ 80
E. 4,001 gallons or more	[\$-75] \$100
(b) Construction-Installation Permit	[\$--5] \$ 10
(c) Repair Permit	[\$--5] \$ 10
(d) Alteration Permit	[\$--5] \$ 10
(e) Authorization Notice	[\$--5] \$ 10
<u>(f) Existing System Evaluation Report.....</u>	<u>\$ 10</u>

- (5) Refunds. The Agent may refund a fee accompanying an application if the applicant withdraws the application before the Agent has done any field work or other substantial review of the application.

Amend OAR 340-71-205(8) as follows:

340-71-205 AUTHORIZATION TO USE EXISTING SYSTEMS.

- (1) For the purpose of these rules, "Authorization Notice" means a written document issued by the Agent which establishes that an existing on-site sewage disposal system appears adequate to serve the purpose for which a particular application is made. Applications for Authorization Notices shall conform to requirements of OAR 340-71-160(2) and (4).
- (2) Authorization Notice Required. No Person shall place into service, change the use of, or increase the projected daily sewage flow into an existing on-site sewage disposal system without obtaining an Authorization Notice, Construction-Installation Permit or Alteration Permit as appropriate.

EXCEPTIONS:

- a- An Authorization Notice is not required when there is a change in use (replacement of mobile homes or recreational vehicles with similar units) in mobile home parks or recreational vehicle facilities.
 - b- An Authorization Notice is not required for placing into service a previously unused system for which a Certificate of Satisfactory Completion has been issued within one (1) year of the date such system is placed into service, providing the projected daily sewage flow does not exceed the design flow.
- (3) For placing into service or for changes in the use of an existing on-site sewage disposal system where no increase in sewage flow is projected, or where the design flow is not exceeded; an Authorization Notice valid for a period not to exceed one (1) year shall be issued if:
 - (a) The existing system is not failing; and
 - (b) All set-backs between the existing system and the structure can be maintained; and
 - (c) In the opinion of the Agent the proposed use would not create a public health hazard on the ground surface or in surface public waters.
 - (4) If the conditions of section (3) of this rule cannot be met, an Authorization Notice shall be withheld until such time as the necessary alterations and/or repairs to the system are made.
 - (5) For changes in the use of a system where projected daily sewage flow would be increased by not more than three hundred (300)

gallons beyond the design capacity or by not more than fifty (50) percent of the design capacity for the system, whichever is less; an Authorization Notice valid for a period not to exceed one (1) year shall be issued if:

- (a) The existing system is shown not to be failing; and
 - (b) All set-backs between the existing system and the structure can be maintained; and
 - (c) Sufficient area exists so that a complete replacement area meeting all requirements of these rules (except those portions relating to soil conditions and groundwater) is available; and
 - (d) In the opinion of the Agent the proposed increase would not create a public health hazard or water pollution.
- (6) Only one (1) Authorization Notice for an increase up to three hundred (300) gallons beyond the design capacity, or increased by not more than fifty (50) percent of the design capacity, whichever is less, will be allowed per system.
- (7) For changes in the use of a system where projected daily sewage flows would be increased by more than three hundred (300) gallons beyond the design capacity, or increased by more than fifty (50) percent of the design capacity of the system, whichever is less, a Construction-Installation Permit shall be obtained. Refer to rule 340-71-210.
- (8) Personal Hardship:
- (a) The Agent may allow a mobile home to use an existing system serving another dwelling, in order to provide housing for a a person ~~{family-member}~~ suffering hardship or for an individual providing care for such a person, by issuing an Authorization Notice, if:
 - (A) The Agent receives satisfactory evidence which indicates that a person ~~{the-family-member}~~ is suffering physical or mental impairment, infirmity, or is otherwise disabled (a hardship approval issued under local planning ordinances shall be accepted as satisfactory evidence); and
 - (B) The system is not failing; and
 - (C) The application is for a mobile home; and
 - (D) Evidence is provided that a hardship mobile home placement is allowed on the subject property by the governmental agency that regulates zoning, land use planning, and/or building.

(b) The Authorization Notice shall remain in effect for a specified period, not to exceed cessation of the hardship. The Authorization Notice is renewable on an annual or biennial basis. The Agent shall impose conditions in the Authorization Notice which are necessary to assure protection of public health.

(9) Temporary Placement:

(a) The Agent may allow a mobile home to use an existing system serving another dwelling in order to provide temporary housing for a family member in need, and may issue an Authorization Notice provided:

(A) The Agent receives evidence that the family member is in need of temporary housing; and

(B) The system is not failing; and

(C) A full system replacement area is available; and

(D) Evidence is provided that a temporary mobile home placement is allowed on the subject property by the governmental agency that regulates zoning, land use planning, and/or building.

(b) The Authorization Notice shall authorize use for no more than two (2) years and is not renewable. The Agent shall impose conditions in the Authorization Notice necessary to assure protection of public health. If the system fails during the temporary placement and additional replacement area is no longer available, the mobile home shall be removed from the property.

(10) An Authorization Notice denied by the Agent shall be reviewed at the request of the applicant. The application for review shall be submitted to the Department in writing within thirty (30) days of the authorization notice denial, and be accompanied by the denial review fee. The denial review shall be conducted and a report prepared by the Department.

STATEMENT OF NEED FOR RULE MAKING

Pursuant to ORS 183.335(2), this statement provides information on the Environmental Quality Commission's intended action to adopt a rule.

(1) Legal Authority:

ORS 454.745(4) provides that the Commission, at the request of the Director or any Contract Agent, may by rule increase fees above the maximum levels established in Subsection (1) of ORS 454.745. Fee increases permitted by the Commission shall be based upon actual costs for efficiently conducted minimum services as developed by the Director or Contract Agent.

ORS 454.625, which authorizes the Environmental Quality Commission to adopt rules pertaining to on-site sewage disposal.

(2) Need for the Rule:

The Governor's recommended budget for the on-site sewage disposal program projects that slightly more than \$1.7 million in fee revenues must be generated to fund the fee supported portion of the program. Based on estimated program activities during the 91-93 biennium, fee revenues using the current schedule of maximum fees are expected to provide about \$1.1 million. To raise the estimated \$0.6 million additional in fees necessary to fund the program, the rule establishing the fee schedule must be amended.

The Department believes the personal hardship mobile home placement allowed through the issuance of an Authorization Notice is too restrictive because it limits occupancy of the mobile home to a family member suffering physical or mental impairment, infirmity or other disability. It is reasonable to expect that the care provider assisting the person suffering hardship may need to reside in the mobile home, and/or that the care provider may not be a family member. The proposed rule amendment would eliminate these restrictions.

(3) Principle Documents Relied Upon in This Rulemaking:

- (a) Oregon Revised Statute 454.745(4).
- (b) Oregon Administrative Rule 340-71-140.

- (c) Proposed rule establishing maximum fees the Department may charge for specific on-site activities.
- (d) Letter from Richard L. Polson dated December 21, 1990.
- (e) EQC Staff Report, Agenda Item I, March 11, 1988, EQC Meeting
- (f) Portion of 1991-93 Governor's Recommended Budget Concerning Subsurface Sewage Disposal Fee Revenue.
- (g) Monthly On-Site Activity Reports From the Department's Regional and Branch Offices.
- (h) Summary of OSS Field Services & Fiscal Office Revenue for FY '89, FY '90, and FY '91.
- (i) Letter from Larry L. Campbell, Oregon House of Representatives, dated August 31, 1990.

LAND USE COMPATIBILITY STATEMENT

The proposed rule establishing maximum fees for on-site services provided by the Department does not affect land use as defined in the Department's coordination program approved by the Land Conservation and Development Commission.

The Department has concluded that the proposed rule amendment concerning personal hardship mobile home placements conforms with Statewide Planning Goals. The applicant for a Hardship Authorization Notice is required by rule to provide a favorable Land Use Compatibility Statement from the affected jurisdiction to demonstrate compatibility with the local comprehensive plan.

Public comment on any land issue involved is welcome and may be submitted in the same manner as indicated for testimony in the hearing notice. It is requested that local, state and federal agencies review the proposed amendments and comment on possible conflicts with their programs affecting land use and with statewide Planning Goals and within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any appropriate conflicts brought to their attention by local, state, or federal authorities.

FISCAL AND ECONOMIC IMPACT

The proposed fee maximums for on-site services will result in higher fees to most applicants. Although the increases range from 17% to 1000%, most of the fees will increase by approximately 50% above the fee maximums established by the Environmental Quality Commission on May 11, 1988. The fee for a repair permit to correct a minor sewage disposal system problem (for a system serving other than a single family dwelling) is being reduced.

Impact To The General Public. Individuals will see a direct increase in the fees they pay for on-site services. In counties the Department provides field services, the cost of a site evaluation report and a standard system construction-installation permit will both rise by \$90. Fees for other types of services the public may submit applications for will be increased by amounts ranging from \$30 (minor system repair permit) to \$900 (experimental system permit). Also, permit holders that do not correct construction deficiencies found during pre-cover inspections that causes additional site visits by staff may be billed \$25 to defray the revisit costs incurred by the Department. Systems using effluent pumps or siphons, other than sand filter or pressurized systems, may have an additional \$25 added to the normal permit fee. In counties where the Department has delegated program implementation to local units of government, the direct cost increase for each application will be \$5. However, because each delegated office may increase the fees they charge to the maximum limit established for the Department, applicants in those counties may be indirectly impacted by the Department's new fee schedule.

The proposed amendment to the rule addressing personal hardship mobile home placements may provide an economic savings to those members of the public that previously were unable to qualify with the conditions imposed by the rule. Because the care provider and the person suffering physical or mental impairment could reside on the same property in separate dwellings, the overall costs for care may be less.

Impact On Small Business. The fee changes may affect small businesses both directly and indirectly. Those that submit applications for on-site activities to the Department will be subjected to the same costs as the public. Sewage disposal service companies will need to pay higher fees for the annual licenses they must obtain from the Department. The increase

will be \$25 for each license, and \$10 to \$15 for each pumping vehicle. These companies may be indirectly affected if the \$25 revisit fee is passed down to them because of uncorrected construction deficiencies. Some businesses may have bid for construction projects without considering higher application fees, and may have to pay the difference without compensation. The new fee schedule reduces the permit cost to repair a sewage disposal system for some businesses, if the repair is considered to be minor.

The proposed rule amendment addressing personal hardship mobile home placements may provide a limited number of jobs for businesses that provide services associated with moving mobile homes and setting them up for occupancy. Some care-giving facilities, such as but not limited to nursing homes and institutions, may lose some patients and, therefore, experience a slight decline in revenue.

Impacts On Large Businesses. The proposed amendments will affect large businesses to the same extent as the public and small businesses.

Impact On Local Governments. The fee changes will affect local governments to the same extent as the public and small businesses. However, those local governments having an intergovernmental agreement with the Department, to implement portions of the on-site program within specific counties, will collect from applicants the increased surcharge applicable to each application they receive, and remit the collected surcharges to the Department consistent with the agreement. This should have no appreciable affect on these offices because they have been collecting the application surcharge for the Department since 1981. An indirect impact is that each agreement office will have the ability to adjust its on-site fee schedule, provided the adjustments are not contrary to the intergovernmental agreement with the Department. The proposed amendment concerning personal hardship mobile home placements may result in a slight increase in the number of applications to be reviewed and processed by local governments. Costs associated with this activity are expected to be offset by a fee for service.

Impact On State Agencies. The new fee schedule will generate additional revenues the Department of Environmental Quality will use to offset expenses incurred by the Department in its administration and implementation of the on-site sewage treatment and disposal program. The majority of the new revenues will provide funding for additional staff positions that are necessary to accomplish the program objectives. The Department may see a slight increase in applications due to the proposed amendment concerning personal hardship mobile

home placements, with costs to the Department offset by a fee for service. Other state agencies will be affected by the fee amendments to the same extent as large and small businesses and the public. Most agencies are not expected to be impacted by the proposed revision to the personal hardship mobile home placement rule. However, there may be a slight increase in workload with agencies that are involved directly or indirectly with activities associated with mobile home placements.

A CHANCE TO COMMENT ON...

PROPOSED INCREASE IN THE ON-SITE SEWAGE DISPOSAL PROGRAM APPLICATION FEES

Notice Issued: March 11, 1991
Comments Due: April 19, 1991

**WHO IS
AFFECTED:**

Persons submitting applications for on-site sewage disposal activities and sewage disposal service licenses.

**WHAT IS
PROPOSED**

All on-site sewage disposal program fees, including surcharges, are being increased, with two exceptions. This will provide the revenue necessary to fund the fee-supported portion of the program. The 1991-93 Governor's recommended budget estimates that about \$1.7 million in fee revenues must be generated to provide for this fund base. Also, additional fees are proposed for systems requiring pumps or siphons, and when uncorrected construction deficiencies cause additional system pre-cover inspection visits by staff. A surcharge is proposed for existing system evaluation report applications. The Department proposes to eliminate the "family member" restriction concerning personal hardship mobile home placements allowed by Authorization Notice issuance.

**WHAT ARE
THE
HIGHLIGHTS:**

Many fees are being increased by approximately 50%. Some fees are proposed to be increased by more than 50% to more accurately reflect overall costs to the Department in providing the service. The surcharge increment on each application is proposed to be increased by \$5.

**HOW TO
COMMENT:**

Public hearings are scheduled at the following locations on the dates and times indicated:

PENDLETON

State Office Building
3rd Floor Conference Room
700 S.E. Emigrant
Pendleton, Oregon
April 16, 1991, at 10 am

BEND

Cascade Natural Gas Bldg.
Conference Room
334 N.E. Hawthorne
Bend, Oregon
April 17, 1991, at 10 am



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.

ROSEBURG

State Office Building
Conference Room B
1937 W. Harvard Blvd.
Roseburg, Oregon
April 18, 1991, at 10 am

PORTLAND

Executive Building
Conference Room 3-A
811 S.W. Sixth Avenue
Portland, Oregon
April 19, 1991, at 10 am

A Department of Environmental Quality staff member will be appointed to preside over and conduct each of the hearings. Written comments should be sent to DEQ, Water Quality Division, Industrial and On-Site Waste Water Section, 811 S.W. Sixth Avenue, Portland, Oregon 97204, but must be received by 5 p.m. on April 19, 1991.

All requests for information or copies of the proposed amendments should be directed to Mr. Sherman Olson, Industrial and On-Site Waste Water Section, 229-6443 or toll free, 1-800-452-4011.

WHAT IS THE
NEXT STEP:

After reviewing all the public testimony and making appropriate changes, the fee schedule will be presented to the Environmental Quality Commission for adoption at their regular meeting in June, contingent upon legislative approval of the Governor's recommended budget for the on-site program.

REQUEST FOR EQC ACTION

Meeting Date: 3/11/91
Agenda Item: E
Division: HSW
Section: HWTA

SUBJECT:

Proposed Adoption of Rule Amendments to the Hazardous Waste and Polychlorinated Biphenyl (PCB) Rules

PURPOSE:

Adoption of certain federal hazardous waste corrections, regulations and amendments promulgated under the Resource Conservation and Recovery Act (RCRA), the Hazardous and Solid Waste Amendments of 1984 (HSWA), and the Toxic Substance Control Act (TSCA).

This is the latest in a series of rulemakings to adopt by reference federal regulations in order for the Department of Environmental Quality (Department, DEQ) to retain authorization from the Environmental Protection Agency (EPA) to implement the base RCRA program and HSWA regulations in lieu of EPA. Previous rulemakings occurred on May 29, 1987, December 11, 1987, July 8, 1988, and June 2, 1989.

New federal regulations governing the management of polychlorinated biphenyls (PCBs) are being proposed for adoption to update the Department's PCB regulations and to maintain equivalency with the federal program.



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



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On January 17, 1991, a public hearing was held on the proposed adoption of these hazardous waste and PCB management rules. Eight people attended the hearing, in addition to Department staff. No one wished to testify, and no written testimony was received. A Hearing Officer's report is attached (Attachment D)

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Potential Strategy, Policy, or Rules
 - Agenda Item ___ for Current Meeting
 - Other: (specify)

- Adopt Rules
 - Proposed Rules (Final Recommendation) Attachment A
 - Rulemaking Statements Attachment B
 - Fiscal and Economic Impact Statement Attachment B
 - Public Notice Attachment C

- Issue a Contested Case Order
- Approve a Stipulated Order
- Enter an Order
 - Proposed Order Attachment ___

- Approve Department Recommendation
 - Variance Request Attachment ___
 - Exception to Rule Attachment ___
 - Informational Report Attachment ___
 - Other: (specify) Attachment ___

DESCRIPTION OF REQUESTED ACTION:

Proposed adoption by reference of federal hazardous waste and PCB regulations (Chapter 340, Division 110), and corrections and amendments to the Department's hazardous waste regulations, Chapter 340, Divisions 100, 101, 102, 104, 105 and 106. The federal amendments and rules proposed for adoption and the state regulations proposed to be amended, corrected or deleted are evaluated and summarized in Attachment E.

AUTHORITY/NEED FOR ACTION:

- Required by Statute: _____ Attachment ___
Enactment Date: _____
- Statutory Authority: ORS 466.020 Attachment ___

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- Pursuant to Rule: _____ Attachment _____
 Pursuant to Federal Law/Rule: _____ Attachment _____
 Other: _____ Attachment _____
 Time Constraints: (explain)

States are required to adopt federal regulatory changes in one year "clusters." A rule "cluster" is a set of federal regulations promulgated by the EPA between July 1 of any given year and June 30 of the following year. This rulemaking will ensure that our program is current with the federal program as of July 1, 1990.

DEVELOPMENTAL BACKGROUND:

- Advisory Committee Report/Recommendation Attachment _____
 Hearing Officer's Report/Recommendations Attachment D
 Response to Testimony/Comments Attachment _____
 Prior EQC Agenda Items: (list) Attachment _____
 Other Related Reports/Rules/Statutes: Attachment _____
 Supplemental Background Information Attachment E
 Summary of Rules

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The regulated community affected by these rules are those who generate, treat, store and dispose of hazardous wastes and PCBs.

The federal HSWA rules proposed for adoption are currently in effect in Oregon and are being implemented by the EPA. Therefore, no additional requirements on the regulated community are being added by the state. The most significant HSWA regulations being proposed for adoption are the second-third and third-third land disposal restrictions (OAR 340-100-002(1)) and the toxicity characteristic regulations (OAR 340-100-002(1)) (TC Rule). The Department's temporary TC Rule (OAR 340-101-024) will be deleted and replaced by the adoption (OAR 340-100-002(1)) of the federal TC regulations.

In addition, under the Department's current temporary TC Rule, the State prohibits treatment or disposal facilities from receiving and managing from off-site newly designated TC hazardous waste without a final permit. Under federal interim status requirements, such facilities could operate without a permit. The Department's temporary rule precludes

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such operations until Division 120 siting standards and other pertinent permitting requirements are met. The Department proposes to make this rule permanent for all newly designated hazardous waste (see OAR 340-104-001(6), 340-105-010(2)(a)).

The remaining RCRA rules being proposed for adoption, and the amendments to the state hazardous waste regulations, are housekeeping measures, either corrections or clarifications of existing state regulations. These amendments will not affect the regulated community because the regulations being corrected or clarified are already in effect. For example, state amendments requiring prospective treatment or disposal facilities to receive a final permit before managing newly regulated hazardous wastes received from off-site (OAR 340-104-001(6), 340-105-010(2)(a)) simply clarify that such facilities must meet the state's current hazardous waste siting requirements before such operations may proceed.

The Department is not proposing to adopt recent federal notices which clarify that spent chlorinated fluorocarbons (CFCs) used in the heating and air conditioning industry are non-hazardous waste. The state program is currently more stringent than the federal program, in that the state regulates spent CFCs as hazardous waste under the hazardous waste "ten percent rule" (OAR 340-101-033). (The state's "ten percent rule" classifies certain federal hazardous wastes as state hazardous wastes if found in quantities of ten percent or greater). Although the regulation of CFCs as a hazardous waste in Oregon is more stringent than EPA regulation, the Department does not recommend making any regulatory changes until the issue can be considered more fully by an advisory committee. At that time, the Department intends to evaluate the repercussions of designating spent CFCs as non-hazardous wastes and return to the Environmental Quality Commission (EQC, Commission) with regulatory recommendations.

At a previous meeting, the Commission approved the Department's recommendation to retain more stringent Small Quantity Generator (SQG) exception reporting requirements (SQGs generate more than 220 pounds but less than 2,200 pounds of hazardous waste in one calendar month). The Department's rule requires SQGs to submit a full exception report in writing to the Department if SQGs do not receive confirmation from the treatment, storage or disposal facility of receipt of their hazardous wastes. The Department believes it is necessary to know if SQG wastes have been properly manifested and managed. In today's proposed rulemaking, the Department is adding OAR 340-102-042 and correcting OAR 340-102-044 to clarify the state's existing exception reporting requirements for SQGs.

Finally, the Department proposes to adopt new federal PCB regulations (OAR 340-110-001(3)) which require PCB handlers to ship PCB wastes using hazardous waste manifests and to notify the Department of their PCB activities. In addition, the regulation requires PCB facilities to have closure plans and financial assurance. The Department maintains consistency with the federal PCB management program by adopting these regulations.

PROGRAM CONSIDERATIONS:

Adoption of the second-third and third-third land disposal restrictions and the TC Rule will increase the time it will take to do generator inspections and to document findings. Inspection resources must either increase, or the number of inspections must decrease, in order to accommodate the increase in workload.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Adopt by reference the federal hazardous waste and PCB regulations and amend and correct the state hazardous waste regulations. (The Department is required to adopt federal hazardous waste regulations within specified time frames. Base RCRA regulations promulgated by EPA through June 30, 1990 must be adopted by July 1, 1991).

The Department must evaluate the environmental benefits of retaining a CFC program more stringent than EPA. After completing its evaluation, the Department will return to the EQC with a CFC regulatory recommendation.

2. Consider not adopting further portions of the federal hazardous waste program. This was discussed at the August 1990 EQC Work Session. The direction given the Department by the EQC was to continue to pursue authorization and adopt the necessary rules to remain authorized.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends Alternative 1 be chosen in order to remain authorized for the base RCRA program, to achieve authorization for the remaining portions of the RCRA and HSWA programs from EPA, to maintain an equivalent PCB program, and to further evaluate the CFC rule.

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CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE
POLICY:

The Department's policy is to seek and maintain authorization for the federal hazardous waste program and to implement a hazardous waste program no more stringent than the federal program. Only when there is a clear reason to ensure greater protection of the public and the environment should the Department's program be more stringent than EPA's. The addition, deletion or modification of waste streams, such as CFCs, will generally be assessed by an advisory committee prior to EQC consideration.

ISSUES FOR COMMISSION TO RESOLVE:

Should the Department maintain RCRA authorization and an equivalent PCB program by adopting these federal rules?

INTENDED FOLLOWUP ACTIONS:

Upon approval by the Commission, the Department will file the amended regulations with the Secretary of State.

Approved:

Section:

Division:

Director:

Ray W. Brown
Stephanie Hallock
Jill Hen

Report Prepared By: Gary Calaba

Phone: 229-6534

Date Prepared: February 15, 1991

gc/gjc
EQC3891b

Attachment A
Agenda Item: E
3/11/91 EQC Meeting

Before the Environmental Quality Commission of the State of Oregon

In the Matter of Amending and	)	Proposed Amendments and
Correcting OAR 340, Divisions 100,	)	Corrections
101, 102, 104, 105, 106, and 110)	

Unless otherwise indicated, material enclosed in brackets [] is proposed to be deleted and material that is underlined is proposed to be added.

1. Rule 340-100-001 is proposed to be amended as follows:

Purpose and scope.

340-100-001 (1) The Department finds that increasing quantities of hazardous waste are being generated in Oregon which, without adequate safeguards, can create conditions that threaten public health and the environment. It is therefore in the public interest to establish a comprehensive program to provide for the safe management of such waste.

(2) The purpose of the management program contained in Divisions 100 to 110 and 120 of this Chapter is to control hazardous waste from the time of generation through transportation, storage, treatment and disposal. Toxics use reduction, hazardous waste reduction, hazardous [W]waste [reduction] minimization [at the point of generation], beneficial use, recycling and treatment are given preference to land disposal. To this end, the Department intends to minimize the number of disposal sites and to tightly control their operation.

(3) Divisions 100 to 106 incorporate, by reference, hazardous waste management regulations of the federal program, included in 40 CFR Parts 260 to 266, 268, 270 and Subpart A of 124, into Oregon Administrative Rules. Therefore, persons must consult these parts of 40 CFR in addition to Divisions 100 to 106 and 120 of these rules to determine all applicable hazardous waste management requirements.

Attachment A
Agenda Item: E
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(4) A secondary purpose is to obtain EPA Final Authorization to manage hazardous waste in Oregon in lieu of the federal program.

2. Rule 340-100-002 is proposed to be corrected and amended as follows:

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-100-002 (1) Except as otherwise modified or specified by OAR Chapter 340, Divisions 100 to 106, 109 and 120, the rules and regulations governing the management of hazardous waste, including its generation, transportation [by air or water], treatment, storage and disposal, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Parts 260 to 266, 268, 270 and Subpart A of 124, and amendments thereto promulgated [prior to] through July 1, 19[86]90, [and amendments listed below in section (2) of this rule] are adopted by reference and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080, and 466.090 to 466.215.

[(2) In addition to the regulations and amendments promulgated prior to July 1, 1986, as described in section (1) of this rule, the following amendments to Title 40 Code of Federal Regulations, Part 260 to 266, 270 and Subpart A of 124, as published in volumes 51 and 52 of the Federal Register (FR), are adopted and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080, and 466.090 to 466.215:

(a) Amendments pertaining to liability coverage for hazardous waste management facilities, in 51 FR 25354-56 (July 11, 1986).

(b) Revised standards for hazardous waste storage and treatment tank systems, in 51 FR 25470-86 (July 14, 1986).

(c) Amendments to the rules concerning identification and listing of hazardous waste, in 51 FR 28298-310 (August 6, 1986).

(d) Technical corrections to the HSWA final codification rule, in 51 FR 28556 (August 8, 1986).

(e) Amendments to the rules concerning exports of hazardous waste, in 51 FR 28682-86 (August 8, 1986).

(f) corrections to the revised standards for hazardous waste storage and treatment tank systems, in 51 FR 29430-31 (August 15, 1986).

(g) Amendments clarifying the listing for spent pickle liquor from steel finishing operations, in 51 FR 33612 (September 22, 1986).

(h) Amendments concerning the waste minimization certification by hazardous waste generators, in 51 FR 35192-94 (October 1, 1986).

Attachment A
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3/11/91 EQC Meeting

- (i) Amendments to the rules concerning the identification and listing of hazardous waste, in 51 FR 37728-29 (October 24, 1986).
- (j) Amendments to the interim status standards for hazardous waste surface impoundments, in 52 FR 8708-9 (March 19, 1987).
- (k) Technical corrections to the rules concerning burning of hazardous waste fuel and used oil fuel in boilers and industrial furnaces, in 52 FR 11821-22 (April 13, 1987).
- (l) Technical corrections to the definition of solid waste, in 52 FR 21306-7 (June 5, 1987).
- (m) Amendments to the rules concerning the development of corrective action programs for hazardous waste land disposal facilities, in 52 FR 23450 (June 22, 1987).
- (n) Correction to the amended rules concerning the development of corrective action programs for hazardous waste land disposal facilities, in 52 FR 33936 (September 9, 1987).
- (o) Amends incorporation by reference of revised manual SW-846, in 52 FR 8072 (March 16, 1987).
- (p) Amendment to rules concerning groundwater monitoring; establishes an Appendix IX list of hazardous constituents, in 52 FR 25942 (July 9, 1987).
- (q) Identification and listing of hazardous wastes; a technical correction concerning identifying that residues in containers or liners are hazardous waste and not the containers, in 52 FR 26012 (July 10, 1987).
- (r) Amendments to the liability requirements for treatment, storage or disposal facilities; allows corporate guarantee and other financial mechanisms to cover liability in 52 FR 44314 (November 18, 1987); and 53 FR 33938 (September 1, 1988) respectively.
- (s) Establishes new standards for permitting miscellaneous hazardous waste management units, in 52 FR 46946 (December 10, 1987).
- (t) Establishes land disposal restrictions for f-listed solvents and dioxin containing wastes; prescribes treatment standards using toxicity characteristic leaching procedures (TCLP), in 51 FR 40572 (November 11, 1986).
- (u) Corrections to the November 7, 1986 regulations concerning land disposal restrictions; the addition of applicable section to both Parts 264 and 265, in 52 FR 21010 (June 4, 1987).
- (v) Amendments pertaining to the November 7, 1986 regulations concerning land disposal restrictions; rescinds non-migration petition authority and establishes "California List", in 52 FR 25760 (July 8, 1987).
- (w) Amendments to the test methods in the July 8, 1987 land disposal restrictions known as the "California List," 52 FR 41295 (October 27, 1987).
- (x) HSWA Codification Rules pertaining primarily to corrective action, in 52 FR 45788 (December 1, 1987).

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(y) Amendments pertaining to the regulations concerning treatability studies in 53 FR 27290 (July 19, 1988).

(z) Regulations prohibiting the land disposal of the "First Third" of hazardous wastes; assigns treatment standards for wastewaters and nonwastewaters, in 53 FR 31138 (August 17, 1988).

(aa) Amendments pertaining to regulations governing the modifications of hazardous waste management permits, in 53 FR 37912 (September 28, 1988).

(bb) Corrections to the September 28, 1988 regulations concerning permit modifications, in 53 FR 41649 (October 24, 1988).

(cc) Clarification of surface impoundment retrofitting requirements as they pertain to closure requirements, in 53 FR 24717 (June 30, 1988).

(dd) Amendments pertaining to groundwater monitoring and statistical evaluation procedures, in 53 FR 39720 (October 11, 1988).

(ee) Amendments pertaining to the regulations governing wastes from metal smelting operations; relists potliners and other metal wastes, in 53 FR 35412 (September 13, 1988).

(ff) Corrections to the August 15, 1986 regulations pertaining to hazardous waste storage and treatment tanks, in 53 FR 34079 (September 2, 1988).

(gg) Amendment to the September 22, 1986 rules concerning spent pickle liquor, in 52 FR 28697 (August 3, 1987).

(hh) Amendments to the rules concerning the identification and listing of hazardous waste; deletion of dextran and strontium sulfide from the list in 40 CFR 261.33(f), in 53 FR 43878 and 43884 (October 31, 1988).

(ii) Technical corrections; identification and listing of hazardous waste; 40 CFR Part 261, in 53 FR 13382 (April 22, 1988).]

(Rev. [6/2/89] 3/8/91)

3. Rule 340-100-003 is proposed to be corrected as follows:

Confidentiality.

340-100-003 (1) The provisions of this rule replace the provisions of 40 CFR 260.2.

(2) Records, reports, and information submitted pursuant to these rules may be claimed as confidential by the submitter. Such claim must be asserted at the time of submission by stamping the words "confidential business information" or the equivalent on each page containing such information. If no claim is made at the time of submission, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with

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ORS 192.500 and [459.460] 466.090(2).

(3) Records, reports, and information submitted pursuant to these rules shall be made available to EPA upon request. If the records, reports, or information has been submitted under a claim of confidentiality, the state shall make that claim of confidentiality to EPA for the requested records, reports or information. The federal agency shall treat the records, reports or information that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

(Comment: It is suggested that claims of confidentiality be restricted to that information considered absolutely necessary and that such information be clearly separated from the remainder of the submission.)

4. Rule 340-100-004 is proposed to be amended as follows:

Table of contents, Divisions 100 to 110 and 120.

340-100-004 The following Divisions including the incorporation of regulations in 40 CFR Parts 260 to 266, 268, 270 and 124, comprise the Oregon hazardous waste management program:

<u>Division</u>	<u>Subject</u>
100	Hazardous Waste Management System: General
101	Identification and Listing of Hazardous Waste
102	Standards Applicable to Generators of Hazardous Waste
103	Standards Applicable to Transporters of Hazardous Waste [by Air or Water]
104	Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
105	Management Facility Permits
106	Permitting Procedures
108	Spills and Other Incidents
109	Management of Pesticide Wastes
110	Polychlorinated Biphenyls (PCBs)
<u>120</u>	<u>Additional Siting and Permitting Requirements for Hazardous Waste and PCB Treatment and Disposal Facilities</u>

5. Rule 340-100-010 is proposed to be corrected as follows:

Definitions.

340-100-010 (1) The definitions of terms contained in this

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rule modify, or are in addition to, the definitions contained in 40 CFR 260.10.

(2) When used in Divisions 100 to 110 and 120 of this Chapter, the following terms have the meanings given below:

(a) "Administrator" means:

- (A) The "Department," except as specified in paragraphs (2)(a)(B) or (C) of this rule;
- (B) The "Commission," when used in 40 CFR 261.10 and 261.11;

or

(C) The Administrator of the U.S. Environmental Protection Agency, when used in 40 CFR 262.50.

(b) "Aquatic LC₅₀" (median aquatic lethal concentration) means that concentration of a substance which is expected in a specific time to kill 50% of an indigenous aquatic test population (i.e., fish, insects or other aquatic organisms). Aquatic LC₅₀ is expressed in milligrams of the substance per liter of water.

(c) "Beneficiation of ores and minerals" means the upgrading of ores and minerals by purely physical processes (e.g., crushing, screening, settling, flotation, dewatering and drying) with the addition of other chemical products only to the extent that they are a non-hazardous aid to the physical process (such as flocculants and deflocculants added to a froth-flotation process).

(d) "Collection." See "Storage."

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

(f) "Department" means the Department of Environmental Quality except it means the Commission when the context relates to a matter solely within the authority of the Commission such as: the adoption of rules and issuance of orders thereon pursuant to ORS [459.440]466.020, [459.445]466.075 and [468.903]466.510; the making of findings to support declassification of hazardous wastes pursuant to ORS [459.430(3)]466.015(3); the issuance of exemptions pursuant to ORS [459.505(2)]466.095(2); the issuance of disposal site permits pursuant to ORS [459.580(2)]466.140(2); and the holding of hearings pursuant to ORS [459.560]466.130, [459.580(2)]466.140(2), [459.620]466.170, [459.650]466.185, and [459.660]466.190.

(g) "Director" means:

- (A) The "Department," except as specified in paragraph (2)(g)(B) of this rule; or
- (B) The "permitting body," as defined in section (2) of this rule, when used in 40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15 and 124.17.

(h) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste or hazardous substance into or on any land or water so that the hazardous waste or hazardous substance or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters of the state as defined in ORS 468.700.

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(i) "EPA" or "Environmental Protection Agency" means the Department of Environmental Quality.

(j) "EPA Form 8700-12" means EPA Form 8700-12 as modified by the Department.

(k) "Existing hazardous waste management (HWM) facility" or "existing facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980, or is in existence on the effective date of statutory or regulatory changes under Oregon law that render the facility subject to the requirement to have a permit. A facility has commenced construction if:

(A) The owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction; and either

(B) (i) A continuous on-site, physical construction program has begun, or

(ii) The owner or operator has entered into contractual obligations--which cannot be cancelled or modified without substantial loss--for physical construction of the facility to be completed within a reasonable time.

(l) "Extraction of ores and minerals" means the process of mining and removing ores and minerals from the earth.

(m) "Generator" means the person who, by virtue of ownership, management or control, is responsible for causing or allowing to be caused the creation of a hazardous waste.

(n) "Hazardous substance" means any substance intended for use which may also be identified as hazardous pursuant to Division 101.

(o) "Hazardous waste" means a hazardous waste as defined in 40 CFR 261.3.

(p) "Identification number" means the number assigned by EPA to each generator, transporter, and treatment, storage and disposal facility.

(q) "License." See "Permit."

(r) "Management facility" means a hazardous waste treatment, storage or disposal facility.

(s) "Off-site" means any site which is not on-site.

(t) "Oxidizer" means any substance such as a chlorate, permanganate, peroxide, or nitrate, that yields oxygen readily or otherwise acts to stimulate the combustion of organic matter (see 40 CFR 173.151).

(u) "Permitting body" means:

(A) The Department of Environmental Quality, when the activity or action pertains to hazardous waste storage or treatment facility permits; or

(B) The Environmental Quality Commission, when the activity or action pertains to hazardous waste disposal facility permits.

(v) "Permit" or "license" means the control document that contains the requirements of ORS Chapter [459]466 and Divisions

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104 to 106 and 120. Permit includes permit-by-rule and emergency permit. Permit does not include any permit which has not yet been the subject of final Department action, such as a draft permit or a proposed permit.

(w) "RCRA" or "Resource Conservation and Recovery Act," when used to refer to a federal law, means Oregon law.

(x) "RCRA permit" means Oregon hazardous waste management facility permit.

(y) "Regional Administrator" means:

(A) The "Department," except as specified in paragraphs (2)(y)(B) or (C) of this rule;

(B) The "permitting body," as defined in section (2) of this rule, when used in 40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15 and 124.17.

(C) The "Commission," when used in 40 CFR 260.30 through 260.41.

(z) "Residue" means solid waste as defined in 40 CFR 261.2.

(aa) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

(bb) "Spill" means unauthorized disposal.

(cc) "Storage" or "collection" means the containment of hazardous waste either on a temporary basis or for a period of years, in a manner that does not constitute disposal of the hazardous waste.

(dd) "Waste management unit" means a contiguous area of land on or in which waste is placed. A waste management unit is the largest area in which there is a significant likelihood of mixing of waste constituents in the same area. Usually this is due to the fact that each waste management unit is subject to a uniform set of management practices (e.g., one liner and leachate collection and removal system). The provisions in the Division 104 regulations (principally the technical standards in Subparts K-N of 40 CFR Part 264) establish requirements that are to be implemented on a unit-by-unit basis.

6. Rule 340-100-011 is proposed to be corrected as follows:

References.

340-100-011 (1) In addition to the publications listed in 40 CFR 260.11, when used in Divisions 100 to 110 and 120, the following publications are incorporated by reference:

(a) Code of Federal Regulations, Title 40, U.S. Environmental Protection Agency.

(b) Code of Federal Regulations, Title 49, U.S. Department of Transportation.

(2) The references listed in section (1) of this rule and in 40 CFR 260.11 are available for inspection at the Department of

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Environmental Quality, [522]811 SW [Fifth]Sixth Ave., Portland, Oregon, 97204. These materials are incorporated as they exist on [April 30, 1985]July 1, 1990.

7. Rule 340-101-001 is proposed to be corrected as follows:

Purpose and scope.

340-101-001 (1) The purpose of this Division is to identify those residues which are subject to regulation as hazardous wastes under Divisions 100 to 108 of this Chapter.

(2) Persons must also consult 40 CFR Parts 260-266, 268, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

8. Temporary rule OAR 340-101-024 is proposed to be deleted as follows:

[Toxicity Characteristic.

340-101-024 (1) Effective September 25, 1990, generators who test their residues to determine whether the residues are a hazardous waste exhibiting the characteristic of toxicity [for contaminants with the hazardous waste codes D004, D005, D006, D007, D008, D009, D010, D011, D012, D013, D014, D015, D016, and D017] shall comply with 40 CFR 261.24 as found in 55 FR, No. 61, pg. 11862, March 29, 1990, and the corrections in FR 55, Vol. 126, pg. 26966-26998, June 29, 1990.

(2) Effective September 25, 1990, any treatment or disposal facility managing a state or federal toxicity characteristic (TC) hazardous waste as designated in 40 CFR 261.24, 55 FR, No. 61, pg. 11862, March 29, 1990, and the corrections in FR 55, Vol. 126, pg. 26966-26998, June 29, 1990, resulting from off-site generation must comply with OAR Chapter 340, Divisions 100-120, and shall obtain a permit prior to accepting or managing these wastes.]

[(Adopted 8/10/90)](Rev. 3/8/91)

9. Rule 340-101-033 is proposed to be amended as follows:

Additional hazardous wastes.

340-101-033 (1) The residues identified in sections (2) and (3) of this rule are hazardous wastes and are added to and made a part of the list of hazardous wastes in 40 CFR 261.33.

(2) Any residue, including but not limited to manufacturing

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process wastes and unused chemicals that has either:

(a) A 3% or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(e); or

(b) A 10% or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(f).

(3) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water, of either:

(a) A residue identified in subsection (2)(a); or

(b) A residue identified in subsection (2)(b).

(c) A residue identified in subsections (2)(a) or (2)(b) as a hazardous waste has the hazardous waste letters "OR" followed by the corresponding hazardous waste number(s) in 40 CFR 261.33(e) and (f).

(4) The wastes identified in subsections (2)(a) and (3)(a) of this rule are identified as acutely hazardous wastes (H) and are subject to the small quantity exclusion defined in 261.5(e).

(Comment: Sections (2) and (3) of this rule shall be applied to a manufacturing process waste only in the event it is not identified elsewhere in this Division, but prior to application of section (5) of this rule.)

(5)(a) A pesticide residue or pesticide manufacturing residue is a toxic hazardous waste if a representative sample of the residue exhibits a 96-hour aquatic LC₅₀ equal to or less than 250 mg/l. (b) A pesticide residue or pesticide manufacturing residue identified in subsection (5)(a) of this rule but not in 40 CFR 261.24 or listed elsewhere in Subpart D of 40 CFR Part 261, has the Hazardous Waste Number of X001 and is added to and made a part of list of hazardous wastes in 40 CFR 261.31.

(6)(a) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates identified in subsection (6)(b) this rule are added to and made a part of the list in 40 CFR 261.33(e):

(b) P999. . . .Nerve agents (such as GB (Sarin) and VX).

(7) Hazardous waste identified in this section is not subject to 40 CFR Part 268.

(Rev. 3/8/91)

10. Rule 340-102-010 is proposed to be corrected and amended as follows:

Purpose, Scope and Applicability

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340-102-010 (1) The purpose of this Division is to establish standards for generators of hazardous waste.

(2) Persons must also consult 40 CFR Parts 260-266, 268, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(3) In addition to the provisions of 40 CFR Parts 262.10, a person identified in section (4) of this rule who produces a pesticide residue, excluding unused commercial pesticide, that is hazardous solely by application of section (5) of rule 340-101-033, is exempt from compliance with Divisions 100 to 106 provided such person complies with the requirements of Division 109.

(4) Exemptions under section (3) of this rule: Any person who produces an unwanted pesticide residue from agricultural pest control (for example, on crops, livestock, Christmas trees, commercial nursery plants or grassland); industrial pest control (for example, in warehouses, grain elevators, tank farms or rail yards); structural pest control (for example, in human dwellings); ornamental and turf pest control (for example, on ornamental trees, shrubs, flowers or turf); forest pest control; recreational pest control (for example, in parks or golf courses); governmental (for example, for clearing a right-of-way, or vector, predator, and aquatic pest control); seed treatment; and pesticide demonstration and research.

(5) A person who generates a hazardous waste as defined by 40 CFR 261.3 must comply with the requirements of this Division. Failure to comply will subject a person to the compliance requirements and penalties prescribed by ORS [459.650]466.185 to [459.690]466.210, 459.992, 466.995, [and] 459.995, 466.880, 466.890, 466.895, 466.900 and OAR Chapter 340, Division 12.

11. Rule 340-102-011 is proposed to be amended as follows:

Hazardous Waste Determination

340-102-011 (1) The provisions of this rule replace the requirements of 40 CFR 262.11.

(2) A person who generates a residue as defined in rule 340-100-010 must determine if that residue is a hazardous waste using the following method:

(a) [He]Persons should first determine if the waste is excluded from regulation under 40 CFR 261.4 or rule 340-101-004.

(b) [He]Persons must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261, excluding application of rule 340-101-033.

(Comment: Even if the waste is listed, the generator still has an opportunity under rule 340-100-022 to demonstrate to the Commission that the waste from his/her particular facility or operation is not a hazardous waste.)

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(c) [If the waste is not listed as a hazardous waste by application of subsection (2)(b) of this rule, he] Regardless of whether a hazardous waste is listed in Subpart D of 40 CFR Part 261, persons must also determine whether the waste is [identified] hazardous under [in] Subpart C of 40 CFR Part 261 by either:

(A) Testing the waste according to the methods set forth in Subpart C of 40 CFR 261, or according to an equivalent method approved by the Department under rule 340-100-021; or

(Comment: In most instances, the Department will not consider approving a test method until it has been approved by EPA.)

(B) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is determined to be hazardous, the generator must refer to Divisions 100-106 and 40 CFR Part 264, 265 and 268 for possible exclusions or restrictions pertaining to management of his specific waste.

[(d)](e) If the waste is not identified as hazardous by application of subsection (2)(b) and/or (c) of this rule, [he] persons must determine if the waste is listed under rule 340-101-033.

12. Rule 340-102-041 is proposed to be amended as follows:

Quarterly Reporting

340-102-041 (1) The provisions of this rule replace the requirements of 40 CFR 262.41.

(2) A person producing at any time more than one (1) kilogram of acutely hazardous waste, a total of 100 kilograms or more of hazardous waste in a calendar month, or who accumulates on-site at any time more than 1,000 kilograms of hazardous waste, shall submit Quarterly Reports to the Department from that point forward, unless no additional hazardous waste is generated for a period of one year and the person requests in writing that the Department withdraw his/her generator registration. Reports are due within 45 days after the end of each calendar quarter:

(a)(A) The Quarterly Report shall include, but not be limited to the following information:

(i) A copy of the completed manifest or a listing of the information from each manifest for each shipment made during the calendar quarter.

(ii) A listing of all additional hazardous waste generated during the quarter that was sent off-site without a manifest or was used, reused or reclaimed on-site, on a form provided by the Department. The listing shall include, but not be limited to:

(I) The generator's name and address;

(II) The generator's U.S. EPA/DEQ Identification Number;

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(III) Identification of the calendar quarter in which the waste was generated;

(IV) The type and quantity of each waste generated, by EPA code number; and

(V) The disposition of each waste, including the identity of the receiving party for wastes shipped off-site and handling method; and

(iii) If no hazardous waste was generated during the quarter, a statement to that effect, on a form provided by the Department.

(B) The Quarterly Report must be accompanied by the following certification signed and dated by the generator or his/her authorized representative:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(3) Any generator who is required to have a permit for the treatment, storage or disposal of hazardous waste on-site must also submit a report covering those wastes and activities in accordance with the provisions of rule 340-104-075 and of 40 CFR, Part 266.

(4) In addition to the requirements of sections (2) and (3) of this rule, on an annual basis, a person subject to the requirements of section (2) of this rule shall also submit, with the fourth quarter report, the following information:

(a) A description of the efforts undertaken during the calendar year to reduce the volume and toxicity of wastes generated and to recycle wastes, on a form provided by the Department;

(b) A description of the changes in volume and toxicity of wastes actually achieved during the calendar year, in comparison to previous years, to the extent such information is available, on a form provided by the Department.

(Rev. 3/8/91)

13. Rule 340-102-042 is proposed to be added to correct 40 CFR 262.42(b) as follows:

Exception Reporting

340-102-042 The provisions of 40 CFR 262.42 (b) are deleted.

(Adopt. 3/8/91)

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14. Rule 340-102-044 is proposed to be corrected as follows:

Special requirements for Generators of Between 100 and 1000 kg/mo.

340-102-044 Concerning recordkeeping and reporting, [T]the provisions of 40 CFR 262.44 (b) are deleted.
(Comment: Small Quantity Generators must comply with the requirements in 40 CFR 262.40(a), (c), (d), OAR 340-102-040, 40 CFR 262.42 for generators of greater than 1000 kg/mo. of hazardous waste, and the requirements in 40 CFR 262.43 (c).

(Rev. 3/8/91)

15. Rule 340-102-070 is proposed to be amended as follows:

Farmers

340-102-070 In addition to the provisions of 40 CFR 262.70, a farmer disposing of waste pesticides from his/her own use which are hazardous wastes shall comply with the requirements of Division 109 of these rules.

(Rev.3/8/91)

16. Rule 340-104-001 is proposed to be corrected and amended as follows:

Purpose, scope and applicability.

340-104-001 (1) The purpose of this Division is to establish minimum State standards which define the acceptable management of hazardous waste.

(2) Persons must also consult 40 CFR Parts 260-266, 268, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(3)(a) The provisions of subsection (3)(b) of this rule replace the requirements of 40 CFR 264.1(d).

(b) The requirements of this Division apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the following extent: 40 CFR 264.11 (identification number), 264.16 (personnel training), 264.71 (manifest system), 264.72

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(manifest discrepancies), 264.73(a), (B)(1) and (B)(2) (operating record), 264.75 (periodic report), and 264.76 (unmanifested waste report). When abandonment is completed, the owner or operator must submit to the Department certification by the owner or operator and by an independent registered professional engineer that the facility has been closed in a manner that will ensure that plugging and abandonment of the well will not allow the movement of fluids either into an underground source of drinking water or from one underground source of drinking water to another.

(4) The provisions of 40 CFR 264.1(f) are deleted.

(5) In addition to the requirements of 40 CFR 264.1(g)(8)(iii), any person covered by 40 CFR 264.1(g)(iii) shall comply with the applicable requirements of Divisions 100 to 108.

(6) Persons receiving from off-site solid waste which becomes hazardous waste by virtue of federal or state statute or regulation and who treat or dispose of such waste shall comply with the applicable requirements of Divisions 100 to 106, 120, and 40 CFR Parts 264 and 265 and must receive a final permit before managing the waste.

(Adopted 3/8/91)

17. Rule 340-104-004 is proposed to be corrected as follows:

Imminent Hazard Action.

340-104-004 (1) The provisions of section (2) of this rule replace the provisions of 40 CFR 264.4.

(2) Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to ORS [459.650]466.185 to [459.690]466.210.

(Rev. 3/8/90)

18. Rule 340-104-074(2) is proposed to be corrected as follows:

Availability of records.

340-104-074(2) All records, including plans, required under this Division must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the Department as authorized by ORS [459.285]466.185.

19. Rule 340-105-001 is proposed to be corrected as follows:

Purpose, scope and applicability.

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340-105-001 (1) The purpose of this Division is to establish basic permitting requirements, such as application requirements, standard permit conditions, monitoring and reporting requirements, and management requirements for existing facilities which have not been issued a RCRA permit.

(2) Persons must also consult 40 CFR Parts 260-266, 268, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(3) The provisions of Section (3) of this rule replace the contents of 40 CFR 270.1(a), 270.1(b) and 270.1(c) prior to paragraph (c)(1).

(4)(a) Technical regulations. The hazardous waste permit program has separate additional regulations that contain technical requirements. These separate regulations are used by the Department to determine what requirements must be placed in permits if they are issued. These separate regulations are located in 40 CFR Part 264 and Division 104 of this Chapter.

(Comment: Although the permit applicant or permittee will interface primarily with the Department as is indicated by these rules, hazardous waste disposal facility permits are technically issued by the Environmental Quality Commission while hazardous waste storage and treatment facility permits are issued by the Department.)

(b) Applicability. The state hazardous waste program requires a permit for the "treatment," "storage" or "disposal" of any "hazardous waste" as identified or listed in Division 101 of this Chapter. The terms "storage," "disposal" and "hazardous waste" are defined in Rule 340-100-010. The term "treatment" is defined in 40 CFR 260.010. Owners and operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit, and, for any unit which closes after the effective date of these rules, during any post-closure care period required under 40 CFR 264.117 and during any compliance period specified under 40 CFR 264.96, including any extension of the compliance period under 40 CFR 264.96(c).

20. Rule 340-105-010 is proposed to be amended as follows:

General application requirements and requirements applicable to existing management facilities.

340-105-010 (1) The requirements of Sections (2), (3), (4) and (5) of this rule replace the provisions of 40 CFR 270.10(e) to 270.10(i) regarding application requirements.

(2) Existing management facilities:

(a) Owners and operators of existing hazardous waste management facilities that do not have a permit must submit a Part

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A permit application to the Department within thirty days after the effective date of statutory or regulatory changes under Oregon law that render the facility subject to the requirement to have a permit. In addition, persons receiving from off-site solid waste which by virtue of federal or state statute or regulation becomes hazardous waste and who treat or dispose of such waste shall comply with the applicable requirements in Divisions 100-106, 120, and 40 CFR Parts 264 and 265, and must receive a final permit before managing the waste.

(b) The Department may at any time require the owner or operator of an existing management facility to submit Part B of their permit application. The owner or operator shall be allowed at least six months from the date of request to submit Part B of the application. Any owner or operator of an existing management facility may voluntarily submit Part B of the application at any time.

(c) An owner or operator that has not submitted an acceptable Part A permit application, or an acceptable Part B permit application when required to do so, or does not operate in compliance with the regulations of 40 CFR Part 265, or Division 120, as required by this rule, shall be subject to Department enforcement action including termination of the facility's operation.

(d) If an owner or operator of an existing management facility has filed a Part A permit application but has not yet filed a Part B permit application, the owner or operator shall file an amended Part A application:

(A) No later than 15 days after the effective date of the adoption of rules listing or designating wastes as hazardous if the facility is treating, storing or disposing of any of those newly listed or designated wastes; or

(B) Prior to any of the following actions at the facility:

(i) Treatment, storage or disposal of a new hazardous waste not previously identified in Part A of the permit application;

(ii) Increases in the design capacity of processes used at a facility. The owner or operator must submit a justification explaining the need for the increase based on the lack of available treatment, storage or disposal capacity at other hazardous waste management facilities, and receive Department approval before making such increase.

(iii) Changes in the processes for the treatment, storage or disposal of hazardous waste. The owner or operator must submit a justification explaining that the change is needed because:

(I) It is necessary to prevent a threat to human health or the environment because of an emergency situation, or

(II) It is necessary to comply with the requirements of Divisions 100 to 108. The owner or operator must receive Department approval before making such change.

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(iv) Changes in the ownership or operational control of a facility. The new owner or operator must submit a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the requirements of Subpart H of 40 CFR Part 265 (financial requirements), until the Department has released him in writing. The Department shall not release the old owner or operator until the new owner or operator has demonstrated to the Department that he is complying with that Subpart. All other duties required by these rules are transferred effective immediately upon the date of the change of ownership or operational control of the facility.

(e) In no event shall changes which amount to reconstruction of the facility be made to an existing hazardous waste management facility which has not been issued an effective RCRA permit. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty percent of the capital cost of a comparable, entirely new hazardous waste management facility.

(3) New management facilities. (a) No person shall begin physical construction of a new management facility without having submitted Part A and Part B of the permit application, complied with Division 120, and having received a finally effective hazardous waste permit.

(b) An application for a permit for a new management facility (including both Part A and Part B) may be filed with the Department any time after promulgation of those standards in Division 104 applicable to such facility. All applications must be submitted at least 180 days before physical construction is expected to commence.

(4) Reapplication. Any management facility with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(5) Recordkeeping. Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under 40 CFR 270.10(d), 270.13, 270.14 through 270.21 for a period of at least 3 years from the date the application is signed.

(6) The requirements of Section (6) are applicable to existing management facilities.

(a) An owner or operator of an existing management facility that has not been issued a management facility permit shall comply with the regulations of 40 CFR Part 265 until final administrative disposition of a permit is made.

(b) After September 1, 1985, and until final administrative disposition of a permit under these rules is made, an owner or operator of a management facility that has received a State-issued

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non-RCRA permit shall comply with the regulations of 40 CFR Part 265 in those instances where a regulation exists and with the conditions of the permit in those instances where a regulation does not exist.

(7) After final administrative disposition of a permit is made, a management facility shall not treat, store or dispose of hazardous waste without a permit issued in accordance with Divisions 100 to 106.

(Rev. 3/8/91)

21. Rule 340-105-012 is proposed to be corrected as follows:

Confidentiality of information.

340-105-012 (1) The provisions of this rule replace the provisions of 40 CFR 270.12.

(2) In accordance with ORS 192.500 and [459.460]466.090(2) , any information submitted to the Department pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information," or the equivalent, on each page containing such information. If no claim is made at the time of submission, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in ORS 192.500 and [459.460]466.090(2).

(Comment: Any information stamped confidential must be accompanied by an explanation as to why it should be so considered under the criteria of ORS 192.500 and [459.460]466.090(2). The Department believes that very little, if any, information in an application will meet the criteria.)

(3) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

(4) Any information submitted to the Department shall be available to the Environmental Protection Agency upon request. If the information has been submitted under a claim of confidentiality, the Department shall make that claim of confidentiality to the Environmental Protection Agency for the requested information. The federal agency shall treat the information that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

(Rev. 3/8/91)

22. Rule 340-105-013 is proposed to be amended as follows:

Contents of Part A of the permit application.

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340-105-013 In addition to the requirements of 40 CFR 270.13, Part A of the permit application shall include applicable requirements of Division 120 and a statement of compatibility with the acknowledged local comprehensive plan and zoning requirements or the Land Conservation and Development Commissions's Statewide Planning Goals.

23. Rule 340-105-021 is proposed to be amended as follows:

Specific Part B information requirements for landfills.

340-105-021 In addition to the information required by 40 CFR 270.21, the following additional information shall be submitted in a Part B application:

(1) A detailed report with supporting information justifying the need for the landfill as proposed; and

[(2) An explanation of how the requirements of rule 340-104-314 will be complied with after January 1, 1985.]

(Rev. 3/8/91)

24. Rule 340-106-001 is proposed to be corrected as follows:

Purpose and Scope

340-106-001 (1) The purpose of this Division is to establish the procedures for issuing, modifying, revoking and reissuing, or terminating all hazardous waste permits other than hazardous waste emergency permits and hazardous waste permits by rule.

(Comment: Although the permit applicant or permittee will interface primarily with the Department as is indicated by these rules, hazardous waste disposal facility permits are issued by the Environmental Quality Commission while hazardous waste storage and treatment facility permits are issued by the Department.)

(2) Persons must also consult 40 CFR Parts 260-266, 268, 270 and 124, which are incorporated by reference in rule 340-100-002, to determine all applicable hazardous waste management requirements.

(Comment: 40 CFR Part 124 includes requirements applicable to several programs, including UIC, NPDES, 404, etc. Only the provisions of 40 CFR Part 124 Subpart A which are applicable to hazardous waste or "RCRA" permits are incorporated by reference in rule 340-100-002, as modified by Division 106.

(Rev. 3/8/91)

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25. Rule 340-110-001 is proposed to be amended as follows:

Purpose, Scope and Applicability.

340-110-001 (1) The purpose of this Division is to establish requirements for the storage, treatment, disposal and marking prior to disposal of PCB and PCB items.

(2) These regulations are in addition to and do not preempt any local, state or federal statutes or regulations.

(3) This Division incorporates, by reference, PCB management regulations of the federal program, included in 40 CFR Part 761 as of July 1, 1989 and amendments to 40 CFR Part 761 in 54 FR 52716 of December 21, 1989, into Oregon Administrative Rules. Persons must consult 40 CFR Part 761 in addition to this Division to determine all applicable PCB management requirements. Persons must also consult Division 120 of this chapter for additional siting and permitting requirements for PCB disposal.

26. Rule 340-110-020 is proposed to be corrected as follows:

Manufacturing, Processing, Distribution in Commerce and Use of PCB and PCB Items.

340-110-020(1) The provisions of 40 CFR 761.20 through 761.3[9]0 are deleted.

27. Rule 340-110-080 is proposed to be amended as follows:

Records and Monitoring.

340-110-080 [(1) The provisions of 40 CFR 761.180(a)(3) are deleted.]

[(2) Data reported to the Department as required by 40 CFR 761.180 shall be in both pounds and kilograms.]

[(3)] (1) The provisions of 40 CFR 761.185 through 761.193 are deleted.

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF CORRECTING AND	)	STATEMENT OF NEED FOR
AMENDING CHAPTER 340	)	RULEMAKING
DIVISION 100, 101, 102, 104, 105,)	
106, 110)	

STATUTORY AUTHORITY

ORS 466.020 requires the Commission to:

- (1) Adopt rules to establish minimum requirements for the treatment, storage, and disposal of hazardous wastes, minimum requirements for operation, maintenance, monitoring, reporting and supervision of treatment, storage and disposal sites, and requirements and procedures for selection of such sites.
- (2) Classify as hazardous wastes those residues resulting from any process of industry, manufacturing, trade, business or government or from the development or recovery of any natural resources, which may, because of their quantity, concentration, or physical, chemical or infectious characteristics:
 - (a) Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or
 - (b) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of or otherwise managed.

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- (3) Adopt rules pertaining to hearings, filing of reports, submission of plans and the issuance of licenses.
- (4) Adopt rules pertaining to generators, and to the transportation of hazardous waste by air and water.

NEED FOR THE RULES:

The state of Oregon is currently authorized by the federal government to manage the hazardous waste management program mandated by Congress under the Resource Conservation and Recovery Act (RCRA). In order to maintain authorization, the state must adopt new federal rules and repeal any existing state rules which are less stringent, within specified time frames. Loss of authorization would result in a federally-operated program in the state. The Oregon Legislature and Environmental Quality Commission support state authorization. The Legislature requires the Department and the Commission to take any action necessary to maintain Oregon's authorization.

PRINCIPLE DOCUMENTS RELIED UPON:

New federal hazardous waste management rules published in the Federal Register (FR) and proposed for incorporation by reference are: technical corrections to the Small Quantity Generator regulations, 53 FR 27162, 7/19/88; amendment listing methyl bromide, 54 FR 41402, 10/6/89; amendment listing chlorinated aliphatic wastes, 54 FR 50968, 12/11/89; amendment excluding F019 listing of wastewater treatment sludges from zirconium phosphating in aluminum can washing process, 55 FR 5340, 2/14/90; addition of organic constituents and Toxicity Characteristic Regulation and leaching procedures to characteristic toxicity listing, 55 FR 11798, 3/29/90; toxic characteristic revisions, FR 55 26986, 6/29/90; notice of renewal of hazardous waste manifest, 53 FR 45089, 11/8/88; extension of Manifest Expiration Date, 54 FR 7036, 2/16/89; amendments to SW-846, corrects 47 testing methods in SW-846, 55 FR 8948, 3/9/90; clarification of standards for owners and operators of management units, 54 FR 615, 1/9/89; standards for incinerators, 54 FR 4286, 1/30/89; amends procedures for post-closure permitting, 54 FR 9596, 3/7/89; corrections to the preamble concerning hazardous waste miscellaneous units, 54 FR 26198, 6/22/89, amends closure period for hazardous waste management facilities, 54 FR 155, 8/14/89; amends testing and monitoring requirements at hazardous waste management systems, 54 FR 40260, 9/29/89; amends double liner and leachate collection system requirements, 55 FR 19262, 5/9/90; corrections, multi-source leachate placed in third-third of schedule prohibiting land disposal, 54 FR 8264, 2/27/89; amends land disposal treatment standards for certain first third wastes, 54 FR 18836, 5/2/89;

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amends land Disposal restrictions for second third wastes, 54 FR 26594, 6/23/89; corrections to the land disposal restrictions, 54 FR 36967, 9/6/89; amends the land disposal restrictions, adds the third-third restrictions and treatment standards, 55 FR 22523, 6/1/90; and amends the management of Polychlorinated Biphenyls (PCBs), notification and manifesting requirements for PCB waste activities, 54 FR 52716, 12/21/89; identification and listing, land disposal restrictions, first third waste, preamble clarification, 54 FR 4021, 1/27/89; and technical clarification of criteria for listing hazardous waste, 55 FR 18726, 5/4/90.

In addition, other documents relied upon include OAR Chapter 340, Divisions 100, 101, 102, 104, 105, 106, 110 and 120.

FISCAL AND ECONOMIC IMPACT:

The federal regulations being proposed for adoption pertain to (1) the base RCRA program and (2) regulations promulgated by the U.S. EPA under the Hazardous and Solid Waste Amendments of 1984 (HSWA). The regulations will have a fiscal impact on the regulated community and the agency.

1. Regulations promulgated under HSWA authority are currently in effect in Oregon and are being implemented by EPA. Therefore, there is no new economic impact on the regulated community if the Department adopts these regulations. However, the implementation and enforcement of them by the Department will result in an impact on the Department, in the form of an increase in inspection costs, particularly costs associated with implementing the HSWA Toxicity Characteristic Rules (TCLP) and the Second-Third and Third-Third Land Disposal Restrictions. These new federal regulations require the inspector to spend more time at the facility analyzing its operation, records and hazardous waste streams. One option to cover the increase in costs is to pass the costs on to the regulated community in the form of fees. Another option would be to conduct fewer inspections. Once we determine the true impact of implementing the new regulations, we will determine the best approach.

The remaining federal regulations being proposed for incorporation by reference are corrections and clarifications and should not pose any increase in cost to the regulated community or the Department.

2. The only amendment to the Department's hazardous waste regulations that will have a fiscal impact is the one that eliminates the option of using federal interim status provisions. Under the federal program, treatment or disposal facilities

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managing or desiring to manage newly designated hazardous wastes from off-site may continue to do so under federal interim status provisions. The requirements of these provisions are minimal, and the Department has not adopted them because of the state's land use laws and the Department's siting requirements. Thus, facilities must meet the Department's more stringent requirements before they may operate. That has the effect of accelerating the expenses that, under federal guidelines, would be incurred when moving from interim to permanent permit status. In the short term, the costs of meeting minimal federal interim status provisions are likely to be considerably less than the costs to meet the Department's more substantive permitting and siting standards. Facilities will incur additional costs under the state's program because of not being able to operate and defray siting and permit processing costs until all of the state's standards are met and a permit is issued.

Proposed Adoption of Federal Hazardous Waste and
Polychlorinated Biphenyl Regulations

Hearing Date: January 17, 1991
Comments Due: January 21, 1991

WHO IS
AFFECTED:

Persons who generate, store, treat, dispose of hazardous waste and Polychlorinated Biphenyls (PCBs).

WHAT IS
PROPOSED:

The Department of Environmental Quality (DEQ) proposes to amend Chapter 340, Divisions 100, 101, 102, 104, 105, 106, and 110 to include federally promulgated regulations and corrections.

WHAT ARE THE
HIGHLIGHTS:

- o New regulations concerning land disposal restrictions including the Second-Third and Third-Third of scheduled hazardous wastes.
- o New regulations concerning the Toxicity Characteristic Rule and Toxicity Characteristic Leaching Procedure.
- o Corrections and amendments to federal hazardous waste listing of hazardous wastes.
- o Amendments to DEQ's regulations concerning generator waste characterization procedures.

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- o Amendments to DEQ's regulations clarifying permitting and siting requirements for treatment and disposal facilities receiving newly regulated wastes from off-site.

- o Amendments to DEQ's regulations clarifying Small Quantity Generator exception reporting requirements.

- o Corrections to statutory citations and adoption of PCB notification and manifesting requirements.

HOW TO
COMMENT:

Copies of the proposed rule package may be obtained from the Hazardous and Solid Waste Division, 811 S.W. Sixth Ave., Portland, Oregon 97204. Oral and written comments will be accepted at the public hearing:

9:00 A.M.-5:00 P.M.
Thursday January 17, 1991
DEQ Conference Room 3A (Third Floor)
811 S.W. Sixth Ave.
Portland, Oregon 97204

Written comments should be sent to Gary Calaba, DEQ Hazardous and Solid Waste Division, 811 S.W. Sixth Ave., Portland, Oregon 97204. Comments must be received by 5 P.M., January 21, 1991. For further information, contact Gary Calaba, (503) 229-6534, or toll-free within Oregon, 1-800-452-4011.

WHAT IS THE
NEXT STEP:

After the Public hearing, DEQ will evaluate the comments, prepare a response to the comments and make a recommendation to the Environmental Quality Commission in March 1991. The Commission may adopt the Amendments as proposed, adopt modified amendments as a result of the testimony received, or decline to adopt any amendments.

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STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: January 30, 1991

TO: Environmental Quality Commission

FROM: Gary Calaba, Hazardous and Solid Waste Division

SUBJECT: Agenda Item E, March 8, 1991 EQC Meeting
Hearings Officer's Report on Proposed Rule Amendments

A public hearing was convened at 9:00 a.m. on January 17, 1991, in the Department's offices at 811 S.W. Sixth Avenue, Portland, Oregon. The purpose of the hearing was to receive testimony concerning proposed amendments to the hazardous waste and Polychlorinated biphenyl regulations.

Eight people attended the hearing, in addition to staff. An attendance list is attached. No one wished to testify at the hearing. Staff answered questions and conducted an informal discussion about the proposed rules. The written testimony period closed on January 21, 1991, and no testimony was received.

gj/gjc

Attachment

OREGON DEPARTMENT OF ENVIRONMENTAL
QUALITY

PUBLIC HEARING

ATTENDANCE LIST

Date: January 17, 1991

Hearing: Proposed Amendments and Corrections to the Hazardous Waste and Polychlorinated Biphenyl (PCB) Rules, Oregon Administrative Rules (OAR) Chapter 340, Divisions 100-106, and 110.

NAME AND ADDRESS

REPRESENTING

Jon Davidson
10200 N. Lombard, Portland OR

Crown Cork and Seal Co.

John Mauerschmidt
3000 N.W. St. Helens Rd
Portland, OR 97210

Myers Container Corp.

PETER LARSEN - AND - ANITA THORNTON
5100 SW 64th Ave
Portland, OR 97206

POPL

DUANE LINNERTZ

CITY OF PORTLAND

Leonard Bunes
11330 SW Clay St
Sherwood, OR 97140

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Charles L Farwell
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Hillman P.U.D.
PNCC WEC Committee
NWPPA Haz Com.

OREGON DEPARTMENT OF ENVIRONMENTAL
QUALITY

PUBLIC HEARING

ATTENDANCE LIST

Date: January 17, 1991

Hearing: Proposed Amendments and Corrections to the Hazardous Waste and Polychlorinated Biphenyl (PCB) Rules, Oregon Administrative Rules (OAR) Chapter 340, Divisions 100-106, and 110.

NAME AND ADDRESS

REPRESENTING

CORINDE P. WILLISON
9500 SW BARBOR #100

HAZCON

Department Report: Summary
of Proposed Federal and State Rule
Amendments and Corrections

Following is a summary of the federal regulations the Department proposes to adopt:

1. Federal rules identifying and listing hazardous wastes.
 - a. HSWA. Technical corrections to the Small Quantity Generator regulations; 53 FR 27162; 7/19/88.
 - b. RCRA. Amends listing by adding methyl bromide to the lists of hazardous wastes; 54 FR 41402, 10/6/89.
 - c. RCRA. Amends chlorinated aliphatic waste listings; 54 FR 50968, 12/11/89.

This regulation lists as hazardous one generic category of waste generated during the manufacture of chlorinated aliphatic hydrocarbons by free radical catalyzed process having carbon chain lengths ranging from one to five (EPA Hazardous Waste No. F025). Also, this rule clarifies the listing description for F024; adds two toxicants to Appendix VIII; and makes final the designation as hazardous substances under CERCLA all of the wastes made final by this rule, including their reportable quantities.

- d. RCRA. Amends F019 listing to exclude wastewater treatment sludges from zirconium phosphating in aluminum can washing process; 55 FR 5340, 2/14/90.
 - e. HSWA. Toxicity Characteristic Leaching Procedure and Contaminants; replaces the Extraction Procedure Toxicity Test and Contaminants of Concern; 55 FR, 11798, 3/29/90.

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In August, the Department promulgated a temporary rule adopting the 14 Toxicity Characteristic pesticides and heavy metals. This was done to avoid requiring the regulated community to do dual testing using both the Extraction Procedure (EP Toxicity Test) and the new Toxicity Characteristic Leaching Procedure (TCLP) of their wastes to determine hazardous characteristics. The Department proposes to adopt in final form the Toxicity Characteristic Leaching Procedure and all contaminants of concern, including their regulatory levels.

Therefore, the Department proposes to delete the temporary rule, OAR 340-101-024(1).

f. HSWA. Toxicity Characteristic Revisions; 55 FR 26986, 6/29/90.

This rule amends the Toxicity Characteristic rule by clarifying the section on quality assurance, and corrects the rule to ensure consistency of the leaching procedure, Method 1311, with other RCRA testing methods contained in Test Methods for Evaluating Solid Waste, SW-846.

g. RCRA. Technical clarification of listing criteria; 55 FR 18726, 5/4/89.

EPA is clarifying that waste containing an appendix VIII constituent does not automatically become a listed hazardous waste. Rather, in making that determination, EPA considers other factors enumerated in 40 CFR 261.11(a)(3).

2. Federal rules amending hazardous waste generator requirements.

a. RCRA. Notice of renewal of hazardous waste manifest; 53 FR 45089, 11/8/88.

This rule renews the Uniform Hazardous Waste Manifest form without change and extends the expiration date to September 30, 1991. This action also mandates the burden disclosure statement. The statement must be included with each manifest, either on the form, in the instructions to the form, or accompanying the form. The statement is as follows:

"Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporter, and 10 minutes for treatment, storage and disposal facilities. This includes time for

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reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing their burden, to: Chief, Information policy Branch, PM-223, U.S. Environmental Protection Agency, m 40 M Street SW., Washington, DC., 20460."

b. RCRA. Extension of Manifest Expiration Date; 54 FR 7036, 2/16/89.

This notice informs all users of a six month extension of mandatory use of the new manifest form and burden disclosure statement from December 31, 1988, through June 30, 1989.

c. RCRA. Amendments to SW-846, corrects 47 testing methods in SW-846; 55 FR 8948, 3/9/90.

This rule corrects 47 testing methods by adding a list of 47 analytical testing methods to the section of the regulations that incorporates these methods by reference, 40 CFR 260.11(a) These new methods are found in the Third Edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Office of Solid Waste Publications SW-846, and its Revision I.

3. Federal rules amending hazardous waste treatment, storage and disposal permitting requirements.

a. RCRA. Standards for owners/operators of new and existing management units; clarification of standards for owners and operators of management units; 54 FR 615, 1/9/89.

This notice clarifies portions of the preamble and corrects several errors in the regulatory language in 40 CFR Part 264 standards regulating the Subpart X requirements for owners and operators of miscellaneous units.

b. RCRA. Standards for incinerators; amends regulatory procedures for obtaining permit for existing incinerators; 54 FR 4286, 1/30/89.

This rule clarifies 40 CFR 270.62(d), which describes procedures for permitting existing hazardous waste incineration facilities. The amendment requires existing incineration to conduct a trial burn or to submit other information as specified in Sec. 270.19(a) or (c) before a permit can be written for that facility.

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c. RCRA. Treatment, storage and disposal facilities; amends procedures for post-closure permitting at interim status facilities, 54 FR 9596, 3/7/89.

d. RCRA. Corrections to preamble, corrects preamble concerning hazardous waste miscellaneous units; 54 FR 26198, 6/22/89.

This correction modifies the preamble discussion pertaining to open burning/open detonation miscellaneous units.

e. RCRA. Hazardous waste management facilities; delay of closure period for hazardous waste management facilities; 54 FR 155, 33376, 8/14/89.

This rule amends portions of 40 CFR Part 264 standards for owners and operators of hazardous wastes treatment, storage and disposal facilities. The rule allows such facilities, under certain circumstances, to remain open after the final receipt of hazardous wastes in order to receive non-hazardous waste in that unit.

f. RCRA. Hazardous waste management systems; amends testing and monitoring requirements at hazardous waste management facilities; 54 FR 40260, 9/29/89.

This rule adopts 47 testing methods for use in meeting regulatory requirements.

g. RCRA. Hazardous waste management facilities; amends double liner and leachate collection system requirements, 5/9/90.

This is a correction to 40 CFR 264.221(c) and 264.301(c) as promulgated July 15, 1985. This correction applies to certain landfill and surface impoundment units for which Part B permit applications were received prior to November 8, 1984. Permits issued to such facilities are not required by federal statute to include double liner requirements and leachate collection systems, but may include such requirements were necessary to protect human health and the environment.

This rule will not affect any Oregon facilities.

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4. Federal rules pertaining to the land disposal restrictions.

a. HSWA. Corrections; multi-source leachate placed in third-third of schedule prohibiting land disposal, 54 FR 8264, February 27, 1989.

This correction clarifies that treatment standards for multi-source leachate will be promulgated no later than May 1990. Meanwhile, multi-source leachate may be land disposed.

b. HSWA. Amends land disposal treatment standards for certain first third wastes; 54 FR 18836, 5/2/89.

This rule amends 40 CFR 268.12 and 268.43, which lists the "no land disposal" requirements for certain first third scheduled wastes. The rule amends the "no land disposal" requirement by allowing disposal of certain first third wastes because there is no legal means of disposal for these wastes at this time.

c. HSWA. Amends land Disposal restrictions for second third wastes; 54 FR 26594; 6/23/89.

This rule implements the congressionally mandated requirement specifying treatment standards, including recycling, for the "second-third" hazardous wastes. The "second-third" hazardous wastes include certain "F", "P", "K" and "U" listed hazardous wastes.

d. HSWA. Corrections to the land disposal restrictions; 54 FR 36967, 9/6/89.

The Department has adopted the Land Disposal Restrictions for solvents, dioxin containing wastes, "California" listed wastes, and the "First" Third. This rule corrects errors and clarifies the language in the preamble and regulations of the "First" Third Land Disposal Restrictions.

e. HSWA. Amends the land disposal restrictions Adding; adds the third-third restrictions and treatment standards; 55 FR 22523, 6/1/90.

The rule amends the land disposal restriction regulations by adding the list of "third-third" hazardous wastes and their treatment standards. Third-third wastes includes wastes from the "D", "K", "U" and "P" lists.

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f. HSWA. Administrative stay of requirement that hazardous waste codes follow through to all wastes generated during the course of waste management of first third wastes; 54 FR 4021, 1/27/89.

In the preamble to the first third rule published August 17, 1988, EPA interpreted that hazardous waste codes associated with the original first third waste would need to follow through to all subsequent waste generated from managing the first third waste.

5. Federal rules amending the management of Polychlorinated Biphenyls (PCBs).

a. TSCA. Notification and manifesting requirements for PCB waste activities; 54 FR 52716, 12/21/89.

The Department incorporates by reference PCB requirements included in the federal regulations, 40 CFR Part 761, and proposes to modify its rules to adopt by reference these federal amendments. This amendments require (1) PCB handlers to notify the Department, (2) prepare and carry manifests for purposes of tracking the disposal of PCB waste, and (3) requires commercial PCB storage facilities to file closure plans and to demonstrate financial responsibility for the closure of their facility. Also, the rule amends certain recordkeeping requirements.

In reviewing its PCB record and monitoring requirements, the Department finds no compelling reason to retain OAR 340-110-180(1) and (2) and proposes to delete these state only requirements to maintain consistency with the federal PCB program.

Following are corrections and amendments to the Oregon Administrative Rules, OAR 340, Divisions 100, 101, 102, 104, 105, 106, and 110.

1. Corrections and amendments to Oregon rules, OAR 340, Divisions 100, 101, 102, 104, 105, 106, and 110.

a. Corrections

(1). Adoption of United States Environmental Protection Agency Hazardous Waste Regulations. OAR 340-100-002(1). Corrects Department's authorities concerning hazardous waste transportation.

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- (2). Confidentiality. OAR 340-100-003. Correct 459 citations.
- (3). Definitions. OAR 340-100-010(2)(f). Correct "459" citations. .
- (4). Definitions. OAR 340-100-010(2)(v). Correct "459" citation. Include reference to Division 120.
- (5). References. OAR 340-100-011(2). Include reference to Division 120, correct the Department's address, update reference to incorporated materials.
- (6). Purpose and Scope. OAR 340-101-001(2). Include reference to 40 CFR Part 268 regulations.
- (7). Purpose, scope, and Applicability. OAR 340-102-010(2) and (5). Include reference to 40 CFR Part 268 regulations and correct "459" citations respectively.
- (8). Exception Reporting. OAR 340-102-042. Adds a rule clarifying the Department's small quantity generator exception reporting requirements.
- (9). Special requirements for generators of between 100 and 1000 kg/mo. OAR 340-102-044. Adds a comment clarifying the Departments Small Quantity Generator requirements, including exception reporting.
- (10). Purpose, Scope and Applicability. OAR 340-104-001(2). Include reference to 40 CFR Part 268 requirements.
- (11). Imminent hazard action. OAR 340-104-004(2). Correct "459" citations.
- (12). Availability of records. OAR 340-104-074(2). Correct "459" citation.
- (13). Purpose, scope and applicability. OAR 340-105-001(2). Include reference to 40 CFR 268 requirements.
- (14). Confidentiality of information. OAR 340-105-012(2) and the comments section. Correct the "459" citations.
- (15). Purpose and scope. OAR 340-106-001(2). Include reference to 40 CFR Part 268 requirements.

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(16) Manufacturing, Processing, Distribution in Commerce and Use of PCB and PCB Items. OAR 340-110-020(1). The "761.39" citation should read "761.30."

b. Amendments.

(1). Purpose and scope. OAR 340-100-001(1). Amend by inserting wording concerning the Department's toxic use reduction legislative and regulatory commitments; and include references to 40 CFR Part 268 and Division 120 siting regulations.

(2). Adoption of U.S. EPA regulations. OAR 340-100-002(1). Describes the Department's federal regulatory status by amending the regulation to include the adoption by reference of all federal regulations not previously adopted by the Department. (See list of federal regulations being proposed for adoption through July 1 1990).

(3). Table of contents. OAR 340-100-004. In table of contents, deletes reference to air or water transportation standards in Division 103; and adds Division 120 subject and title.

(4). Toxicity characteristic. OAR 340-101-024(1). The Department proposes to delete the regulation. The Department adopts the final toxicity characteristic regulation by reference in 340-100-002(1). Also, the June 29, 1990 corrections to the TC rule are adopted in 340-100-002(1) by reference.

OAR 340-101-024(2) requires facilities to obtain a permit prior to managing a state or federal TC waste from off-site. The issue of off-site management of newly regulated hazardous wastes is addressed in Division 105, below. Therefore, OAR 340-102-024(2) is proposed for deletion.

(5). Additional hazardous waste. OAR 340-101-033(3)(c). Adds wording requiring the letters "OR" be placed before the hazardous waste codes listed in 40 CFR 261.33 (e) and (f) for Oregon only hazardous waste. This will prevent confusing DEQ only wastes with the federal 261.33 (e) and (f) wastes which must meet 40 CFR Part 268 land disposal restriction requirements.

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Also, a new paragraph, OAR 340-101-033(7), is being added to preclude Department only hazardous waste from having to meet the federal land disposal restrictions. The Department intends to address whether or not such waste should be subject to those restrictions.

(6). Purpose, Scope and Applicability. OAR 340-102-010(5). Adds additional statutory citations dealing with the Department's civil and criminal penalty authorities.

(7). Generator requirements. Hazardous waste determination. OAR 340-102-011(2)(a), (b), (c) and (e). Amends rule by replacing "he" with "persons."

OAR 340-102-011(c) is being amended to require generators to completely characterize wastes regardless of whether or not they are listed. Previous federal and state requirements allowed the characterization process to stop if a waste was listed. This new requirement is found in the federal Third-Third regulations, which the Department's adopting.

OAR 340-102-011(d) adds the federal requirement for generators to refer to 40 CFR Parts 264, 265, 268 for exclusions or restrictions pertaining to management of hazardous wastes. The Department neglected to adopt these requirements when it adopted the land disposal restrictions in 40 CFR Part 268 in 1989.

(8). Generator requirements. Quarterly reporting. OAR 340-102-041 (2)(a)(B). Amends wording to include feminine gender.

(9). Farmers. OAR 340-102-070. Amends wording to include feminine gender.

(10). Purpose, scope and applicability. Treatment, storage and disposal facility hazardous waste management standards. OAR 340-104-001(6). A new rule requiring treatment or disposal facilities receiving from off-site newly regulated federal or state hazardous wastes to meet all Department permitting requirements, including Division 120 siting standards, and receive a final permit before managing those wastes.

(11). General application requirements and requirements applicable to existing management facilities. OAR 340-105-010(2)(a). New wording

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requiring owners and operators receiving from off-site newly regulated state or federal hazardous wastes to comply with all Department hazardous waste regulations, including Division 120 siting standards, and to receive a final permit before managing those wastes.

OAR 340-105-010(2)(c). Clarifies siting compliance requirements by incorporating Division 120 siting requirements.

340-105-010(3). Adds wording clarifying that new management facilities must comply with Division 120 siting requirements.

(12). Contents of Part A of the Permit Application. OAR 340-105-013. Amended to require that the applicable Division 120 requirements be included in a Part A permit application.

(13). Specific Part B information requirements for landfills. OAR 340-105-021(2). Deleted. The Department deleted OAR 340-104-314 requirements in a previous rulemaking and neglected to delete this reference to that rule at that time.

(14). Polychlorinated Biphenyls (PCBs). OAR 340-110-001(3). Amends the regulation by specifying the promulgation date of the 40 CFR Part 761 PCB regulations the Department has adopted, in this case the regulations as of July 1, 1989. Also, the Department intends to adopt by reference the December 21, 1989 amendments to the federal regulations. The amendments include requirements for PCB handlers to notify and manifest PCB wastes.

OAR 340-110-080(1) and (2) are proposed for deletion since there is no reason to require PCBs to be reported in both pounds and kilograms. Also, the Department finds no compelling reason to retain OAR 340-110-060(1), since the December 21, 1989 amendments modify the recordkeeping requirements the Department deleted initially.

gc/gjc

REQUEST FOR EQC ACTION

Meeting Date: March 11, 1991
Agenda Item: F
Division: Environmental Cleanup
Section: Site Assessment

SUBJECT:

Proposed Adoption of Rules for Ranking Inventory of Hazardous Substances Sites

PURPOSE:

The proposed rules establish procedures for ranking facilities on the Inventory of hazardous substances sites based on the short- and long-term threats they pose to public health and the environment.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Potential Strategy, Policy, or Rules
 - Agenda Item for Current Meeting
 - Other: (specify)

- Authorize Rulemaking Hearing
- Adopt Rules
 - Proposed Rules
 - Rulemaking Statements
 - Fiscal and Economic Impact Statement
 - Public Notice

Attachment A
Attachment B
Attachment B
Attachment C

- Issue a Contested Case Order
- Approve a Stipulated Order
- Enter an Order
 - Proposed Order

Attachment



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



Meeting Date: March 11, 1991
Agenda Item: F
Page 2

<input type="checkbox"/> Approve Department Recommendation	
<input type="checkbox"/> Variance Request	Attachment <input type="checkbox"/>
<input type="checkbox"/> Exception to Rule	Attachment <input type="checkbox"/>
<input type="checkbox"/> Informational Report	Attachment <input type="checkbox"/>
<input type="checkbox"/> Other: (specify)	Attachment <input type="checkbox"/>

DESCRIPTION OF REQUESTED ACTION:

The Department of Environmental Quality (Department) is requesting adoption of the proposed Inventory ranking rules, OAR 340-122-450 and Appendix A, and amendments to the related Inventory listing rule at OAR 340-122-440. These rules will become part of the Department's environmental cleanup rules.

As part of its environmental cleanup program, the Department maintains an Inventory of facilities with confirmed releases of hazardous substances which require further investigation or cleanup to protect public health, safety, welfare, and the environment. Oregon's Environmental Cleanup Law, ORS 465.410, requires the Environmental Quality Commission (Commission, EQC) to develop a procedure for ranking facilities on the Inventory based on the long- and short-term threats they pose to public health and the environment. The proposed Inventory ranking rules establish this procedure.

- (a) The Inventory ranking rule, proposed OAR 340-122-450, establishes a process for scoring facilities using the Site Scoring Procedure, proposed Appendix A of the rule, and for publishing those scores on the Inventory.

The Site Scoring Procedure establishes criteria for scoring facilities based on risks associated with actual or potential releases of hazardous substances from a facility. It also serves as a users' manual with worksheets and instructions for assigning scores to the factors incorporated in the scoring model and calculating facility scores.

- (b) Proposed amendments to the Inventory listing rule, OAR 340-122-440, establish a procedure for notifying owners and operators and providing an opportunity for them to comment on their facilities' scores as sites are added to the Inventory.

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Agenda Item: F
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AUTHORITY/NEED FOR ACTION:

Required by Statute: ORS 465.410 Attachment
 Enactment Date: June 28, 1989
 Statutory Authority: ORS 465.000(1);465.410; Attachment
 ORS 468.020 Attachment
 Pursuant to Federal Law/Rule: Attachment
 Other: Attachment

Time Constraints:

ORS 465.410 directed the Commission to adopt a procedure for ranking facilities on the Inventory by March 28, 1990. The Department was unable to develop a ranking procedure that met its program needs within that time frame.

DEVELOPMENTAL BACKGROUND:

Advisory Committee Report/Recommendation Attachment
 Hearing Officer's Report/Recommendations Attachment D
 Response to Testimony/Comments Attachment E
 Prior EQC Agenda Items:

Confirmed Release and Inventory: Proposed Adoption of Rule Amendments to Implement HB 3235, Agenda Item T, June 29, 1990 EQC meeting.

Discussion of proposed Inventory ranking rules, Special Work Session, Item 1, October 11, 1990, EQC meeting.

Authorization for Rulemaking Hearing: Ranking Rules for Inventory of Hazardous Substances Sites, Agenda Item C, November 2, 1990 EQC Meeting.

Other Related Reports/Rules/Statutes: Attachment

Modifications to the Site Scoring Procedure Initiated by the Department Attachment F

Supplemental Background Information Attachment G

Environmental Cleanup Advisory Committee Members

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

1. The proposed Inventory ranking rule and amendments to the Inventory listing rule do not impose new requirements or liabilities on the regulated community. However, a facility's ranking on the Inventory may affect public perception of threats or the timing of cleanup by the Department or other persons. To this extent the proposed rules may have fiscal and economic impacts on owners and operators of property contaminated by hazardous substances, as well as neighboring property, and on persons liable for the investigation and cleanup of such property. These persons include public and private entities and small and large businesses. (See Fiscal and Economic Impact Statement, Attachment B.)
2. Six persons commented on the proposed Inventory ranking rules during the public hearing and comment period. The public comments and the Department's responses are summarized in Attachment E. Other changes in the proposed rules are summarized in Attachment F.

The rules proposed for adoption are substantively similar to the rules proposed for public comment. The Department has edited the Site Scoring Procedure, Appendix A of the proposed rules, to clarify terms and scoring approaches, improve readability, and promote consistent scoring of sites. Otherwise only minor changes were made in the scoring procedure.

3. The Environmental Cleanup Advisory Committee (Committee), appointed by the Director, has assisted the Department in developing the proposed rules. The Committee consists of 19 members representing citizens, local governments, environmental organizations, and industry. Attachment G identifies the members. The Department met with the Committee on January 23rd following the public comment period to discuss the comments. The Committee had no additional recommendations regarding changes to the rule.

PROGRAM CONSIDERATIONS:

Several program considerations were identified in the Department's report requesting hearing authorization on the proposed rules. One commenter raised an additional program consideration. The commenter suggested the Department formalize the process for prioritizing sites for further action including use of the information presented in the Special Considerations section of the site scoring worksheets. The Special Considerations section is used to identify any characteristics of a site that are not addressed by the site scoring but suggest that the risks

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associated with the site are higher or lower than is represented by the score.

The Department is not proposing a site prioritization system with this Inventory ranking rule. The Inventory ranking rule provides a procedure for scoring sites to enable the Department to compare relative threats posed by sites on the Inventory. The Department will consider these scores, along with other factors such as cost of cleanup, availability of Department staff, cooperation of responsible parties, and relationship to ongoing remedial actions in prioritizing sites for further action. The Department has concluded that formalizing a scheme for prioritizing these various factors is beyond the scope of this rule and is not required by Oregon's Environmental Cleanup Law. The Department may prioritize these factors later as program needs warrant.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Adopt the Inventory ranking rules as drafted.
2. Submit an alternative ranking procedure (e.g., a simplified screening model or more complex model such as the proposed federal Hazard Ranking System).

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends the Commission adopt the Inventory ranking rules as drafted, Alternative 1.

The proposed Inventory ranking rules satisfy the requirements of ORS 465.410. The rules establish a consistent, reproducible, and defensible system for comparing short- and long-term risks facilities pose to public health and the environment. The ranking procedure provides the information the Department needs to help prioritize sites for further action at the conclusion of pre-remedial site assessments. The comparison of relative threats will also inform the public. In addition, the Environmental Cleanup Advisory Committee and the public comments support the proposed approach.

The Department rejected Alternative 2, recommendation of a different ranking approach. The Department evaluated several hazard ranking systems to identify methods that would meet the ranking objectives for Oregon. The proposed ranking rules incorporate procedures that have worked in comparable listing and ranking processes. Of the models reviewed, the proposed approach most appropriately discriminates among sites based on public health and environmental threats using data, normally developed during preliminary site assessments.

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CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE
POLICY:

The proposed new rules are required by statute, and are consistent with the Agency's strategic plan and policies to implement Chapter 465, Oregon Revised Statutes, 1989.

ISSUES FOR COMMISSION TO RESOLVE:

Should the Inventory ranking rules and related amendments to the Inventory listing rule be adopted as proposed?

INTENDED FOLLOWUP ACTIONS:

1. Submit the final rule for publication in the Secretary of State's Bulletin.
2. Implement the Inventory ranking rule after rule adoption.

Approved:

Section: Joretta Pickersel
Division: Michael Houns
Director: Jell Houn

Report Prepared By: Debbie Bailey

Phone: 229-6811

Date Prepared: February 6, 1991

Inventory Ranking Rule

Inventory Ranking

340-122-450(1)(a) The Department will score facilities placed on the Inventory in accordance with the Site Scoring Procedure set forth in Appendix A of these rules. The Site Scoring Procedure provides criteria for scoring facilities based on the short-term and long-term risks they pose to present and future public health, safety, welfare or the environment.

(1)(b) The Department will place facilities in the following categories on the Inventory based on their status in the remedial process:

- Phase I: Facilities where remedial investigation and feasibility studies have not been initiated.
- Phase II: Facilities where remedial investigation or feasibility studies are underway.
- Phase III: Facilities where the remedial investigation and feasibility studies have been completed and remedial design, removal or remedial action is underway.
- Phase IV: Facilities where all necessary removal and remedial action have been completed except for continuing operation and maintenance or other environmental or institutional controls necessary to protect public health, safety, welfare, and the environment.

The Department will move facilities from one category to the next in quarterly updates of the Inventory as remedial activities progress.

- (2) Prior to publishing a facility's score on the Inventory, the Department will notify the owners and operators of the facility, if known, and provide an opportunity for them to comment on the facility score and supporting documentation as described in OAR 340-122-440(4).
- (3) The Department will consider facility scores, among other factors, in prioritizing sites for further investigation, removal, or remedial action at the conclusion of the preliminary assessment or its equivalent. Prior to initiating such action, the Department may rescore a facility if the Department receives additional information that may significantly change a facility's score.

Draft Amendments to Inventory Listing Rule

Development of Inventory

340-122-440(3)(a) At least sixty (60) days before a facility is added to the Inventory the Director shall notify the owner and operator, if known, of all or any part of the [proposed] facility of the proposed listing by certified mail or personal service. The notice shall include a copy of the preliminary assessment [, and] on which the listing is based, and the documentation used to calculate a site score in accordance with OAR 340-122-450(1)(a). The notice may reference these documents if they have been previously provided. The notice shall inform the owner and operator of the opportunity to comment on the information contained in the preliminary assessment and on the proposed site score within forty-five (45) days after receiving the notice. For good cause shown, the Department may grant an extension of up to forty-five (45) days for comment.

DRAFT

APPENDIX A
OF
INVENTORY RANKING RULE:
SITE SCORING PROCEDURE

March 1991

Oregon Department of Environmental Quality
811 S. W. Sixth Avenue
Portland, OR 97204

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ACKNOWLEDGEMENTS

The Department of Environmental Quality (DEQ) thanks the Environmental Cleanup Division Advisory Committee for its assistance in the preparation of the Inventory Ranking Rule (IRR). The Committee reviewed and advised DEQ throughout the IRR development process.

DEQ also thanks the Washington Department of Ecology, Parametrix, Inc., and Science Applications International Corporation for assisting DEQ in modifying the Washington Ranking Method (WARM) to develop the Site Scoring Procedure for Oregon's program.

INTRODUCTION

Sites contaminated with hazardous substances pose measurable risks to human and environmental health. Under state law, the Oregon State Department of Environmental Quality (DEQ) is required to list and rank these sites on an Inventory of Hazardous Substances Sites (Oregon Revised Statute [ORS] 465.215 and ORS 465.410). To meet this ranking requirement, DEQ has prepared the Inventory Ranking Rule (Oregon Administrative Rule [OAR] 340-122-450), which includes as its major component a Site Scoring Procedure.

This manual presents the Site Scoring Procedure. It features forms and instructions for assigning scores to the hazardous substance factors considered for site scoring. Although designed as a users' manual for DEQ staff, the manual may be used by anyone interested in evaluating the relative threats to human health and the environment from actual or potential hazardous substance releases in Oregon. Or it may be used by anyone interested in reviewing DEQ's scoring.

Specifically, the Site Scoring Procedure examines risks from an actual or potential hazardous substance release into four pathways: surface water, air, ground water and direct contact. In the surface water and air pathways the risks are examined for both human and environmental targets while only the risks to human targets are examined for the ground water and direct contact pathways. Thus, six combinations of pathways and targets, termed "routes", are evaluated in the Site Scoring Procedure:

1. Surface water - human targets
2. Surface water - environmental targets
3. Air - human targets
4. Air - environmental targets
5. Ground water - human targets
6. Direct contact - human targets

Scorers use information gathered during a preliminary assessment or equivalent site investigation to score sites. A preliminary assessment is the investigation done to determine if additional investigation or cleanup are needed to protect the public and the environment (OAR 340-122-426).

The information collected during the preliminary assessment serves three purposes:

- To identify the hazardous substances present in hazardous substance release areas and in the environment

- To determine the potential pathways (surface water, air, ground water and direct contact) through which potential human and environmental targets might be exposed to hazardous substances
- To evaluate the potential human and environmental targets present near a site

Scorers compile this information systematically by following the manual's scoring instructions for assigning numerical scores to site data. The scores assigned to the data are combined, using mathematical equations, into nine scores for each hazardous substance site:

- Six route scores (four human health and two environmental)
- Three site scores (human health, environmental, and overall site scores).

A route score is a mathematical analysis of the scores assigned to the data collected for a specific route. When compared to the score for the same route at another site, the route score provides information on the relative risk across sites for the specific route, for instance the surface water-human health route.

A site score is an analysis of a specific combination of route scores. (For example, the four human health route scores are combined to generate the human health site score). All nine scores are calculated using equations described in Chapter 7. At this point, the Site Scoring Procedure is complete.

The overall site score generated for each site by the Site Scoring Procedure is used to rank sites on the Inventory. The maximum overall site score is 100. The higher the score the greater the potential risk a site poses. However, the closer the scores are to each other the less certain is the relative risk analysis. For example, a site with a score of 80 has a higher potential risk than a site with 20. The Site Scoring Procedure is not, however, sensitive enough to permit the conclusion that a site with a score of 51 has a higher potential risk than a site with a score of 50.

DEQ will place sites on the Inventory based on their site scores and current phase in the remedial process (Figure 1).

Phase I - all sites pending initiation of the RI/FS

Phase II - sites where the RI/FS is underway

Phase III - sites where the RI/FS is completed and remedial design, removal, or remedial action are underway

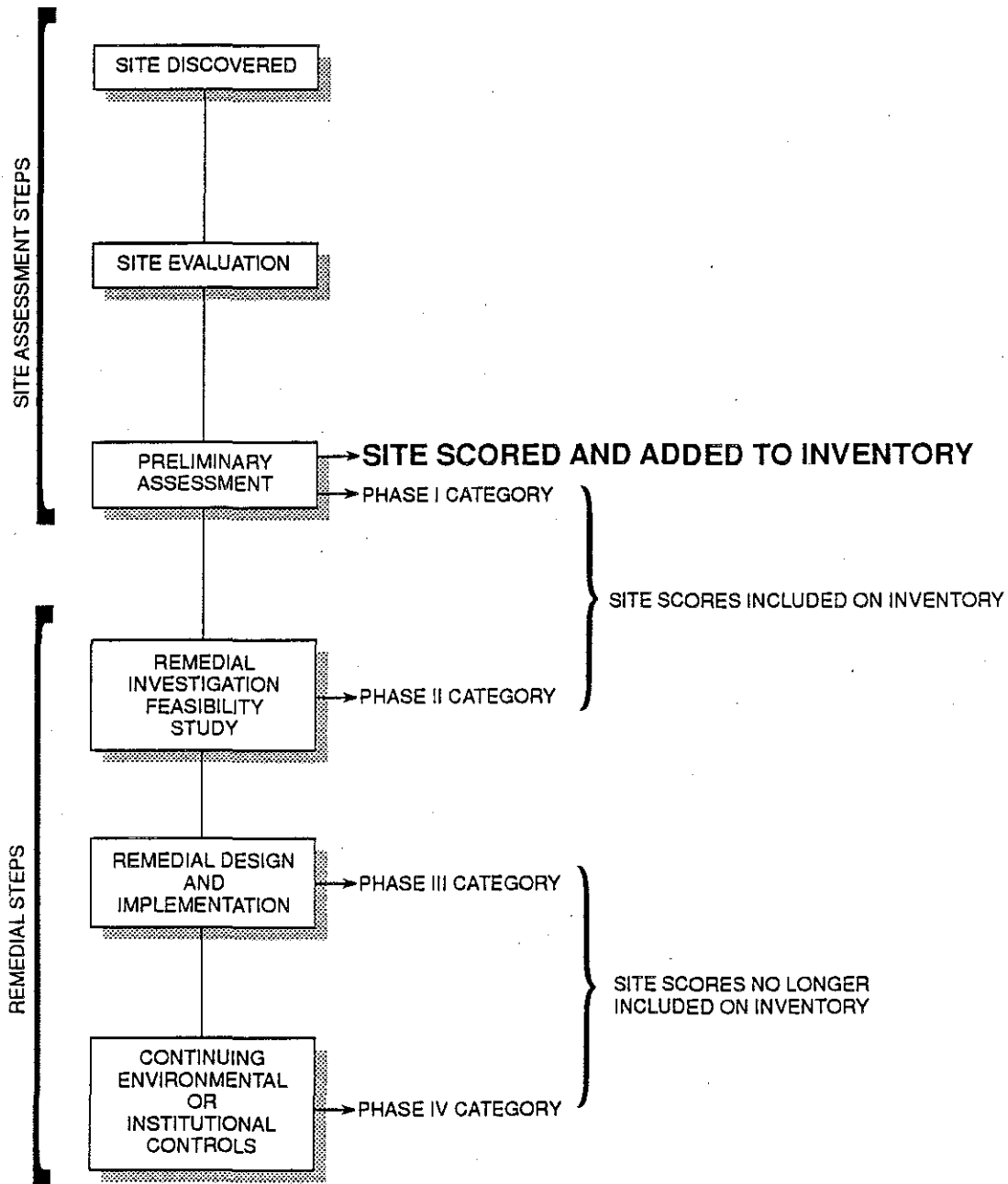


Figure 1.
DEQ's Hazardous Substance
Sites Cleanup Process

Phase IV - sites where cleanup has been completed except for continuing operation and maintenance or other environmental or institutional controls needed to protect public health and the environment.

When cleanup is completed, sites will be removed from the Inventory. Sites requiring continuing environmental or institutional controls to protect public health and the environment must remain on the Inventory.

Sites in Phases I and II will be listed on the Inventory with their overall site score generated from the Site Scoring Procedure. Sites in Phases III and IV will be listed without the site scores. Scores will not be used to give priority for action at these later stages in the remedial process and will not reflect new information or changes in site conditions.

GLOSSARY

aquifer: A saturated layer of high permeability materials large enough to store and transmit a significant quantity of ground water. See ground water.

container: Any portable vessel used to contain hazardous substances (for example, lab chemical containers, drums, or fuel pumps.)

data element: One specific type of data included in the set of data used in the Site Scoring Procedure. The data collected for each data element are assigned a score. The scores for all the data elements in a route are combined into module scores which are then combined to generate a score for each route evaluated in the Site Scoring Procedure.

DEQ: The Oregon Department of Environmental Quality.

detection limit: The lower limit of concentration of a compound that may be identified by an analytical method. Compounds are reported as present with estimated concentrations if identified at or above this limit but below the quantification limit.

exposure route: The specific path a hazardous substance takes to enter a target. Three exposure routes are included in the Site Scoring Procedure: oral, inhalation and dermal contact. The term "exposure route" is reserved for use in conjunction with the toxicology data elements and thus represents a portion of a "route." See route.

facility: An area or site including one or more hazardous substance release areas.

food crop: Any domestic plant produced or used in whole or in part for consumption by people or livestock. This includes nursery, root, or feedstock used to produce food crops.

geomembrane: A flexible membrane liner generally made of plastic such as high density polyethylene (HDPE), polyvinyl chloride (PVC), hypalon, or other impervious synthetic material.

ground water: Any water, except capillary moisture, beneath the land surface or beneath the bed of any stream, lake, reservoir or other body of surface water within the boundaries of the state, whatever may be the geological formation or structure in which such water stands, flows, percolates, or otherwise moves [ORS 537.515(4)].

hazardous substance: As defined by ORS 465.200(9), a hazardous substance is:

- (a) Hazardous waste as defined in ORS 466.005.
- (b) Any substance defined as a hazardous substance pursuant to section 101(14)

of the federal Comprehensive Environmental Response, Compensation and Liability Act. P.L. 96-510, as amended, P.L. 96-510 and P.L. 99-499.

- (c) Oil.
- (d) Any substance designated by the commission under ORS 465.400.

Hazardous Substance Release Areas: Any building, structure, installation, equipment, pipe or pipeline including any pipe into a sewer or publicly owned treatment works, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, above-ground tank, underground storage tank, motor vehicle, rolling stock, aircraft, or any site or area where a hazardous substance has been deposited, stored, disposed of, or placed or otherwise come to be located and where a release has occurred or where there is a threat of a release, but does not include any consumer product in consumer use or any vessel.

Inventory: The Inventory of Hazardous Substances Sites. The Oregon Department of Environmental Quality's list of facilities where releases of hazardous substances have been confirmed and where further investigation or cleanup to protect public health, safety, welfare and the environment is required.

Inventory Ranking Rule: The regulation implementing Oregon state law requiring the Oregon Department of Environmental Quality to rank sites on the Inventory of Hazardous Substances Sites based on their threat to human health and the environment.

liner: An engineered barrier layer intended to limit the flow of liquid, and composed of either compacted, low permeable soil or a synthetic membrane. A "single" liner consists of one liner "system." A liner "system" is composed of one of the following: a single synthetic membrane, a single soil barrier layer, or a combination synthetic membrane/soil barrier layer. A "double" liner consists of two-liner "systems" separated by a layer of drainage material.

module: A category of data. Four data categories or modules are used in the Site Scoring Procedure: source characteristics, migration potential, targets, and release data.

pathway: The means by which or the medium in which a hazardous substance can migrate to a target or receptor. Four pathways are used in the Site Scoring Procedure: surface water, air, ground water, and direct contact. Those pathways are combined with one of two kinds of receptors (humans or the environment) to create the six routes used in the Site Scoring Procedure.

Permitted or Authorized Release: A hazardous substance release that is from an active facility and that is subject to and in substantial compliance with a current and legally enforceable permit issued by the Oregon Department of Environmental Quality (DEQ), the United States Environmental Protection Agency, or the Lane Regional Air Pollution Authority; is in conformance with DEQ rules or a control regulation in a State Implementation Plan; or is otherwise in conformance with the provisions of a State

Implementation Plan [OAR 340-122-420(9)]. The deposition, accumulation, or migration of substances resulting from an otherwise-permitted or authorized release is not a "permitted or authorized release" for scoring purposes. [OAR 340-122-427(2)]

Preliminary Assessment (PA): An investigation conducted in accordance with OAR 340-122-426 for the purpose of determining whether additional investigation, removal, remedial action, or related long-term environmental or institutional controls are needed to assure protection of present and future public health, safety, welfare, and the environment [OAR 340-122-420(10)].

Primary Water Right: The first or initial appropriation of water for an approved use (OAR 690-11-22).

quantification (or reporting) limit: The lowest score that can be reliably reported as the concentration of a compound detected by an analytical method.

receptor: See target.

Release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment. Releases include the abandonment or discarding of barrels, containers and other closed receptacles containing a hazardous substance, or threat thereof. Releases exclude the following:

- (a) Any releases which result in exposure to a person solely within a workplace, with respect to a claim that the person may assert against the person's employer under ORS chapter 656;
- (b) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine;
- (c) Any release of source, by-product or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, as amended, if such release is subject to requirements with respect to final protection established by the Nuclear Regulatory Commission under section 170 of the Atomic Energy Act of 1954, as amended, or, for the purposes of ORS 465.260 or any other removal or remedial action, any release of source by-product or special nuclear material from any processing site designated under section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978; and
- (d) The normal application of fertilizer.

route: The path a hazardous substance takes from the source to one of two targets: humans or the environment. Both targets are considered in the surface water and air pathways. Only the human targets are considered in the ground water and direct contact pathways. These combinations of pathways and targets create the six routes used in the Site Scoring Procedure. "Exposure route" is the term reserved for the final step in the route representing the path the hazardous substance takes to actually enter the target. See exposure route.

sensitive environment: An area of particular environmental value, where a release could pose a greater threat than in other non-sensitive areas. Sensitive environments include:

- Critical habitat for federally designated endangered or threatened species
- National Park, Monument, National Marine Sanctuary, National Recreation Area, National Wildlife Refuge, National Forest (campgrounds, recreation areas, game management areas, wildlife management areas)
- Designated Federal Wilderness Area
- Wetlands (freshwater, estuarine, or coastal - 5-acre minimum)
- Wild and Scenic Rivers
- State Parks
- State Wildlife Refuges
- Habitat designated for State endangered species
- Fishery resources
- State designated natural areas
- County or municipal parks

site: See facility.

Site Scoring Procedure: The Oregon Department of Environmental Quality's method for evaluating quantitatively the relative threats to human health and the environment from actual or potential hazardous substances releases in Oregon.

Supplemental Water Right: An additional appropriation of water to make up any deficiency in supply from the primary right (OAR 690-11-31).

surface water: Lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creek, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies, 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 waters), which are wholly or partially within or bordering the state or within its jurisdiction [ORS 468.700(8)]. Intermittent streams and playa or seasonal lakes are defined as surface water for the purposes of this rule.

tank: Any stationary vessel constructed of non-earthen materials used to contain hazardous substances.

target: An individual or sensitive environment that may be exposed to a hazardous substance.

vapor recovery system: An engineered system of gas extraction, collection, or venting of vapors from a hazardous substance release area. This includes "active" and "passive" landfill gas collection systems.

vapor treatment system: A system that serves to purify vapors collected by a vapor-recovery system.

water table: See ground water.

1. INTRODUCTION TO SITE SCORING PROCEDURE

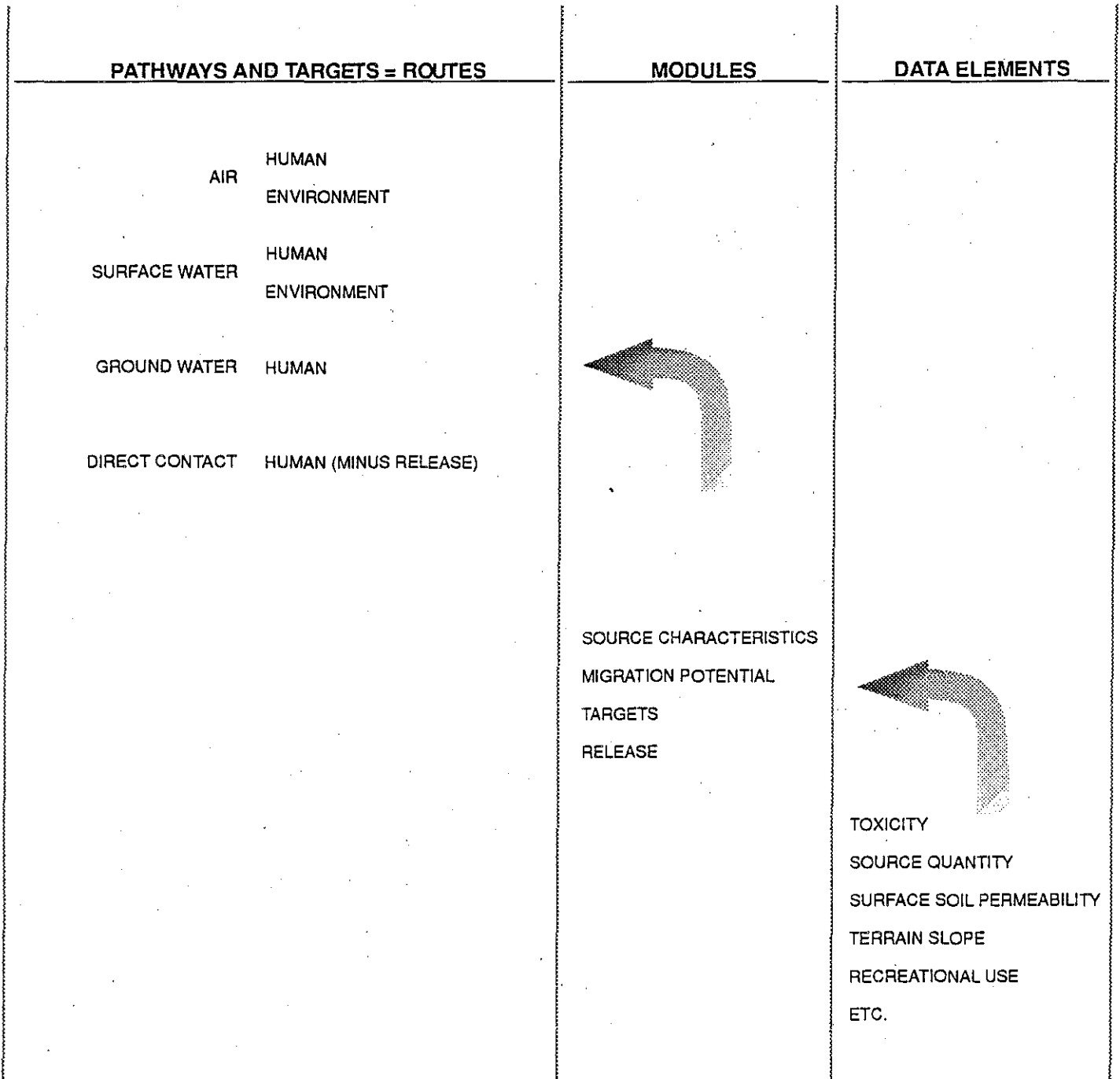
Sites with confirmed releases of hazardous substances and that require further investigation or cleanup are placed on the Inventory along with the scores they receive from the Site Scoring Procedure. The procedure follows a hierarchy of scoring components (Figure 1-1). These components—routes, modules, and data elements—were developed specifically for the Site Scoring Procedure (Table 1-1). They are organized from general to specific as follows:

- **Routes.** A route is the path a hazardous substance takes from its source to one of two targets: humans or the environment. The routes follow the four basic environmental pathways of surface water, air, ground water, and direct contact to the targets. The Site Scoring Procedure combines these pathways and targets into six routes:
 1. Surface water - human
 2. Surface water - environmental
 3. Air - human
 4. Air - environmental
 5. Ground water - human
 6. Direct contact - human

The Site Scoring Procedure does not contain environmental routes for either the ground water or direct contact pathways. Ground water is unlikely to reach the environmental (nonhuman) targets identified in the Site Scoring Procedure. They would be affected primarily by contaminated ground water reaching either the surface water or air.

Scoring the direct contact impact on sensitive environments is also not evaluated as an route. Instead, bonus points are added to the appropriate site scores for this threat.

- **Modules.** Each route contains four modules or categories of data: Source Characteristics, Migration Potential, Targets, and Release data. The Source Characteristics module includes data on the hazardous substance release areas, the hazardous substances of concern, and the quantity of hazardous materials present on a site. The Migration Potential module contains data on the potential for hazardous substances on a site to move from the source to the receptors or targets. The Targets module features data on the human and environmental targets present within a certain distance of the site as well as other data indicating any potential targets. Release module data show evidence of any hazardous substance releases to surface water, air, or ground water.



**Figure 1-1.
Site Scoring
Procedure Structure**

Table 1-1. Data elements contributing to each route score in the Site Scoring Procedure.

Module	Air		Surface Water		Ground Water	Direct Contact
	Human Health	Environmental	Human Health	Environmental	Human Health	Environmental
1. Source Characteristics	Human Toxicity	Environmental Toxicity	Human Toxicity	Environmental Toxicity	Human Toxicity	Toxicity
	Source Quantity	Source Quantity	Source Quantity	Source Quantity	Source Quantity	Source Quantity
	Containment	Containment	Containment	Containment	Containment	
2. Migration Potential	Mobility	Mobility	Surface Soil Permeability	Surface Soil Permeability	Mobility	Accessibility
			2-yr, 24-hr Rainfall	2-yr, 24-hr Rainfall	Net Precipitation	
			Flood Plain	Flood Plain	Subsurface Hydraulic Conductivity	
			Terrain Slope	Terrain Slope	Vertical Depth to Aquifer	
3. Targets	Nearest Population	Nearest Sensitive Environment	Distance to Surface Water	Distance to Surface Water	Aquifer Usage	Residences
	Population within 1/2 mile		Population Served by Intakes	Distance to Nearest Fish Resource	Distance to Nearest Drinking Water Well	Other structures or activities
	Predominant Land Use		Acres irrigated by Surface Water Intakes within 2 miles	Distance to Nearest Sensitive Environment	Population Served by Wells	
			Recreational Use		Area Irrigated by Wells	
4. Release	Evidence	Evidence	Evidence	Evidence	Evidence	

- **Data Elements.** Each module contains a series of data elements (see Table 1-1). These data elements are the basic building blocks used in the Site Scoring Procedure. From them, route scores are calculated. All the data elements used in the Site Scoring Procedure are shown in Table 1-1.

The scoring process works this way. Each data element is assigned a score. All the data element scores are organized into modules and put into the route equations to generate route scores. The route scores are then combined to calculate site scores. The equations used to generate route and site scores are described in Chapter 7.

To guide the scoring process, the scorer uses eight worksheets. On Worksheet 1, the scorer describes the site. Worksheet 2 documents source quantity and containment calculations. Worksheet 3 assists the scorer in determining those substances and hazardous substance release areas to score at sites with multiple release areas. Worksheets 4, 5, 6, and 7 are specifically for scoring the Surface Water, Air, Ground Water, and Direct Contact pathways respectively. On these sheets, the scorer lists information for each data element, its source, and the score given that element. The data sources (references) used in scoring are listed on Worksheet 8. A summary worksheet is provided for the final route and site scores and for listing any special considerations not addressed by the Site Scoring Procedure.

The modules (data categories) included in each of the six routes and the data elements within each module are described in the following sections.

1.1 SOURCE CHARACTERISTICS MODULE

The Source Characteristics module identifies the risk characteristics of the hazardous substances present at the site: their toxicity, containment, and quantity. Using toxicological data, this module evaluates the inherent risk posed by a hazardous substance. It estimates the quantity of materials contaminated with hazardous substances present over an entire site, and evaluates how well those hazardous substances are contained on the site. Six steps are included in the Source Characteristics module evaluation for each route:

- **Step 1** - Identify the hazardous substance release areas at the site
- **Step 2** - Identify the hazardous substances present in each of the hazardous substance release areas
- **Step 3** - Determine the human health toxicity score for each hazardous substance and choose the hazardous substance with the highest toxicity score
- **Step 4** - Determine the environmental toxicity score for each hazardous substance and choose the hazardous substance with the highest toxicity score

- **Step 5** - Evaluate the method of containment for each hazardous substance release area
- **Step 6** - Estimate the quantity of contaminated material in each hazardous substance release area.

These steps are further discussed below.

1.1.1 Identifying Hazardous Substance Release Areas

Identifying hazardous substance release areas is the first step in site scoring. These areas are those locations on a site where a hazardous substance release has been verified or a threat of release exists. The information in the preliminary assessment (PA) or site files is generally used to locate hazardous substance release areas. If the PA data are incomplete, site files are the best source for this information. Site files include DEQ files as well as those of other agencies, owners and operators.

From such information, the following hazardous substance release areas may be evaluated:

- **Disposal**
 - Drain Fields
 - Dry Wells
 - Landfills
 - Surface impoundments
 - Waste piles
- **Storage and/or treatment**
 - Containers (drums, tank trucks, and other portable storage units)
 - Stock piles, outdoor storage areas, waste piles
 - Surface impoundments
 - Tanks
- **Spills or releases**
 - Contaminated soil, ground water, or surface water due to spillage or leakage from an unidentified or removed source
 - Spills or releases to any environmental medium from process or operating areas
 - Spills to soil or surface water

- Unpermitted and unauthorized discharges to soil, ground water, surface water, or air

For each hazardous substance release area at a site, the scorer identifies the hazardous substances present. In addition, the quantity of those substances or materials are either determined or estimated as accurately as possible.

The total quantity of material contaminated with hazardous substances used for scoring, termed source quantity, is derived for each route by summing the quantities for all release areas of concern to that route. Any containment is characterized based on observations made during the PA or on file information. Examples of containment are the presence and type of liners, any secondary containment (for example, a double liner system), and automatic volume controls.

1.1.2 Identifying Substances of Concern

The scorer must identify the hazardous substances in each hazardous substance release area. That information should be available in the PA. However, if it is not, the scorer must complete the identification preferably using direct information. When direct information is unavailable or insufficient, indirect information should be used to develop a complete hazardous substance list. The following are examples of direct and indirect information:

Direct Information.

Environmental monitoring data: Identification of hazardous substances in soil, air, surface water, and ground water based on environmental monitoring data.

Waste analyses: Identification of the chemical composition of site wastes determined through chemical analyses of the wastes.

Indirect Information:

Hazardous substance identification: Identification of wastes or substances at the site as hazardous based on the Material Safety Data Sheets or other documentation. (For example, degreasing solvent might be identified as trichloroethene.)

Process knowledge or process control information: Identification of hazardous substances based on data from process information. For example, an electroplater generates a wastewater treatment sludge during wastewater treatment operations. Based on knowledge of the site processes and discharge limitations for its wastewater treatment system, chromium, cadmium, zinc, and cyanide might be identified as hazardous substances present in the wastewater treatment sludges.

Waste characterization: Identification of hazardous substances based on data on site activities and characterization of waste streams done for each industry. For example, spent potliners from a specific primary aluminum production process are known to contain cyanides, polynuclear aromatic hydrocarbons, and fluoride.

1.1.3 Human Toxicity Data Element

Human toxicity data are used to evaluate the toxicological effects of exposure through three exposure routes: oral (ingestion), inhalation, and dermal contact. The surface water, ground water and direct contact human health routes considers oral toxicity. The air human health route considers inhalation toxicity. The direct contact route, in addition to considering oral toxicity considers the effects from absorption through the skin.

The human toxicity data used in the Site Scoring Procedure come from five types of toxicity measurements:

- Acute
- Chronic
- Carcinogenicity factors including EPA Weight of Evidence Class•
- Developmental and reproductive
- Dermal contact.

Any substance used to score toxicity may have data on none to all five of these measurements. The source of information for toxicity is the Oregon Hazardous Substance Database. For each hazardous substance, the database gives a single score between 1 and 14 based on these measurements.

Although the scorer will obtain the toxicity scores from the Oregon Hazardous Substances Database, the following describes the methods incorporated into the Database. The methods for deriving toxicity scores are shown in Tables 1-2, 1-3, 1-4, and 1-5. First, the acute, chronic, and carcinogenicity toxicological data for each substance are collected for the oral and inhalation human health exposure routes. These data are then fit into the ranges presented on Tables 1-2, 1-3, and 1-4 and a toxicity category (high, medium, or low) is assigned to each substance for both exposure routes. If data are not available for a substance, default scores of medium are used for chronic and acute toxicity, and a default score of low is used for carcinogenicity.

Table 1-2. Ranges and toxicity categories for oral and inhalation chronic toxicity.

Oral or Inhalation Reference Dose Range (mg/kg per day)	Toxicity Category
$\leq 1 \times 10^{-3}$	High
$> 1 \times 10^{-3} - 1 \times 10^{-1}$ or no data	Medium
$> 1 \times 10^{-1}$	Low

Table 1-3. Ranges and toxicity categories for oral and inhalation acute toxicity.

Oral Rat/Mouse ^a LD ₅₀ or LD _{Lo} (mg/kg)	Inhalation Rat/Mouse ^b LC ₅₀ or LC _{Lo} (mg/kg)	Toxicity Category
≤ 500	≤ 500	High
$> 500 - 2,500$ or no data	$> 500 - 2,500$ or no data	Medium
$> 2,500$	$> 2,500$	Low

^a LD₅₀ - Median Lethal Dose (used if available)
 LD_{Lo} - Lowest Lethal Dose (used if LD₅₀ is not available)

^b LC₅₀ - Median Lethal Concentration
 LC_{Lo} - Lowest Lethal Concentration

Table 1-4. Ranges and toxicity categories for oral and inhalation carcinogenicity.

Oral or Inhalation Slope Factor (mg/kg per day) ⁻¹	Toxicity Category
> 5	High
$> 0.01 - 5$	Medium
≤ 0.01 or no data	Low

The three categories (high, medium, and low) are then combined for both exposure routes (oral and inhalation) to provide a single initial toxicity score for each hazardous substance for each exposure route using Table 1-5.

Table 1-5. Toxicity scoring combinations and scores for combined oral or inhalation chronic, acute and carcinogenic toxicity categories.

Toxicity Category Combination	Initial Toxicity Score
High\High\High	10
High\High\Medium	10
High\High\Low	9
High\Medium\Medium	9
High\Medium\Low	8
High\Low\Low	8
Medium\Medium\Medium	7
Medium\Medium\Low	5
Medium\Low\Low	3
Low\Low\Low	1

Each substance now has an initial oral and inhalation toxicity score (maximum of 10). The initial oral toxicity score is used as the primary component in determining the human health toxicity score for each route in the surface water, ground water, and direct contact human health routes. The initial inhalation toxicity score is used as the basis for the human health toxicity score in the air human health route.

Bonus points are added to the initial toxicity score for each substance in a route if the substance exhibits certain characteristics. The data reviewed for the bonus points analysis include EPA Weight of Evidence Class for carcinogenicity, human developmental and reproductive toxicity, and likelihood of absorption through the skin. Bonus points are added to the initial toxicity scores using the following approach for each route:

Bonus points added to the initial oral toxicity score for substances in the surface water, ground water and direct contact routes:

- +2 points: EPA Weight of Evidence Class A oral carcinogen
- +1 point: EPA Weight of Evidence Class B1 or B2 oral carcinogen
- 1 point: EPA Weight of Evidence of noncarcinogenicity

Bonus points added to the initial inhalation toxicity score for the air route:

- +2 points: EPA Weight of Evidence Class A inhalation carcinogen
- +1 point: EPA Weight of Evidence Class B1 or B2 inhalation carcinogen
- 1 point: EPA Weight of Evidence of noncarcinogenicity

Bonus points also added to the initial oral and inhalation toxicity scores for the surface water, air and ground water routes:

- +2 points: Human developmental and reproductive toxicant

Bonus points also added to the initial oral toxicity score for the direct contact route:

- +1 point: Human developmental and reproductive toxicant
- +1 point: Chemicals likely to be absorbed via the skin (ACGIH 1991).

The bonus points and initial toxicity scores are summed. Three final toxicity scores are provided for each hazardous substance: oral toxicity (used in the surface water and ground water routes), inhalation toxicity (used in the air route), and direct contact toxicity (used in the direct contact route).

The highest toxicity score for any hazardous substance is 14 points. A scoring example for one hazardous substance (Substance X) is provided in Table 1-6. The scorer obtains the oral, inhalation, and direct contact toxicity scores from the Oregon Hazardous Substance Database for all hazardous substances of concern at the site.

The scorer assigns an additional bonus point if three or more hazardous substances at a site listed as of concern for each route have toxicity scores greater than 10. The highest toxicity score for any site is 15.

Table 1-6. Scoring example illustrating the toxicity score determination for Substance X.

<u>Chronic Toxicity</u>	<u>Data</u>	<u>Toxicity Category From Table 1-2</u>
Oral RfD	.0005 mg/kg per day	High
Inhalation RfD	.0005 mg/kg per day	High
<u>Acute Toxicity</u>	<u>Data</u>	<u>Toxicity Category From Table 1-3</u>
LD ₅₀	3,000 mg/kg	Low
LC ₅₀	450 mg/kg	High
<u>Carcinogenicity</u>	<u>Data</u>	<u>Toxicity Category From Table 1-4</u>
Oral Slope Factor	1 (mg/kg per day) ⁻¹	Medium
Inhalation Slope Factor	6 (mg/kg per day) ⁻¹	High

Other Data

B1 Carcinogen
 Not a developmental and reproductive toxicant
 Likely to be absorbed through the skin

Initial Toxicity Score Determination (From Table 1-5)

	<u>Chronic</u>	<u>Acute</u>	<u>Carcinogenicity</u>	<u>Initial Toxicity Score</u>
Oral	High	Low	Medium	8
Inhalation	High	High	High	10

Calculation of Oral Toxicity Score (ground water and surface water human health routes):

Initial Oral Toxicity Score	8
B1 Carcinogen	1
Developmental and Reproductive Toxicant	<u>0</u>
Final Oral Toxicity Score	9

Calculation of Inhalation Toxicity Score (air human health route):

Initial Inhalation Toxicity Score	10
B1 Carcinogen	1
Developmental and Reproductive Toxicant	<u>0</u>
Final Inhalation Toxicity Score	11

Calculation of Direct Contact Toxicity Score (direct contact human health route):

Initial Oral Toxicity Score	8
B1 Carcinogen	1
Developmental and Reproductive Toxicant	0
Likely to be absorbed via skin	<u>1</u>
Final Direct Contact Toxicity Score	10

1.1.4 Environmental Toxicity Data Element

If toxicity data are available for environmental toxicity, the scorer can obtain the toxicity score from the Oregon Hazardous Substance Database. The method used to derive the scores provided by the Database are described below:

Air route environmental toxicity scores: Nonhuman mammalian acute inhalation lethal concentration (LC_{LO} and LC_{50}) data are used to assign the scores. From the acute inhalation values in Table 1-7, the scorer obtains a score for each hazardous substance.

Table 1-7. Air route environmental toxicity scores.

Acute Toxicity	Acute Inhalation	
	LC_{50} or LC_{LO} (mg/m^3)	Inhalation Score
Very high	$\leq 10^2$	15
High	$> 10^2 - 10^3$	12
Medium	$> 10^3 - 10^4$	9
Low	$> 10^4 - 10^5$	6
Very low (simple asphyxiant)	$> 10^5$	3

Surface water environmental toxicity scores: Acute water quality criteria for the protection of aquatic life or median lethal concentration (LC₅₀) data are used to score surface water environmental toxicity. If water quality criteria have been established, the score is assigned using that data. If criteria have not been established, acute toxicity water concentration data are used. The scorer then gives an environmental toxicity score for surface water to each hazardous substance (Table 1-8).

Table 1-8. Surface water route environmental toxicity scores.

Toxicity	Acute Criteria for Protection of Aquatic Life OR Median Lethal Concentration (LC ₅₀) (µg/l)	Score
Very High	≤ 1.0	15
High	> 1.0-100	12
Medium	> 100-2,000	9
Low	> 2,000-10,000	6
Very Low	> 10,000	3

1.1.5 Containment Data Element

The containment data element evaluates the methods used to contain hazardous substances on site. The scorer scores containment conditions as they exist during the PA (or equivalent), including any mitigating measures already implemented. In this way, a realistic assessment is made of the potential for substances to continue to migrate from the site.

For the surface water, air, and ground water pathways, the scorer must consider containment measures for all hazardous substance release areas on the site:

- Above-ground Containers and Tanks
- Spills, Discharges, and Contaminated Soil
- Landfills
- Surface Impoundments
- Waste Piles

To create a score for containment data, the scoring instructions question the scorer regarding each of these potential release areas. Those instructions address situations in which containment is unknown for a given release area. For instance, whether or not a landfill is lined may be unknown. Unusual situations, such as dry wells and septic drainfield discharges, are also addressed.

Containment data in the air pathway also evaluate the potential migration of both gaseous and particulate substances. For substances identified in the Source Characteristics module of the route, the scorer may score containment based on either of these transport mechanisms.

Sites with multiple hazardous substance release areas may be further evaluated to determine which release area to use in assigning the containment score for each route. Further evaluation is needed if the site contains wastes with differing toxicity and mobility scores and the area with the poorest containment does not contain the substance with the highest toxicity/mobility product. In such a case, the scorer must determine which release area has the highest toxicity/containment product for each route and use that release area for the containment score for each route. A release area with good containment but high toxicity is unlikely to score higher than a less-toxic but poorly contained area. If this analysis is performed, it is possible that the containment score used in scoring for the air-human health route or the surface water-human health route may be different from the containment score used for the air-environmental or surface water-environmental routes.

Containment data are not included in the direct contact-human health route. That route is scored only if hazardous substances are available on site for direct contact through soil ingestion or skin contact. If not, the direct contact route score is zero. Thus, containment is addressed before data elements are scored.

1.1.6 Source Quantity Data Element

Quantity calculations depend on the route being evaluated. If source quantity information is not adequate in the PA, the scorer estimates the total source quantity for each route by the following:

- Reading through the site file
- Determining how substances are contained on site
- Determining which hazardous substance release areas are of concern for the route
- Summing the release area quantities, and assigning a score to the total quantity of hazardous materials for each pathway.

The quantity can be estimated using best professional judgement in three ways depending on the available site data. First, if the actual quantity of hazardous substances(s) is known, that quantity should be used for scoring. Typically, the specific quantity of hazardous substances in complex mixtures cannot be calculated from PA data. Thus, if a tank of petroleum is spilled on the ground, the total volume of petroleum in the tank is counted, rather than the quantity of benzene, toluene, xylene, and lead present. If different types of waste using different source quantity measurements are present at a site, they are combined using the conversion assumptions provided (see Tables 3-1, 4-1, and 5-1). For example, gallons of one type of waste can be combined with cubic yards of another type of waste by converting to a common unit of measurement.

Second, if the hazardous substance release area involves contaminated soil and the quantity spilled or released is not known, the source quantity score is based on the quantity of contaminated soil known or estimated from a score-assignment table developed for each pathway (see Tables 3-2, 4-2, and 5-2).

Third, where little or no information on source quantity is available in the site file, the scorer estimates source quantity, records the basis for that judgement on the scoring sheet, and uses the estimate for scoring. The scorer may select a default score of 3 (indicating hazardous substances were present, but in unknown volumes). This default score is a maximum waste volume of 500 gallons or 5 cubic yards.

1.2 MIGRATION POTENTIAL MODULE

The Migration Potential module is used to evaluate a hazardous substance's potential to migrate from its source. The parameters evaluated include substance mobility and various environmental parameters specific to each route (See Table 1-1). The direct contact-human health route substitutes access to the site for migration potential.

Mobility is the inherent chemical/physical characteristics of a hazardous substance that govern its tendency to move into and through environmental media. It is evaluated in the air pathway using substance volatility or the potential for particulate mobilization. In the ground water pathway, solubility or the coefficient of aqueous migration measures substance mobility.

For mobility in the air and the ground water pathways, the scorer determines substance mobility by multiplying the mobility and the toxicity scores for each substance. The mobility of the substance with the highest toxicity/mobility product is to be used in scoring. For example:

<u>Hazardous Substance</u>	<u>Toxicity</u>	<u>Mobility</u>	<u>Toxicity/Mobility Product</u>
PCB	12	1	12
Toluene	1	4	4
Perchloroethene	8	4	32

In this example, perchloroethene has the highest toxicity/mobility product. Therefore the mobility score for the site would be 4, the mobility of perchloroethene. When the highest toxicity/mobility product is the same for two substances, use the substance with the highest toxicity score for scoring purposes.

The environmental variables used to evaluate migration are pathway specific. In the surface water pathway, runoff potential is evaluated using rainfall, soil type, and terrain slope as indicators. In the ground water pathway, the hydraulic conductivity of the material in the unsaturated zone, net annual precipitation, and the depth to ground water are considered.

1.2.1 Air Migration Potential Data Element

Substance mobility is the only migration parameter evaluated in the air pathway. For mobility, the scorer must first determine if a hazardous substance is more likely to be transported as a particulate or a gas. The mobility score for particulates is based on soil type and a climatic factor that reflects average soil moisture. Together, these factors determine the erodibility of the soil matrix containing the substance. If a hazardous substance moves primarily as a gas, mobility is based on the volatility of the substance. Scoring instructions describe when to use the vapor pressure of a substance or Henry's Law Constant to measure the mobility of a gas in air. As described, the scorer selects the mobility score of the substance with the highest toxicity/mobility product.

1.2.2 Surface Water Migration Potential Data Elements

The Migration Potential module for the surface water pathway contains the following data elements:

- Surface soil permeability
- Maximum 2-year, 24-hour precipitation event
- Flood plain
- Terrain slope.

Surface soil permeability was chosen, in combination with the terrain slope and rainfall data, to demonstrate a hazardous substance's tendency to infiltrate site soils or to run off into nearby surface water. Because surface soil permeability is based on soil types, data should come from on-site soil samples, Soil Conservation Service Soil Surveys for the state or well logs.

Two-year, 24-hour precipitation event data are available from National Weather Service publications for the State of Oregon. The precipitation data are determined from the isopleth map provided in the scoring instructions for the surface water pathway.

Flood plain information for the State of Oregon is available from the Flood Insurance Rate Maps. Most communities or counties in the state participate in the federal flood insurance program. As part of that program, those communities and counties must provide maps showing areas subject to 100- or 500-year floods. For some communities, more detailed

information is available. However, because 100- and 500-year data were available for all areas of the state, these values were chosen for use in the model.

Slope and the other data elements in the Migration Potential module measure how quickly a hazardous substance would be likely to reach the nearest downslope surface water.

1.2.3 Ground Water Migration Potential Data Elements

The Migration Potential module for the ground water pathway includes the following data elements:

- Mobility
- Net precipitation
- Subsurface hydraulic conductivity
- Vertical depth to the aquifer.

In the ground water pathway, substance mobility is scored separately for dissolved inorganic species (cations and anions), and for organic substances. Cations and anions are assigned mobility scores based on their coefficient of aqueous migration (K) (Perel'man, 1967). The index of K values is based on the expected geochemical behavior of these cations and anions under moderately anaerobic and slightly acidic to slightly alkaline conditions. The mobility score of all other substances (including organics) depends on their solubility in water. The solubility values reflect broad classes of expected substance mobility in ground water. As in the air pathway, the scorer uses the mobility score for the hazardous substance that yields the highest toxicity/mobility product.

Net precipitation measures how effectively a substance may be driven into the ground water based on infiltration rates from precipitation alone. Annual net precipitation is used for this data element. The net precipitation is calculated by summing the net monthly precipitation data, using monthly total precipitation and evapotranspiration data averaged over a 30-year period. Where monthly net precipitation is less than zero, zero is added for that month for net precipitation. Monthly data account for areas where evaporation exceeds precipitation for at least six months of the year, but where winter precipitation may cause hazardous substance migration. These data are available from National Weather Service and Oregon State University publications for the State of Oregon.

Subsurface hydraulic conductivity measures the ease with which a substance travels between the land surface and the water table. It is based on the geologic materials underlying a site. In combination with the net precipitation data element, this data element describes the potential for subsurface migration through site soils. Subsurface hydraulic conductivity data are found in site files and in Oregon State and U.S. Geological Survey water resources and geologic reports.

The vertical depth to ground water also affects how quickly a hazardous substance might reach the water table, based solely on the distance a substance must travel. The distance

is not measured automatically from the ground surface. Instead, vertical depth is measured from the bottom of the hazardous substance release area, or the greatest depth of known soil contamination for a site. For those sites with verifiable releases to ground water, this distance is automatically "0" feet, maximizing the score for this element.

1.2.4 Direct Contact Migration Potential Data Element

In the direct contact-human health route, accessibility substitutes for migration potential. Accessibility is the potential for humans to move to the site and come into direct contact with hazardous substances. Three categories of accessibility are considered:

No Access Control. The first category is no access control. The whole site or portions of the site are uncontrolled, permitting easy access. Incidental contact with hazardous substances is much more likely than for sites in the second and third categories.

Fenced Release Areas. The second category of accessibility addresses sites with fenced contaminated areas. Access to the site involves a conscious decision to disregard the effort to restrict site access.

Fenced Sites with 24-Hour Security. The third category of accessibility addresses fenced sites with 24-hour security. Access to such a site is unlikely. In addition, if the fencing is breached, the amount of time spent at the site would be limited due to the 24-hour security.

1.3 TARGETS MODULE

The Targets module for each pathway evaluates the potential for human and environmental receptors to be affected by the migration of hazardous substances from a contaminated site. In the direct contact-human health route, it evaluates the potential for humans to contact hazardous substances at the site.

1.3.1 Air Target Data Elements

The targets for the air pathway are those human and environmental receptors directly affected by the release of airborne gases or particulates from hazardous substance sites. Targets for the human health route include:

- Distance to nearest population
- Population within 0.5 mile
- Predominant land use

Targets for the environmental route include:

- Distance to nearest sensitive environments

Information on the nearest population may be obtained either from the site file, or from a USGS topographic map. The total population within 0.5 mile may be obtained by counting buildings on the USGS map within 0.5 mile of the site, or by using the most recent Federal Census data. In some cases, the local city or county planning department or town clerk may be the best source of this information.

Predominant land use is a measure of the transient or worker population density and types of use near the site. This data element takes into account 8-hour exposures, whereas residential exposures are typically considered to be 24-hour exposures. It is designed to distinguish predominantly industrial or commercial areas.

Sensitive environments are federal- and state-designated natural areas, county or municipal parks, and wetlands and critical habitats for endangered species. Sensitive environment information may be obtained from the Bureau of Land Management (BLM) Areas of Critical Environmental Concern, U. S. Fish and Wildlife Service (FWS) Coastal Ecological Inventory, FWS Wetlands Inventory, topographic maps, and road maps. Use of the area by any state endangered species can be verified by the Oregon Department of Fish and Wildlife.

1.3.2 Surface Water Target Data Elements

The targets for the surface water pathway are those human and environmental receptors that may be affected by the release of hazardous substances from the site to the surface water. The following are targets for the surface water human health route:

- Distance to the nearest surface water body
- Population served by surface water drinking water sources
- Acres irrigated by surface water intakes
- Recreational use.

The following are targets for the surface water environmental route:

- Distance to the nearest surface water body
- Distance to the nearest fisheries resource
- Distance to the nearest sensitive environment

The distance to surface water is an indirect means of measuring the potential for impacting targets. It indicates how close contamination is to surface water that human and environmental targets may use.

The population served by drinking water sources within 2 miles addresses potential exposure through drinking water. Scorers must include all drinking water sources within 2 miles of

lakes, and those within 2 miles downstream of the site for rivers and streams. The location of public and private supplies for which water rights have been filed is available from the Oregon Water Rights Information System (OWRIS) database. The population served by public water supplies is available from the Oregon Health Division, Drinking Water System Section.

The acreage-irrigated-by-surface-water-sources data element accounts for the possible contamination of human or livestock food crops by hazardous substances. The irrigation intakes and acreage irrigated by these intakes is available from the OWRIS database.

Recreational use of the surface water body closest to the site is designed to address the potential for exposure through direct contact with surface water due to recreational activities such as boating and swimming. Data on recreational use is available from the Oregon Rivers Database.

Fisheries resources within 2 miles of the site are counted as areas vital for the spawning, feeding or migration of fish and shellfish. In Oregon, fisheries resources are scored if the water body is suitable for anadromous fish (salt-and-fresh water species) or has a high resource value for resident fish. This information is available from the Oregon Rivers Database.

Sensitive environments other than fisheries resources are discussed in Section 1.3.1.

1.3.3 Ground Water Target Data Elements

Like the other pathways, the ground water pathway targets data elements account for human targets affected by the release of hazardous substances into the environment. The ground water pathway does not, however, address environmental targets. Targets for the ground water-human health route include:

- Distance to the nearest drinking water well
- Ground water usage types
- Total population served by wells in the section and adjacent sections
- Acreage irrigated by wells in the section and adjacent sections.

For well locations, population served, and irrigation acreage data, the same databases may be used as those for surface water (see Section 1.3.2). In addition, private well log information is filed with the Oregon Water Resources Department. The ground water usage designation includes seven choices, ranging from federal sole source aquifer designation to ground water not usable due to naturally occurring substances (Table 5-8).

1.3.4 Direct Contact Target Data Elements

The direct contact-human health route considers two targets:

- Residences on the site or on adjacent properties
- Other structures or activities on the site or on adjacent properties that indicate the potential for the presence of sensitive populations.

The proximity of residences to the site is used to address the potential for humans, children in particular, to directly contact hazardous waste or substances at a site.

The other category of targets is also used to address the potential for direct contact primarily with sensitive populations such as children. Other structures and activities include playgrounds, schools, fairgrounds and day care facilities, and locations such as parks.

The location of the site in a sensitive environment is the only data element that addresses direct contact for sensitive environments (see Sections 1.3.1 and 1.3.2).

1.4 RELEASE MODULE

The Release module for each pathway is scored for a verified release. Route scoring instructions provide specific rules to determine whether releases have occurred to the surface water, air or ground water pathways. In all pathways, releases are only included in the analysis when the discharge is not permitted by and is not in substantial compliance with a U.S. Environmental Protection Agency or DEQ permit.

In the air pathway, evidence must include direct visual evidence of particulate or gaseous releases, analytical evidence, or detectable odors quantifiable by analytical evidence.

In the surface water pathway, visual or analytical evidence must be available. Visual evidence may include documentation of overland flow or the observance of a discolored plume from an identifiable source entering the surface water.

The following evidence may be used to verify release of a hazardous substance into the ground water pathway:

- Direct dumping, such as an injection well or dry well.
- Presence of the bottom of a hazardous substance release area below the water table (the bottom of an impoundment containing hazardous substances in the water table).
- Analytical evidence from ground water monitoring wells.

In all three pathways, if analytical evidence is used to verify contamination, it must demonstrate that the concentration of the hazardous substance is at least three times that of expected or measured background if natural background concentrations, as for metals, are possible.

2. PRELIMINARY SCORING INSTRUCTIONS

As a site scorer, it is important to review and follow these preliminary instructions. The Site Scoring Procedure is applied only to sites to be listed on the Inventory. Before a site can be listed on the Inventory, DEQ requires preparation of a PA or equivalent. The PA or PA equivalent should be the primary document used to score a site.

During the site scoring process, data from several references and databases will have to be collected. A list of the references and databases is summarized in Attachment A. The list explains how references are used in the manual and how they are updated. DEQ will review and annually update this list. During scoring, you may have to use information sources other than those specified on the list. Space is provided on the worksheets to document the use of such sources.

When assigning scores for certain data elements in the Site Scoring Procedure, use your best professional judgement. The worksheets have space for additional documentation to support professional judgement decisions.

These preliminary instructions address evaluation of the site including identification of hazardous substances of concern, source quantity calculations and containment evaluations. Detailed instructions for scoring each route are provided in subsequent chapters.

2.1 SITE SCORING SUMMARY (The Summary Worksheet)

Site scoring has two primary goals:

1. Generation of six route and three site scores
2. Identification of any characteristics unique to the site and unaccounted for by the Site Scoring Procedure but that might increase or decrease the risk associated with the site.

The Summary Worksheet is provided to document the information satisfying both of these goals. The route and site scores calculated for a site should be entered on the Site Scoring Summary Sheet. The overall site score will be used to rank the site on the Inventory.

During the site scoring process, you may become aware of special site conditions indicating that the relative risk of contamination is not accurately represented by a route score. In such cases, the special characteristics and potential under- or over-representation of site risks should be described on the Summary Worksheet. Some examples of special considerations are these:

- Direct-contact exposure not addressed in the Site Scoring Procedure
- Sites with exceptionally large waste volumes
- Sites where the population potentially affected by the contamination is very large.

While information in the Special Considerations Section will not be used to alter the site score, it may be used to adjust DEQ's priority for the site.

2.2 SITE DESCRIPTION (Worksheet 1)

The first step in scoring a site is to list the site name, identification number from the DEQ Site Discovery Database, and location on Worksheet 1. Worksheet 1 should also include a brief site description of current and past activities at the site and the areal extent of the site.

Hazardous Substance Release Areas

Describe past and present hazardous substance release areas at the site (see Section 1.1.1). Hazardous substance release areas permitted, in substantial permit compliance, or otherwise authorized by statute, or regulation should not be scored. See the definition of permitted or authorized release in the Glossary.

At the bottom of Worksheet 1, list the hazardous substance release areas of concern for each pathway. If all hazardous substance release areas are of concern to all pathways, indicate that at the bottom of the worksheet.

Hazardous Substances

List the hazardous substances of concern associated with each hazardous substance release area. If the hazardous substances are the same for all areas, simply list the substances of concern after the list of release areas (see Section 1.1.2).

2.3 DERIVING SOURCE QUANTITY (Worksheet 2)

Estimate the total quantity of materials contaminated with hazardous substances in each hazardous substance release area at the site. Do not try to calculate the quantity of a specific substance within a complex mixture. For each release area, enter all source quantity calculations on Worksheet 2.

For tanks or impoundments periodically filled and emptied, calculate the volumes based on their usage or filled volumes.

For landfills the actual volume of the landfill should not be used in scoring source quantity for the surface water, air, and direct contact pathways. Instead, the areal extent of the landfill should be determined and multiplied by a 0.5-foot depth to obtain the total volume to be used in scoring. However, for the ground water pathway the actual volume of the landfill should be used. If volume information is not available, the areal extent of the landfill should be estimated and multiplied by the estimated average landfill depth. Or if average depth information is unavailable, a 3-foot depth can be used.

If no information is available regarding waste quantity, use your best professional judgement to estimate a minimum quantity. Document that estimate on Worksheet 2.

Quantity Determinations for Contaminated Soil

Where hazardous substances have been spilled, discharged, or dumped, and the quantity is known or can be estimated, estimate the quantity of the substance discharged.

If the quantity of material causing soil contamination **cannot** be determined or estimated from existing information, it can still be estimated. Use instead the areal extent of soil contamination for the surface water and air pathways and the volume for the ground water pathway (assume a depth of 3 feet if depth is unknown). If the area of contaminated soil at the site is not in the existing site information, estimate the area. This estimate should be made using your best professional judgement.

The following factors should be considered in estimating the area of contaminated soil:

- Areal extent of visible contamination (such as discolored soil or stressed vegetation).
- Practice that resulted in soil contamination and distribution of site features. (For example, drums of hazardous substances would probably have been emptied onto an open area with easy access rather than areas with physical barriers or covering vegetation such as woods or overgrowth.)
- Extent of contamination inferred from site sampling.

2.4 CONTAINMENT (Worksheet 2)

Scoring the containment of the hazardous substances in the hazardous substance release areas depends on the pathway and, in some cases, the specific route. See Attachment B (Tables B-1, B-2, and B-3) for how containment should be calculated for the surface water, air, and ground water pathways. In some cases only one item must be considered to determine the score. In others the score is determined by combining scores for several items.

For example, in the surface water pathway, the only item considered for a landfill is the type of run-on/runoff control system present. While, for drums and small containers, two questions must be answered and two scores added to obtain the containment score. On Worksheet 2, list the hazardous substance release areas of concern for each pathway and document the containment score including the subscores.

Please note that in order to score containment for the air pathway, the substance release mechanism (particulate or gaseous) must be identified. The mechanism is identified through the process of determining the toxicity and mobility scores. See Section 4.1.3 for a discussion of this determination.

2.5 MULTIPLE HAZARDOUS SUBSTANCE RELEASE AREAS (Worksheet 3)

Use Worksheet 3 only if both of the following conditions are met for the pathway under consideration:

- Multiple hazardous substance release areas are present at a site, with hazardous substances with differing toxicity and mobility scores managed in each
- The hazardous substance release area with the poorest containment (for the pathway under consideration) does **not** contain the substance with the highest toxicity/mobility product or toxicity score for the surface water pathway among those present at the site.

If these conditions are not met, the following instructions do not apply to the site and all remaining scoring instructions for the four pathways are presented in the subsequent chapters.

If the conditions are met, follow the instructions presented below to determine the toxicity, mobility and containment scores to enter on Worksheets 4, 5, and 6 as appropriate. An analysis is not performed for the direct contact-human health route because containment is not a data element in the route (see Section 1.1.5 for related discussion).

First, list the hazardous substance release areas present at the site at the top of Worksheet 3. **Note:** The word "combination" on Worksheet 3 refers to the combination of the hazardous substance release area and the hazardous substance in the release area with the highest toxicity score for each route. The specific instructions for scoring the air, surface water, and ground water pathways using Worksheet 3 are presented below. Document the analysis described on a separate worksheet that should be attached to Worksheet 3.

Air Pathway

1. Assign a containment score to each hazardous substance release area using Table B-2 and enter the scores on Worksheet 3 (C).

2. Air-Human Health Route

- a. Identify the hazardous substances of concern for the human health route for each release area and list them.
- b. Obtain the human health toxicity score for each hazardous substance for each release area from the Oregon Hazardous Substance Database.
- c. Obtain the mobility score for each hazardous substance using the instructions in Section 4.2.1.
- d. Multiply the toxicity score with the mobility score for each hazardous substance in each release area.
- e. On Worksheet 3 enter the name of the substance with the highest toxicity/mobility product and its toxicity score next to "Human Tox. Substance and Score (A)" for each release area.
- f. Multiply the toxicity score (A) with the containment score (C) to obtain the Air-Human Health Route Toxicity/Containment Product for each release area.
- g. Circle the highest toxicity/containment product for the route and enter on Worksheet 5 the toxicity, mobility, and containment scores for the release area/substance combination with the highest product.

3. Air-Environmental Route

- a. Identify the hazardous substances of concern for the environmental route for each release area and list them.
- b. Obtain the environmental toxicity score for each hazardous substance from the Oregon Hazardous Substance Database.
- c. Obtain the mobility score for each hazardous substance using the instructions in Section 4.2.1.
- d. Multiply the toxicity score with the mobility score for each hazardous substance in each release area.
- e. On Worksheet 3 enter the name of the substance with the highest toxicity/mobility product and its toxicity score next to "Env. Tox. Substance and Score (B)" for each release area.
- f. Multiply the toxicity score (B) with the containment score (C) to obtain the Air-Human Health Route Toxicity/Containment Product for each release area.

- g. Circle the highest toxicity/containment product for the route and enter the toxicity, mobility, and containment scores for the release area/substance combination with the highest product.
- h. If the release area/substance combination with the highest product is different for the human health and environmental routes, enter the environmental route containment score along with the human health route containment score on Worksheet 5 in the appropriate locations.

Surface Water Pathway

1. Assign a containment score to each release area at the site using Table B-1 and enter the scores on Worksheet 3 (F).
2. Surface Water-Human Health Route
 - a. Identify the hazardous substances of concern for the human health route for each release area and list them.
 - b. Obtain the human health toxicity score for each hazardous substance from the Oregon Hazardous Substance Database and choose the substance with the highest toxicity score in each release area.
 - c. On Worksheet 3 enter the name of the substance and its toxicity score next to "Human Tox. Substance and Score (D)" for each release area.
 - d. Multiply the toxicity score (D) with the containment score (F) to obtain the Surface Water-Human Health Route Toxicity/Containment Product for each release area.
 - e. Circle the highest toxicity/containment product for the route and enter on Worksheet 4 the toxicity and containment scores for the release area/substance combination with the highest product.
3. Surface Water-Environmental Route
 - a. Identify the hazardous substances of concern for the environmental route and list them.
 - b. Obtain the environmental toxicity score for each hazardous substance from the Oregon Hazardous Substance Database and choose the substance with the highest toxicity score.

- c. On Worksheet 3 enter the name of the substance with the highest toxicity score and its toxicity score next to "Env. Tox. Substance and Score (E)" for each release area.
- d. Multiply the toxicity score (E) with the containment score (F) to obtain the Surface Water-Environmental Route Toxicity/Containment Product for each release area.
- e. Circle the highest toxicity/containment product for the route and enter on Worksheet 4 the toxicity and containment scores for the release area/substance combination with the highest product.
- f. If the release area/substance combination with the highest product is different for the human health and environmental routes, enter the environmental route containment score along with the human health route containment score on Worksheet 4 in the appropriate locations.

Ground Water-Pathway

1. Assign a containment score to each hazardous substance release area using Table B-3 and enter the scores on Worksheet 3 (H).
2. Ground Water-Human Health Route
 - a. Identify the hazardous substances of concern for the human health route for each release area and list them.
 - b. Obtain the human health toxicity score for each hazardous substance for each release area from the Oregon Hazardous Substance Database.
 - c. Obtain the mobility score for each hazardous substance for each release area using the instructions in Section 5.2.1.
 - d. Multiply the toxicity score with the mobility score for each hazardous substance in each release area.
 - e. On Worksheet 3 enter the name of the substance with the highest toxicity/mobility product and its score next to "Human Tox. Substance and Score (G)" for each release area.
 - f. Multiply the toxicity score (G) with the containment score (H) to obtain the Ground Water-Human Health Route Toxicity/Containment Product for each release area.

- g. Circle the highest toxicity/containment product for the route and enter on Worksheet 6 the toxicity, mobility and containment scores for the release area/substance combination with the highest product.

If all pathways have been considered in this analysis, Worksheets 4, 5, and 6 should now have scores for human health and environmental toxicity, mobility, and containment.

3. SURFACE WATER PATHWAY (Worksheet 4)

The surface water pathway includes two routes: surface water-human health and surface water-environmental. Score both routes using the instructions presented below. Some data elements are common to both routes (for example, all the migration potential data elements) and some are specific to each route (for example, most of the targets data elements). Worksheet 4 is used to enter data and scores for both routes.

3.1 SOURCE CHARACTERISTICS

Evaluation of the hazardous substance release areas of concern and the hazardous substances in those areas is the first step in scoring the surface water pathway. The release areas of concern to surface water should be listed at the bottom of Worksheet 1. Review the list of hazardous substances present in those areas and decide which are of concern to the surface water pathway. On Worksheet 4, list the hazardous substances under Human Toxicity and Environmental Toxicity. The substances do not necessarily have to be the same for both routes. If Worksheet 3 is used, obtain the toxicity and containment scores from that Worksheet.

3.1.1 Source Quantity

Estimate the total source quantity for the surface water pathway using the information on Worksheets 1 and 2 (see Sections 1.1.6 and 2.3 for a related discussion). Sum the quantities for the hazardous substance release areas that potentially affect the surface water pathway. List the quantities summed and the total quantity on Worksheet 4 under Source Quantity. Assign scores for source quantity as shown in Table 3-1. Use Table 3-1 to assign a source quantity score for landfills, assuming a depth of 0.5 feet.

For sites with multiple release areas with differing units of measure convert quantities as follows: 1.5 tons = 1 cubic yard = 4 drums = 200 gallons.

Table 3-1. Surface water pathway source quantity scores.

Gallons	Cubic Yards	Tons	Drums	Score
1-500	1-5	0-2	1-10	3
501-5,000	6-25	2.1-20	11-100	6
5,001-125,000	26-625	21-200	102-2,500	9
125,001-3.0 mil	626-15,600	201-1,000	2,501-10,000	12
>3.0 mil	>15,600	>1,000	>10,000	15

For quantity determinations based on contaminated soils, use Table 3-2.

Table 3-2. Source quantity scores based on areal extent of surface soil contamination.

Area in Square Feet	Area in Acres	Score
≤ 5,000 or unknown	< 0.1	3
> 5,000-20,000	> 0.1-0.5	6
> 20,000-400,000	> 0.5-10	9
> 400,000-650,000	> 10-15	12
> 650,000	> 15	15

To combine contaminated soil with other on-site waste quantities, calculate a volume of contaminated soil using site information. If the depth of contamination is unknown, assume 0.5 feet. If the depth is more than 0.5 feet, use a 0.5-foot depth regardless of the depth of contamination. Only the top 0.5 feet of soil is assumed available for surface runoff. Convert all the waste quantities to cubic yards, and add the cubic yards to measure source quantity. Use Table 3-1 to determine the score to record on Worksheet 4.

If no source quantity can be determined, enter a default score of 3.

Please note that the source quantity is the total quantity of materials containing hazardous substances where a release has occurred or a threat of release exists. The source quantity should be the same for the human health and environmental routes.

3.1.2 Containment

Containment scores should be determined using the criteria shown in Table B-1 in Attachment B. The hazardous substance release areas to be considered for this pathway and the scores for each should be listed on Worksheet 2. Take the highest score from Worksheet 2 and record it on Worksheet 4. If Worksheet 3 was used because different release areas at a site have different toxicity and mobility scores, obtain the containment score for the release area with the highest toxicity/containment product from Worksheet 3. The containment score will typically be the same for the human health and environmental routes. However, if Worksheet 3 is used, it is possible for the containment scores chosen for each route for scoring purposes to be different for human health and the environment. If this is the case, enter both scores on Worksheet 4.

3.1.3 Human Toxicity

Components of the toxicity data element for the surface water-human health route include several kinds of toxicity which measure the effects of exposure through ingestion (oral

exposure route). They are acute and chronic oral toxicity, oral carcinogenic potency factors, U.S. Environmental Protection Agency (EPA) weight of evidence class for carcinogenicity, and human developmental and reproductive toxicity for ingestion.

For each hazardous substance listed on Worksheet 4, obtain the oral toxicity score from the Oregon Hazardous Substance Database (maximum 14 points is possible). Enter the score for the hazardous substance with the highest toxicity score on Worksheet 4. If three or more hazardous substances have scores ≥ 10 , add one additional bonus point to the total toxicity score for the site. The maximum possible toxicity score is 15. For a description of how the toxicity score for each hazardous substance is assigned in the database, see Section 1.1.3.

3.1.4 Environmental Toxicity

Toxicity scores for the surface water environmental route are based on the Clean Water Act Water Quality Criteria for Protection of Aquatic Life or median lethal concentration data (LC₅₀). Obtain the surface water environmental toxicity score from the Oregon Hazardous Substance Database for each substance chosen for the environmental route. Enter all the scores on Worksheet 4. Choose the highest score to enter on Worksheet 4. If neither water quality criteria nor lethal concentration data are available for any of the substances of concern, use a default score of 7 for scoring toxicity for the site. See Section 1.1.4 for an explanation of how the scores are assigned in the database.

3.2 MIGRATION POTENTIAL

3.2.1 Surface Soil Permeability

Surface soil permeability measures the tendency of a liquid (usually water) to permeate soil. Consider the soil type categories on Table 3-3 for scoring. Preferably, soil types should be obtained from surface soil information as observed on the site. However, if this information is unavailable, consult a Soil Conservation Service Soil Survey of the area. Site soil information could be obtained from review of site soil borings, well logs of on-site wells, and other site file information.

If a site is completely paved, the path of runoff should be determined and soils between the site and surface water used to determine the score. If a paved site is directly adjacent to the surface water or runoff from the site enters a storm drain discharging to surface water, use the maximum score (7). If a site is partially paved, has culverts, or variable soil types, determine the most likely path to surface water and use the soil type most prevalent over that path. Record that score on Worksheet 4.

Table 3-3. Surface soil permeability scores.

Soil Type	Permeability	Score
Sand, gravel, sandy gravel, well-graded sand, well-graded gravel, gravelly sand, gravelly sandy loam, sandy loam, silty sandy loam	High	1
Poorly-graded sands with fines, silt-sand mixtures, loam, silt loam, sandy silt loam, clayey sand, clay sandy loam	Medium	3
Clayey sands, sand-clay mixtures, clayey gravels, clay-sand-gravel mixtures, inorganic silts, clayey silt loam, silty clay loam, porous rock outcrop, sandy silty clay, sandy clay, sandy clay loam	Low	5
Clay (organic and inorganic), clay loam, rock outcrop, peat, peaty clay	Very low	7

3.2.2 Maximum 2-Year, 24-Hour Precipitation Event

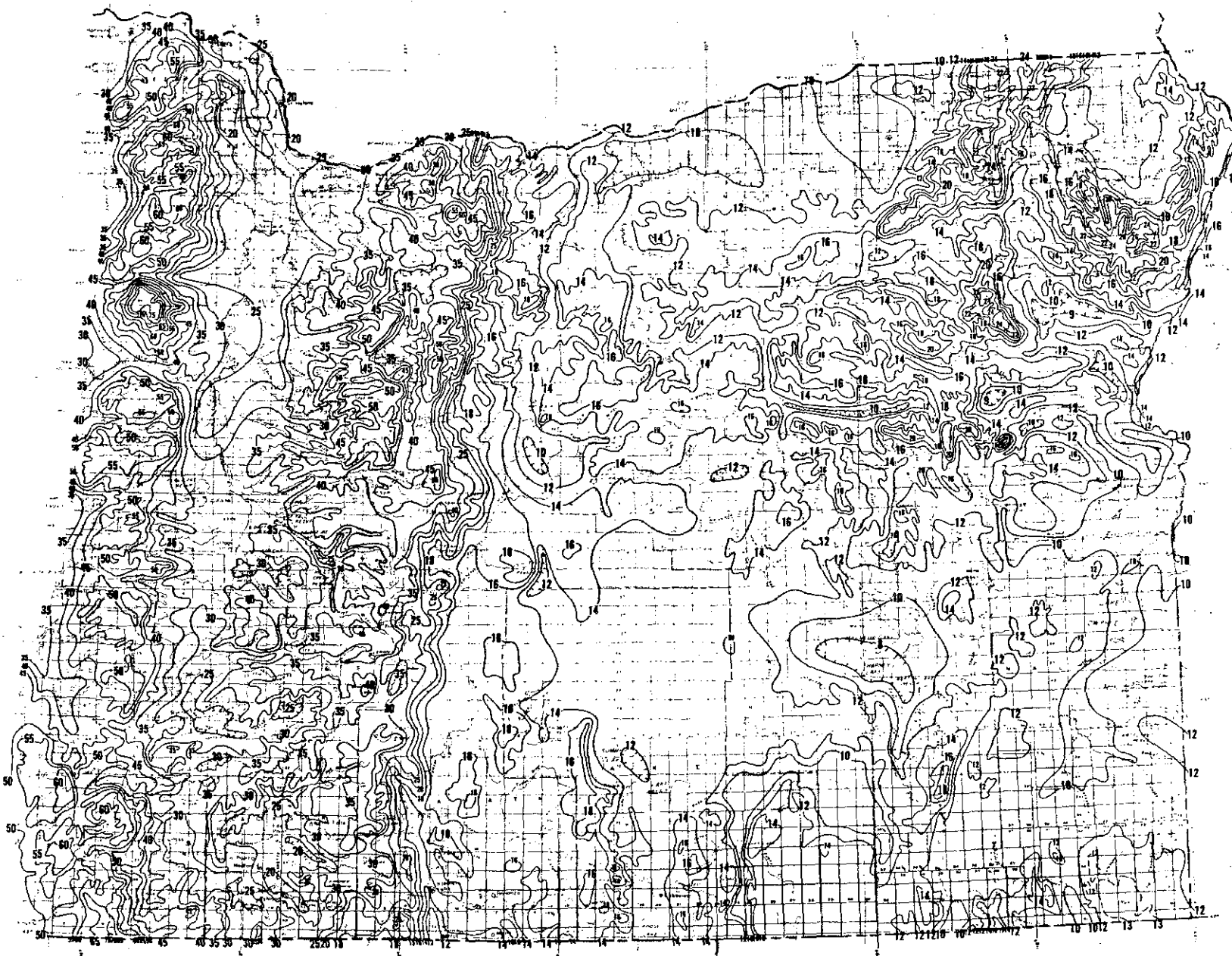
The data for the maximum 2-year, 24-hour precipitation event are shown in Figure 3-1. The unit of measure in Figure 3-1 is in tenths of an inch. A conversion to inches is required in order to use Table 3-4. Use Table 3-4 to assign a score for maximum 2-year, 24-hour precipitation event and record it on Worksheet 4.

Table 3-4. Maximum 2-year, 24-hour precipitation event scores.

Precipitation (inches)	Score
≤ 1	1
> 1-2	2
> 2-3.5	3
> 3.5-5	4
> 5	5

3.2.3 Flood Plain

Determine whether the site is in a flood plain as designated by Flood Insurance Rate Maps for the area. The flood plain score should be determined from Table 3-5, and recorded on Worksheet 4.



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for
 U.S. DEPARTMENT OF AGRICULTURE
 ENGINEERING DIVISION, SOIL CONSERVATION SERVICE

MAR 19 1951

Figure 3-1.
2-YEAR 24-HOUR PRECIPITATION
 ——— ISOPLUVIALS OF 2-YEAR 24-HOUR
 PRECIPITATION IN TENTHS OF AN INCH
 ANNUAL

OREGON



Table 3-5. Flood plain scores.

Classification	Scores
Not in flood plain	0
In 500-yr flood plain	1
In 100-yr flood plain	2

3.2.4 Terrain Slope

To assign the score for terrain slope, the slope between the site and the nearest downgradient body of surface water must be determined from a topographic map. See the Glossary for a definition of surface water. Note that man-made lakes, irrigation canals or ditches are considered surface waters if they connect with a natural surface water body. Intermittent streams and playa or seasonal lakes are also included in the definition of surface water. If more than one surface water body is present, use the one for which the shortest distance can be calculated. If surface water discharges to a storm drain, score 3 for terrain slope. Record the score on Worksheet 4. If a topographic map is used to calculate terrain slope between the site and the nearest downgradient body of surface water use the following approach:

1. Determine the path runoff will follow from the site to surface water (downhill, perpendicular to topographic contours - Figure 3-2)

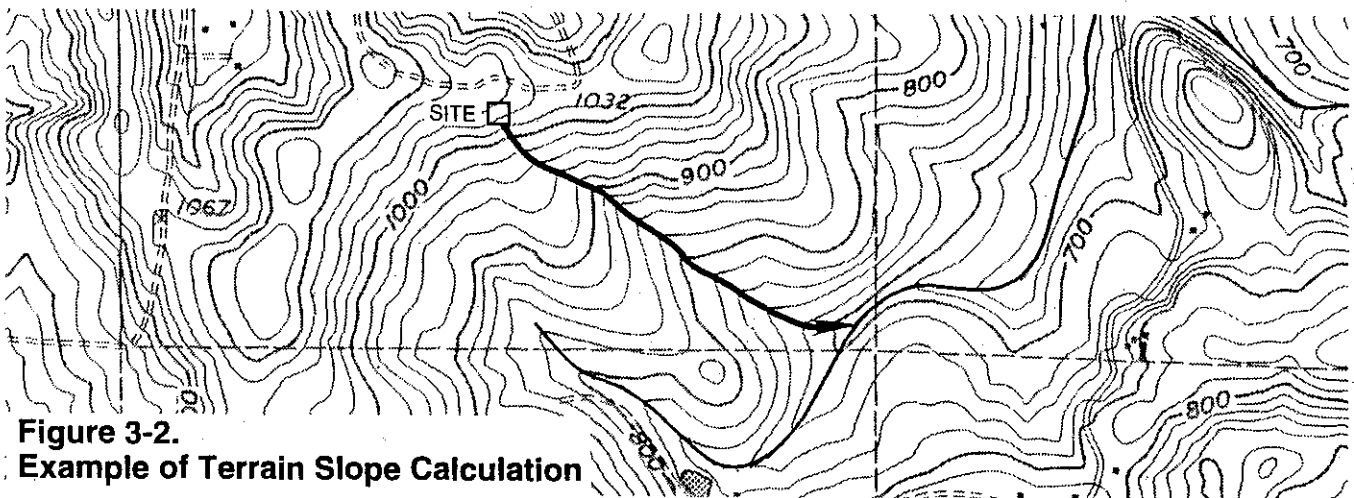


Figure 3-2. Example of Terrain Slope Calculation

Figure 3-2: Example of terrain slope calculation

2. Measure the distance along the flow path. Assign this value to "X."

3. Subtract the surface water elevation from the site elevation (in the example above = 900 - 830 = 70 feet.) Assign this value to "Y."
4. Calculate the slope by the formula:

$$\text{Slope (percent)} = \frac{Y}{X} * 100$$
5. Assign the slope score using Table 3-6. Record the score on Worksheet 4.

Table 3-6. Terrain slope scores.

Terrain Slope	Score
≤ 2%	1
> 2% to 5%	2
> 5% to 8% (or piped/culverted)	3
> 8%	5

3.3 TARGETS: HUMAN HEALTH ROUTE

3.3.1 Distance to Surface Water

Determine the distance to the nearest fresh or marine surface water using a topographic map and following the overland flow path of a liquid to the nearest downgradient surface water. This should be the same distance used to determine terrain slope.

Surface water is defined as stated in the Glossary. Note that man-made lakes, irrigation canals, or ditches are considered surface waters if they are connected to natural surface waters. Intermittent streams and playa lakes should also be considered.

If more than one surface water body is potentially in the overland flow path, use the one for which the shortest distance can be calculated. If surface water discharges to a storm drain, include the distance within the storm drain in evaluating distance to surface water. Obtain the appropriate score from Table 3-7, and enter it on Worksheet 4.

Table 3-7. Distance to surface water scores.

Distance (feet)	Score
< 1,000	10
> 1,000-2,500	7
> 2,500-5,000	4
> 5,000-10,000	2
> 10,000	0

3.3.2 Population Served by Drinking Water Intakes

Identify the potential point of entry of hazardous substances to the nearest downgradient surface water (see Section 3.3.1). The determination of the population served by drinking water intakes within 2 miles downstream of the site is a three-step process:

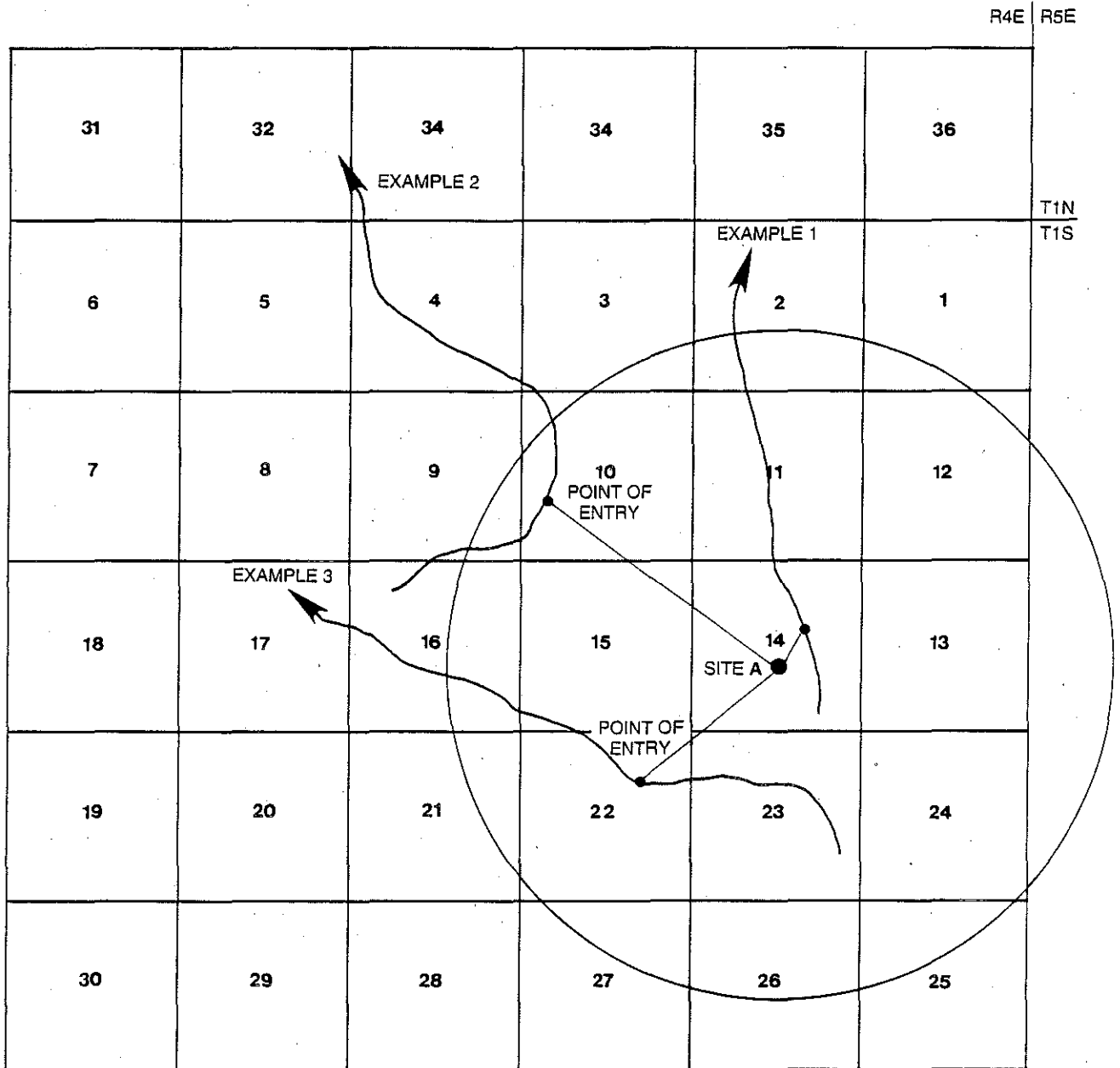
Step One - Identify the sections where any part of the section is within a 2-mile radius of the area of contamination (not the point of entry to surface water). The method for selecting the sections to search for drinking water intakes is demonstrated in Figure 3-3 using examples. Using this method include in your search for drinking water intakes the following sections within the circle on Figure 3-3:

- In Example 1, Sections 14, 11, and 2
- In Example 2, Section 10
- In Example 3, Sections 22, 15, and 16.

Step Two - Obtain the data on drinking water intakes within the sections selected in Step One from the Oregon Water Rights Information Service (OWRIS) and from well logs filed with the Oregon Department of Water Resources. Consider all intakes located in lakes along the surface water flow path, but only those downstream of the site for intakes located in rivers.

Step Three - Obtain data on the population served with drinking water from these intakes from the Oregon Health Division's Drinking Water Systems Section.

Use Table 3-8 to assign a population score to enter on Worksheet 4.



- T Township
- R Range
- 9 Section Number
- Site Location
- Direction of Streamflow

Figure 3-3.
Location of Sections (Township, Range, Section)
To Include In Site Scoring Procedure
Surface Water Intake Search

Table 3-8. Population served by surface water intakes scores.

Population	Score
0	0
1-1,000	5
> 1,000-5,000	10
> 5,000-10,000	15
> 10,000	20

3.3.3 Acres Irrigated by Surface Water Sources Located Within 2 Miles

To assign the score for acres irrigated, select the sections to search for surface water intakes using the same method as that shown in Section 3.3.2. Identify the intakes within those sections and obtain the acres irrigated by water withdrawn from those intakes from the OWRIS Database. Note that the surface water intakes must be within 2 miles of the site and in the downstream direction for flowing surface water bodies; the acreage can be anywhere.

The OWRIS Database provides the location of the intake, not the location of the acreage. The acreage irrigated by each intake is also listed. The acreage for both primary and supplemental water rights should be added to calculate the total acreage. Use Table 3-9 to assign a score and record it on Worksheet 4.

Table 3-9. Acreage irrigated by intakes scores.

Acreage	Score
0	0
1-400	1
> 400-800	2
> 800-1,200	3
> 1,200-1,600	4
> 1,600	5

3.3.4 Recreational Use of Surface Water Body

To assign a score to this data element, obtain data from the Oregon Rivers Study Database on the recreational use of the surface water body closest to the site and within 2 miles of the site. Score the surface water body with the highest recreational use score within 2 miles. Remember to include the overland flow path in the 2 mile calculation. Use the matrix in Table 3-10 to score recreational use. Record this score on Worksheet 4.

Table 3-10. Recreational use of surface water scores.

Overall Recreational Use	Other	Boating	Score
1	1	1	5
1	1	2	4
1	2	2	3
2	2	3	2
2	3	3	1
Higher values or no data	Higher values or no data	Higher values or no data	0

3.4 TARGETS: ENVIRONMENTAL ROUTE

3.4.1 Distance to Surface Water

See Section 3.3.1. Use the same score derived for the human health route.

3.4.2 Distance to Nearest Fisheries Resource

A fisheries resource is defined as an area necessary for the maintenance of spawning or migratory pathways for anadromous or resident fish species. Obtain the data on the use of the surface water body as a fisheries resource from the Oregon Rivers Study Database.

This data element is only scored if a stream or river reach within 2 miles downstream of the site is designated in the Database as "Yes" for anadromous fish, or the resident fish score is 1 or 2. Otherwise, enter a score of "0" on Worksheet 4. Distances are calculated as the overland flow to the nearest downgradient surface water (the distance used in Section 3.3.1) plus the linear distance downgradient in the water body to the designated resource. Assign the score from Table 3-11 and record it on Worksheet 4.

Table 3-11. Distance to fisheries resource scores.

Distance (feet)	Score
≤ 1,000	15
> 1,000-2,500	12
> 2,500-5,000	8
> 5,000-10,000	3
> 10,000 or Not Applicable	0

3.4.3 Distance to Nearest Sensitive Environment

Determine whether any of the sensitive environments listed in Table 3-12 are present within 2 miles downstream of the site using the following data sources:

1. BLM Areas of Critical Environmental Concern
2. U.S. Fish & Wildlife Service Coastal Ecological Inventory
3. U.S. Fish and Wildlife Service Wetlands Inventory
4. 7.5 Minute Topographic Map (USGS Quadrangle Series)
5. Local Oregon Fish and Wildlife personnel for endangered species habitat.
6. BLM Oregon State Office
7. Road Maps

Table 3-12. Sensitive environments.^a

- Critical habitat for federally designated endangered or threatened species (5)
- National Park, Monument, National Marine Sanctuary, National Recreation Area, National Wildlife Refuge, National Forest (campgrounds, recreation areas, game management areas, wildlife management areas) (1, 2, 4, 7)
- Designated Federal Wilderness Area (1, 4, 7)
- Wetlands (freshwater, estuarine, or coastal - 5-acre minimum) (3)
- Wild and scenic rivers (2, 6)
- State Parks (1, 4, 7)
- State Wildlife Refuges (1, 4, 7)
- Habitat designated for state endangered species (5)
- State designated natural areas (4, 7)
- County or municipal parks (4, 7)

^a The number(s) in parentheses correspond to the number of the data source listed above.

Measure the distance to the nearest sensitive environment. Use Table 3-13 to determine the scores for the distance calculated and record on Worksheet 4.

Table 3-13. Distance to sensitive environment scores.

Distance (feet)	Score
≤ 1,000	15
> 1,000-2,500	12
> 2,500-5,000	8
> 5,000-10,000	3
> 10,000	0

3.5 RELEASE

A release of a hazardous substance to surface water may be verified using visual or analytical evidence:

Visual evidence: Visual evidence may include direct observation of overland flow and discharge to a surface water or the observance of a discolored plume whose source can be verified as a hazardous substance from the site.

Analytical evidence: Analytical evidence may be determined using surface water or aquatic sediment samples. It must demonstrate the presence of a hazardous substance at 3 times expected or measured background levels to account for sampling and analytical error and the natural variation in background.

For compounds such as most metals, where the environmental background concentration is expected to be greater than detection limits, a site-specific or regional background level should be determined. A release may be verified when the substance is present at 3 times the site-specific or regional background or more. Where the background concentration of a compound is expected to be below detection limits (most organic compounds), a release may be verified when the substance is present in surface water or sediment at 3 times the quantification limit (not the detection limit). In riverine systems, care should be taken to use those analytes for which there are no other suspected upgradient sources.

Seeps: Evidence of surface water contamination may also include a seep entering marine or fresh water. The seep must be documented as contaminated and be related to the site.

Documented Releases: These are reports of unpermitted spills or discharges that have reached surface waters. Such reports are found in the operating record or regulatory documents of a facility. They can be used as documentation of releases to surface water, if hazardous substances were present in a release that reached surface water.

(**Note:** Discharges to surface water which are "permitted or authorized releases" are not scored. These releases include releases in substantial compliance with a permit issued by DEQ and EPA and releases in conformance with DEQ or EPA rules.

If a release has been verified, record a score of 5 on Worksheet 4. If a release has not been verified, record a score of "0" on Worksheet 4.

4. AIR PATHWAY (Worksheet 5)

The air pathway includes two routes: air-human health and air-environmental. Score both routes using the instructions presented below. Some data elements are common to both routes and some are specific to each route. Enter data and scores for both routes on Worksheet 5.

4.1 SOURCE CHARACTERISTICS

The first step in scoring the air pathway is to evaluate the hazardous substance release areas of concern to the pathway and the hazardous substances present in them. The release areas of concern for the air pathway should already be listed at the bottom of Worksheet 1. Review the list of hazardous substances present in those release areas and determine which are of concern to the air pathway. On Worksheet 5 list the hazardous substances under Human Toxicity and Environmental Toxicity. The substances do not necessarily have to be the same for both exposure routes.

4.1.1 Source Quantity

Estimate the total source quantity for the air pathway using the information provided on Worksheets 1 and 2 (see Sections 1.16 and 2.3 for a related discussion). Sum the quantities for the release areas of concern to the air pathway. List the quantities summed and the total quantity on Worksheet 5 under Source Quantity. Score source quantity as shown in Table 4-1. Use Table 4-1 to assign a score for landfills, assuming a depth of 0.5 feet.

For sites with release areas with differing units of measure, use the following conversion factors: 1.5 tons = 1 cubic yard = 4 drums = 200 gallons.

Table 4-1. Air pathway source quantity scores.

Gallons	Cubic Yards	Tons	Drums	Scores
1-500	1-5	0-2	1-10	3
501-5,000	6-25	2.1-20	11-100	6
5,001-125,000	26-625	21-200	101-2,500	9
125,000-3.0 mil	626-15,600	201-1,000	2,501-10,000	12
> 3.0 mil	> 15,600	>1,000	> 10,000	15

For quantity determinations based on the quantity of contaminated soil, use Table 4-2 to make scoring assignments.

Table 4-2. Air pathway source quantity scores based on areal extent of surface soil contamination.

Area in Square Feet	Area in Acres	Score
≤ 5,000	≤ 0.1	3
> 5,000-20,000	> 0.1-0.5	6
> 20,000-400,000	> 0.5-10	9
> 400,000-650,000	> 10-15	12
> 650,000	> 15	15

If contaminated soil quantity must be added to other waste quantities on-site, convert to cubic yards by assuming a 0.5-foot depth. Convert all other waste quantities to cubic yards, add the waste quantities, and use Table 4-1 to determine the appropriate score.

If no quantities can be determined, enter a default value of 3 on Worksheet 5.

Please note that the source quantity is the total quantity of materials containing hazardous substances where a release has occurred or threat of release exists. The source quantity should be the same for the human health and environmental routes.

4.1.2 Containment

Containment scores should be determined using the criteria shown in Table B-2 of Attachment B for the appropriate release mechanism. The scores depend on the air transport mechanism (particulate or gaseous). The transport mechanism should be that of the substance chosen to score for human toxicity (4.1.3). Circle the appropriate transport mechanism on Worksheet 5. The release areas to be considered and the scores for each should already be listed on Worksheet 2. Obtain the highest score from Worksheet 2 and record it on Worksheet 5.

If Worksheet 3 was used because different release areas at a site have different toxicity and mobility scores, obtain from Worksheet 3 the containment score from the release area with the highest toxicity/containment product. The containment score will typically be the same for the human health and environmental routes. However, if Worksheet 3 is used, it is possible for the containment scores to be different if the toxicity score is different for human health and the environment. If this is the case, enter both scores on Worksheet 3.

4.1.3 Human Toxicity

Components of the toxicity data element for the air-human health route include several kinds of toxicity which measure the effects of exposure through inhalation. They are acute and chronic inhalation toxicity, inhalation carcinogenic potency factors, EPA weight of evidence class for carcinogenicity, and human developmental and reproductive toxicity for inhalation.

For each of hazardous substances listed on Worksheet 5, obtain the inhalation toxicity score from the Oregon Hazardous Substance Database (maximum 14 points for any one substance) and the mobility score as derived in Section 4.2.1. Multiply the toxicity score by the mobility score for each hazardous substance to get the toxicity/mobility product. The final toxicity score to enter on the worksheet is the toxicity score for the substance with the highest toxicity/mobility product. If more than one substance has the highest toxicity/mobility product, choose the substance with the highest toxicity. For example:

<u>Substance</u>	<u>Toxicity</u>	<u>Mobility</u>	<u>Toxicity/Mobility Product</u>
Compound 1	6	5	30
Compound 2	10	3	30
Compound 3	7	3	21
Compound 4	10	2	20
Compound 5	10	1	10
Compound 6	3	5	15

Compound 1 and Compound 2 both have the highest toxicity/mobility product. In this example, Compound 2 would be chosen for scoring because it has a higher toxicity score than Compound 1. A score of 10 for toxicity and 3 for mobility would be entered on Worksheet 5. A bonus point would then be given for toxicity because three hazardous substances have toxicity scores of 10 or greater. Therefore, the toxicity score for the air human health route will be 11.

For a description of how the toxicity score for each substance is assigned in the Oregon Hazardous Substance Database, see Section 1.1.3.

4.1.4 Environmental Toxicity

Toxicity scores for the air environmental route depend on the type of sensitive environment closest to the site. If the closest sensitive environment to the site is a terrestrial environment, obtain the air route environmental toxicity score (based on acute inhalation data) from the Oregon Hazardous Substance Database for hazardous substances of concern through the air route. (See Section 1.1.4) Enter the toxicity scores for each substance on Worksheet 5.

If the closest sensitive environment to the site is a fisheries resource, obtain the surface water route environmental toxicity score from the Oregon Hazardous Substance Database for the hazardous substances of concern. (See Section 1.1.4) Enter the toxicity scores for each substance on Worksheet 5.

If acute inhalation data are not available for any of the substances of concern at a site (i.e. an environmental toxicity score is not available in the database), use a default score of 7 for scoring toxicity.

Determine the mobility score for each substance of concern by following the instructions in Section 4.2.1. Enter the mobility scores on Worksheet 5. Multiply the toxicity scores by the mobility scores. Enter the toxicity score for the substance with the highest toxicity/mobility product for scoring purposes. If more than one substance has the highest toxicity/mobility product, choose the substance with the highest toxicity for scoring purposes.

4.2 MIGRATION POTENTIAL

4.2.1 Mobility Potential for the Human Health Route

To determine the final mobility score to enter on Worksheet 5, review the substances used for human toxicity scoring. Then determine whether transport in air will be gaseous (V) or particulate (P) and enter "V" or "P" on Worksheet 5. If gaseous, determine the mobility score from Table 4-3 as explained below. The score is also available from the Oregon Hazardous Substance Database. If particulate, determine the mobility score from Tables 4-4 and 4-5 as explained below. Enter these scores in the chart on Worksheet 5. Multiply the compound-specific toxicity score by its mobility score to get the toxicity/mobility product. The final mobility score to enter on the worksheet is the score for the substance with the highest toxicity/mobility product. (See Section 4.1.4 for related discussion.) For example:

<u>Substance</u>	<u>Toxicity</u>	<u>Mobility</u>	<u>Toxicity/Mobility Product</u>
Compound 1	8	5	40
Compound 2	10	3	30
Compound 3	7	3	21

In this example, a mobility score of 5 and a toxicity score of 8 would be entered on Worksheet 5 because Compound 1 has the highest toxicity/mobility product (40).

Detailed instructions for determining the mobility score are given below.

If the transport is gaseous, use Table 4-3 this way to determine a mobility score:

- If the substance is in an aqueous solution (dilute wastewater, surface water, ground water), use Henry's Law Constant.
- If the substance is a concentrated solution (for example, a drum of trichloroethylene), use the vapor pressure.

- If soil is contaminated, and gaseous transport appears more important than particulate transport, use the vapor pressure.
- If you are not sure in what matrix the substance is contained, use the vapor pressure.
- For each substance scored using Table 4-3, indicate on Worksheet 5 whether vapor pressure (VP) or Henry's Law Constant (HLC) is used.

Table 4-3. Mobility potential for gases.

Vapor Pressure (mmHG at 20°C)	Henry's Law Constant	Score
> 10	> 10^{-3}	5
> 10^{-3} -10	> 10^{-5} - 10^{-3}	3
> 10^{-5} - 10^{-3}	> 10^{-7} - 10^{-5}	2
$\leq 10^{-5}$	$\leq 10^{-7}$	1

- If transport of the substance is expected to be particulate transport, use Tables 4-4 and 4-5 to determine mobility:
 - Determine the soil type at the site and look up its erodibility factor on Table 4-4. Enter the information on Worksheet 5.
 - Use Figure 4-1 to determine the climatic factor. Enter the information on Worksheet 5.
 - Look the resulting score up in Table 4-5.

Erodibility can be defined by determining the soil textural class as shown in Table 4-4. Preferably, soil types should correspond to surface soil information as observed on the site. However, if this information is unavailable, a Soil Conservation Service Soil Survey of the area should be consulted for soil type information. Site soil information could be obtained from review of site soil borings, well logs of on-site wells, and other site file information.

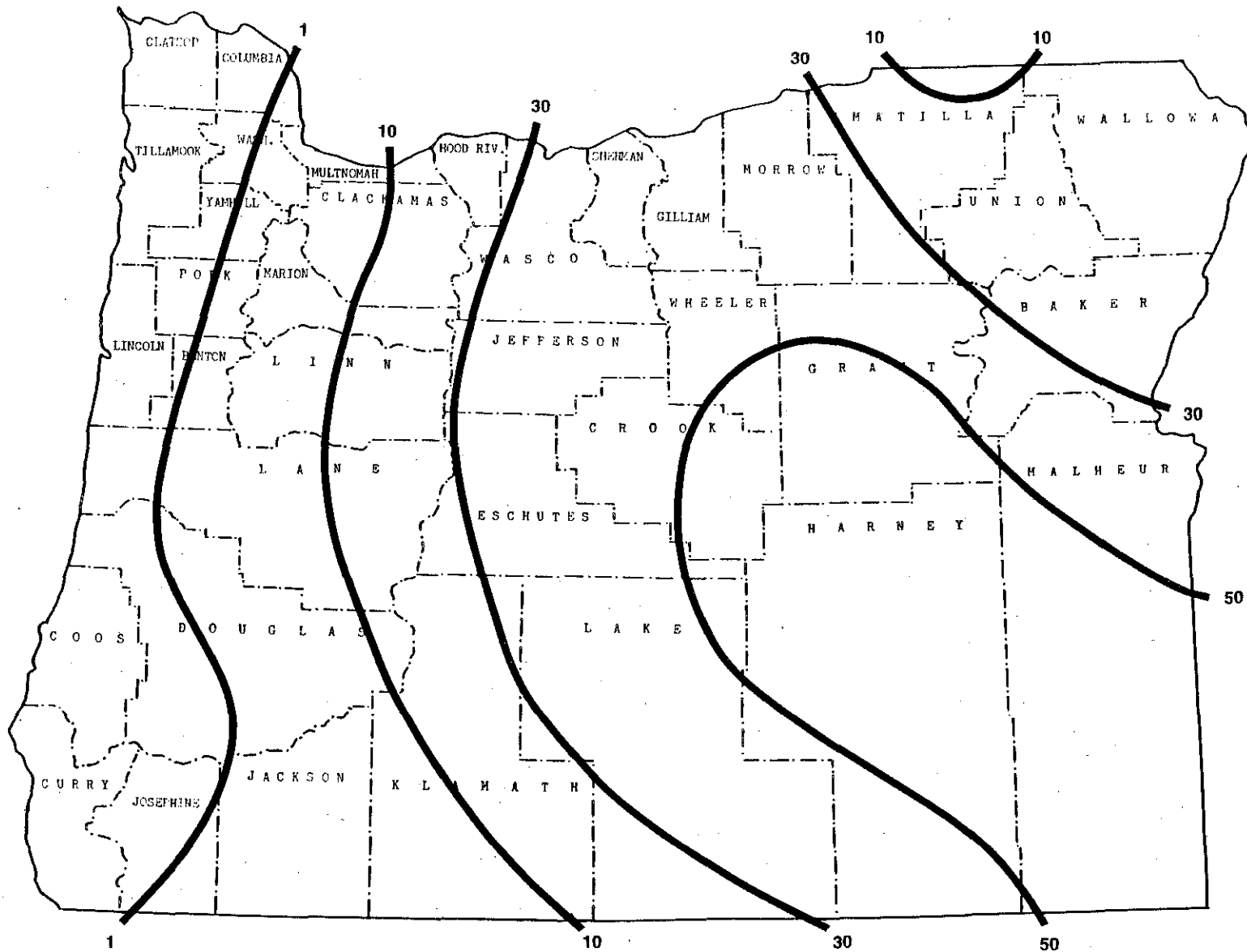


Figure 4-1.
Climatic Factor to be Used in
Particulate Mobility Matrix
(From Cowherd, et al, 1988)

Table 4-4. Erodibility factor.

Predominant Soil Textural Class	Erodibility (tons/acre/year)
Gravelly soil	22
Coarse sand	73
Very fine, fine, or medium sand	220
Loamy sand	134
Sandy loam	86
Clay	86
Silty clay	86
Loam	56
Sandy clay loam	56
Sandy clay	56
Silt loam	47
Clay loam	47
Silty clay loam	38
Silt	38

(Adapted from Cowherd et al, 1988)

Table 4-5. Particulate mobility potential.

Erodibility (tons/acre/year)	Climatic Factor			
	< 1	1 - 10	10 - 30	30 - 50
0-30	.5	.5	.5	1
30-80	1	1	1	2
80-130	1	1	2	3
130-170	1	2	3	4
170-220	2	3	4	5

4.2.2 Mobility Potential for the Environmental Route

Using the substance(s) chosen for environmental toxicity, evaluate mobility for these substances in the same manner as for human health (Section 4.2.1). Enter the environmental route mobility score on Worksheet 5.

4.3 TARGETS: HUMAN HEALTH ROUTE

The proximity of hazardous substances to humans is scored using three target data elements. In determining distance, use the shortest straight line distance from the contaminant's location, not the property boundary, to the target of concern.

4.3.1 Distance to Nearest Population

The distance to the nearest population is the distance to the nearest dwelling, public building, park, or other area outside the facility boundary where people may potentially be exposed to hazardous substances daily or seasonally. Use the distances on Table 4-6 to determine this score. Enter the score on Worksheet 5.

Table 4-6. Distance to nearest population.

Distance (feet)	Scores
0-500	10
> 500-1,000	8
> 1,000-1,500	6
> 1,500-2,000	4
> 2,000-2,640	2
> 2,640	0

4.3.2 Population Within 0.5 Mile

The population within a 0.5-mile radius of the site should be estimated using the most recent U.S. Census data available. Or count the buildings on a 7.5-minute topographic map and assume the most recent estimate of numbers of people per household in the county provided by the Portland State University Center for Population Research. Use Table 4-7 to determine the score to enter on Worksheet 5.

Table 4-7. Population within 0.5 mile scores.

Population	Score
0	0
> 0-25	1
> 25-50	2
> 50-100	3
> 100-200	4
> 200-300	5
> 300-500	6
> 500-700	7
> 700-900	8
> 900-1,100	9
> 1,100-1,300	10
> 1,300-1,500	11
> 1,500-1,700	12
> 1,700-1,900	13
> 1,900-2,100	14
> 2,100-2,300	15
> 2,300-2,500	16
> 2,500-5,000	17
> 5,000-7,500	18
> 7,500-10,000	19
> 10,000	20

4.3.3 Predominant Non-Residential Land Use

Assign a score from Table 4-8 for the predominant non-residential land use classification within a 0.5-mile radius of the site.

Table 4-8. Scores for predominant non-residential land use within 0.5-mile.

Predominant Land Use Within 0.5-Mile	Score
High density industrial/commercial areas inside a 0.5-mile radius of the site. (In large urban/industrial areas, this generally includes areas of major work force concentrations such as high-density downtown office buildings typical of larger cities such as Portland, or Eugene.	10
Light industrial/moderately dense commercial areas inside a 0.5-mile radius of the site. (This generally includes areas zoned for light industrial use, one- and two-story office buildings.)	8
Low-density commercial areas inside a 0.5-mile radius of the site. (These could be store-front commercial areas in mixed commercial residential neighborhoods); <i>or</i> intensive seasonal use areas (such as parks).	5
No industrial or commercial areas (these could include high- and low-density residential areas with no storefront or mixed commercial residential neighborhoods) within 0.5 mile of the site, <i>or</i> areas with moderate seasonal use inside a 0.5 mile radius of the site.	3
Isolated areas with little or no working transient population present within 0.5 mile.	0

4.4 TARGETS: ENVIRONMENTAL ROUTE

4.4.1 Distance to Nearest Sensitive Environment

Determine whether any of the sensitive environments listed in Table 4-9 are present within a radius of 0.5 mile of the site, use the following data sources:

1. BLM Areas of Critical Environmental Concern
2. U.S. Fish and Wildlife Coastal Ecological Inventory
3. U.S. Fish and Wildlife Service Wetlands Inventory
4. 7.5 Minute Topographic Map (USGS Quadrangle Series)
5. Local Oregon Fish and Wildlife personnel for endangered species habitat
6. BLM Oregon State Office
7. Road Maps

Table 4-9. Sensitive environments^a

-
- Critical habitat for federally designated endangered or threatened species (5)
 - National Park, Monument, National Marine Sanctuary, National Recreation Area, National Wildlife Refuge, National Forest (campgrounds, recreation areas, game management areas, wildlife management areas) (1, 2, 4, 7)
 - Designated Federal Wilderness Area (1, 4, 7)
 - Wetlands (freshwater, estuarine, or coastal-5-acre minimum) (3)
 - Wild and scenic rivers (2, 6)
 - State Parks (1, 4, 7)
 - State Wildlife Refuges (1, 4, 7)
 - Habitat designated for State endangered species (5)
 - Fisheries resources, if designated in Section 2.3.4 of the surface water pathway
 - State designated natural areas (4, 7)
 - County or municipal parks (4, 7)
-

^aThe number(s) in parentheses adjacent to the sensitive environment corresponds to the number of the data source listed above.

Measure the shortest straight line distance to the nearest sensitive environment from the contaminant's location, not the property boundary. **Do not** use the same distance entered on the Surface Water Worksheet 4. Use the linear distance from the site to the sensitive environment. Use Table 4-10 to determine the score for the distance calculated and record on Worksheet 5.

Table 4-10. Distance to nearest sensitive environment scores.

Distance (feet)	Score
0-500	15
> 500-1,000	12
> 1,000-1,500	9
> 1,500-2,000	6
> 2,000-2,640	3
> 2,640	0

4.5 RELEASE

Release of a hazardous substance to air from substances present at the site may be defined as follows:

Direct visual evidence: Examples of direct visual evidence are these:

- Colored gases being released from a waste pile containing known hazardous substances
- Dead or stressed vegetation that can be linked with a substance release
- Windblown dust from a waste pile containing known hazardous substances.

Documented releases: Examples of documented releases include documented discharges to the air from vessels or containers due to failure of valves, pipes, venting systems, or related equipment used to contain pressurized contents or volatile substances containing hazardous constituents.

Analytical evidence: The release documented must be at least 3 times the expected or measured background concentration to account for sampling and analytical error and the natural variation in background. Expected background concentrations may be obtained using regional air monitoring data. For substances where the environmental background is expected to be greater than detection limits, a release may be verified when the substance is present at 3 times the site specific or regional background or more.

Where the background concentration of a substance is expected to be below detection limits, a release may be verified when the substance is present at a minimum of 3 times the quantification limit (not the detection limit). Samples must include specific substance characterization or evidence from a field analytical screening device. If field analytical devices such as an organic vapor analyzer or photoionization detector are used, evidence must be provided that the source of total organic vapors detected is from hazardous substances at the site and not from interference sources, such as motor vehicle exhaust.

Detectable odors: Known sources must be identifiable and analytical data must be available.

(Note: Air discharges which are "permitted or authorized releases" are not scored. These releases include releases in substantial compliance with a permit issued by DEQ, EPA, or Lane County Regional Air Pollution Authority and releases in conformance with DEQ or EPA rules or the provisions of the State Implementation Plan.)

Where a release has occurred, enter a score of 5 on Worksheet 5. Where no verified release is documented, enter a score of "0" on Worksheet 5.

5. GROUND WATER PATHWAY (Worksheet 6)

The ground water pathway includes only one route: ground water-human health. Score the route using the instructions presented below. Enter the data and scores for the route on Worksheet 6.

5.1 SOURCE CHARACTERISTICS

To score the ground water human health route, first identify the hazardous substance release areas of concern to the route and the hazardous substances present within those areas. The release areas of concern should already be listed at the bottom of Worksheet 1. Review the list of substances present in the release areas and determine which are of concern to the ground water pathway. On Worksheet 6 list the hazardous substances under Human Toxicity.

If discharge of hazardous substances to surface water from ground water contaminated by a subsurface release is verified, see Attachment C for scoring instructions for the air, surface water, and direct contact pathways.

5.1.1 Source Quantity

Estimate the total source quantity for the ground water pathway using the information on Worksheets 1 and 2 (see Sections 1.1.6 and 2.3 for a related discussion). Sum the quantities for the hazardous substance release areas. List the quantities summed and the total quantity on Worksheet 6 under Source Quantity. Assign scores for source quantity as shown in Table 5-1. Use Table 5-1 to assign a score for landfills.

For sites with multiple hazardous substance release areas with differing units of measure, use the following conversion factors: 1.5 tons = 1 cubic yard = 4 drums = 200 gallons.

Table 5-1. Ground water pathway source quantity scores.

Gallons	Cubic Yards	Tons	Drums	Score
1-500	1-5	0-2	1-10	3
501-5,000	6-25	2.1-20	11-100	6
5,001-125,000	26-625	21-200	101-2,500	9
125,001-3.0 mil	626-15,600	201-1,000	2,501-10,000	12
> 3.0 mil	> 15,600	> 1,000	> 10,000	15

For quantity determinations based on contaminated soils, use Table 5-2. Assume a 3-foot depth of contamination to calculate the volume of soil, if depth is unknown.

Table 5-2. Source quantity scores for contaminated soils.

Cubic Yards	Score
1-100	3
101-5,000	6
5,001-100,000	9
100,001-500,000	12
> 500,000	15

If contaminated soil quantities are to be combined with other waste quantities (measured in gallons, tons, or drums) on the site, convert all other waste quantities to cubic yards and then add them. Use Table 5-1 to find a final score for quantity, and record it on Worksheet 6.

If no determination of quantity can be made, a default score of 3 should be entered on Worksheet 6.

5.1.2 Containment

Containment scores should be assigned using the criteria outlined in Table B-3 in Attachment B. The release areas and containment scores for each should already be listed on Worksheet 2. Obtain the highest score from Worksheet 2 and record it on Worksheet 6. If Worksheet 3 was used because multiple areas with different toxicity and mobility are present, obtain from Worksheet 3 the containment score for the release area and hazardous substance combination with the highest toxicity/containment product. Enter the containment score on Worksheet 6.

5.1.3 Toxicity

Components of the toxicity data element for the ground water-human health route include several kinds of toxicity which measure the effects of exposure through ingestion (oral exposure route). They include acute and chronic oral toxicity, oral carcinogenic potency factors, EPA weight of evidence class for carcinogenicity, and human developmental and reproductive toxicity for ingestion.

For each hazardous substance listed on Worksheet 6, obtain the oral toxicity score from the Oregon Hazardous Substance Database (a maximum 14 points for any one substance) and obtain the mobility score as described in Section 5.2.1. Multiply the toxicity score by the mobility score for each hazardous substance to obtain the toxicity/mobility product. The final toxicity score to enter on the worksheet is the toxicity score for the substance with the highest toxicity/mobility product. If more than one substance has the highest toxicity/mobility product, the substance with the highest toxicity score should be used for scoring purposes. For example:

<u>Substance</u>	<u>Toxicity</u>	<u>Mobility</u>	<u>Toxicity/Mobility Product</u>
Compound 1	6	5	30
Compound 2	10	3	30
Compound 3	7	3	21
Compound 4	10	2	20
Compound 5	10	1	10
Compound 6	3	5	15

Compound 1 and Compound 2 both have the highest toxicity/mobility product (30). Compound 2 would be chosen for scoring because it has the highest toxicity score (10). In this example, a toxicity score of 10 and a mobility score of 3 would be entered on Worksheet 6. One additional bonus point would then be given for toxicity because three substances have toxicity scores of 10 or greater. Therefore, the overall toxicity score is 11. For a description of how the toxicity score for each hazardous substance is assigned in the database, see Section 1.1.3.

5.2 MIGRATION POTENTIAL

5.2.1 Mobility

Mobility is a measure of the tendency of a substance to migrate through soil to ground water. Use Table 5-3 to score mobility for inorganic substances, and Table 5-4 for organic substances and for inorganic substances not listed in Table 5-3.

To determine the final mobility score to enter on Worksheet 6, review the substances used for human toxicity scoring. Then use Table 5-3 or 5-4 to determine the mobility of each substance. Enter these scores in the chart on Worksheet 6. Multiply the compound-specific toxicity score by its mobility score. The final mobility score to enter on the worksheet is the mobility score for the substance with the highest toxicity/mobility product (See Section 5.1.3 for a related discussion). For example:

<u>Substance</u>	<u>Toxicity</u>	<u>Mobility</u>	<u>Toxicity/Mobility Product</u>
Compound 1	6	5	30
Compound 2	10	3	30
Compound 3	7	3	21

In this example, a mobility score of 3 and a toxicity score of 10 would be entered on Worksheet 6.

Table 5-3. Mobility scores for cations and anions.^{ab}

Cations and Anions	Coefficient of Aqueous Migration (K)	Mobility Score
Aluminum, Chromium, Thallium, Thorium, Tin	Less than 0.1	1
Barium, Beryllium, Cobalt, Copper, Lead, Manganese, Nickel, Phosphorus	0.1 to 1.0	3
Antimony, Arsenic, Boron, Bormine, Cadmium, Fluorine, Iodine, Magnesium, Mercury, Molybdenum, Radium, Radon, Selenium, Silver, Uranium, Vanadium, Zinc	Greater than 1.0	5

^a For chromium, nickel, lead, cobalt, and copper, increase the mobility score by one point if:

- Evidence of acidic leachate is present (pH < 3)

OR

- The metals are present in solution in liquid hazardous substances at the site (for example, plating wastes).

^b Decrease by one the assigned mobility score for a metal in areas with alkaline soils (pH > 8), if it can be determined that the metal is present in solid form. Do not assign a score less than 1. (Note: This does not apply to selenium and arsenic, which are more mobile under alkaline conditions).

Table 5-4. Mobility scores for organic substances and inorganic substances not listed in Table 5-3.^{ab}

Water Solubility Range (mg/l)	Mobility Score
≤ 10 or unknown	1
> 10-100	2
> 100-1,000	3
> 1,000	5

^a If the concentration of a substance in a mixture is known, and indicates a higher concentration than the solubility in water, substitute the substance concentration (mg/l) for the solubility in the above table.

^b If the substance or material is present as a free liquid (as a separate layer) in the aquifer, always assign the maximum score (5), regardless of the compound's solubility.

Note: that if the solubility is used to assign the mobility score, the score can be obtained from the Hazardous Substance Database. This is not the case for substances on Table 5-3 or if the concentration of the substance is used for Table 5-4.

If solubility data are not available for a particular hazardous substance, assign a default score of 1 to that substance for ground water mobility.

5.2.2 Net Precipitation

This is a measure of total precipitation minus total evapotranspiration. Use monthly data for calculating this score, using the total precipitation and evapotranspiration for all 12 months of the year. Where monthly net precipitation is less than zero, add zero for that month for net precipitation. Obtain the data from the following references: Climatology of the United States No. 81 (By State) and Cuenca, H. et al., Consumptive Use and Net Irrigation Requirements for Oregon. Ranges of net annual precipitation are shown in Table 5-5. Record that score on the Worksheet 6.

Table 5-5. Net precipitation scores.

Inches	Score
0	0
0.1-10	1
10.1-20	2
20.1-30	3
30.1-40	4
> 40.1	5

5.2.3 Subsurface Hydraulic Conductivity

Subsurface hydraulic conductivity measures how easily substances move from the land surface to the aquifer. Where information regarding multiple subsurface layers is available, use the least permeable layer to score if it appears to be continuous under the site and free of fractures or faults and has a minimum thickness of 15 feet. If this layer is not thought to be continuous or free of fractures and faults, use information regarding the most prevalent geologic materials at the site. When on-site information is not available, data may be obtained from several references including U.S.G.S. water resources publications, Oregon Department of Geology and Mineral Industries publications, and Soil Conservation Service Soil Surveys. Use Table 5-6 to assign a score. Enter the score on Worksheet 6.

Table 5-6. Subsurface hydraulic conductivity scores.

Description	Score
Unfractured igneous or metamorphic rock (including dense, competent basalt) unfractured shales, claystones, mudstones, clay, slightly silty clay, low permeability till	1
Clayey silt, silty clay, moderately permeable till, silty shale, siltstone, slightly fractured igneous or metamorphic rock, welded/lithified volcanic rock	2
Sandy silt, silty sand, permeable till, clayey sand, cemented sandstone, fractured rock, shale, porous volcanic rock	3
Well-sorted sand, sand and gravel, gravel, highly fractured rock, lava tubes, slightly silty sand, poorly lithified sandstone	4

5.2.4 Vertical Depth to Ground Water

This depth is measured from the ground surface or from the deepest point of known contamination to the water table. For example, depth from the bottom of a landfill or surface impoundment to the water table would be measured. Assign a score from Table 5-7 and record it on Worksheet 6. Where ground water quality data indicate a verified release to ground water, record the maximum score (8) on Worksheet 6.

Table 5-7. Vertical depth to ground water scores.

Depth (feet)	Score
0-25	8
> 25-50	6
> 50-100	4
> 100-200	3
> 200-300	2
> 300	1

5.3 TARGETS: HUMAN HEALTH ROUTE

For interconnected aquifers, use the most conservative (highest) ground water usage score and the distance to the nearest drinking water well in either aquifer. Population and acres irrigated should be added for each interconnected aquifer and scores assigned based on the sum of all services. For ground water not interconnected with the shallow ground water, target scores are based on the use of the uppermost ground water that may be affected by the site.

5.3.1 Ground Water Usage

The uses or potential uses of an aquifer determine the populations that may be at risk. Public water supplies (greater than three connections or 10 users) are defined by the Drinking Water Section of the Oregon Health Division. From Table 5-8 find the score for ground water use within 2 miles and record it on Worksheet 6. If no information is available to the contrary, assume that no alternate supplies are available.

Table 5-8. Ground water usage scores.

Definition	Score
Federally-designed sole source aquifer	10
Public supply (greater than 3 connections or 10 users) no alternate unthreatened sources available with minimal hookups	9
Private supply, no alternate unthreatened sources available	5
Public supply, but alternate sources available with minimum hookup requirements	4
Private supply, but alternate sources available with minimum hookup requirements	4
Ground water used solely for irrigation of food crops or livestock watering	3
Ground water not used, but useable	2
Ground water used solely for irrigation of non-food vegetation crops (parks, golf courses, tree farms and nurseries)	2
Ground water not usable (for example, high dissolved solids or brackish). This does not include ground water made unusable due to contamination - this should be scored as it was used prior to contamination	1

5.3.2 Distance to Nearest Drinking Water Well

The distance to the nearest drinking water well should be determined using available well logs and public supply information. Use the distances in Table 5-9 to determine the score and record it on Worksheet 6. Measure the distance from the boundary of hazardous substances to the well, not from the center of site or property boundary.

If the nearest well is located within the contaminated area or is contaminated with a hazardous substance attributed to the site, the score recorded on Worksheet 6 should be the maximum (5). Wells at a facility that are not in the contaminated area should be scored based on the minimum distance between the known extent of contamination and the well. Wells that have been abandoned, and are documented as such, are not scored.

Table 5-9. Scores for linear distance to nearest drinking water well.

Distance (feet)	Score
≤ 2,640	5
> 2,640-5,280	3
> 5,280-10,560	1
> 10,560	0

5.3.3 Population Served by Drinking Water Wells

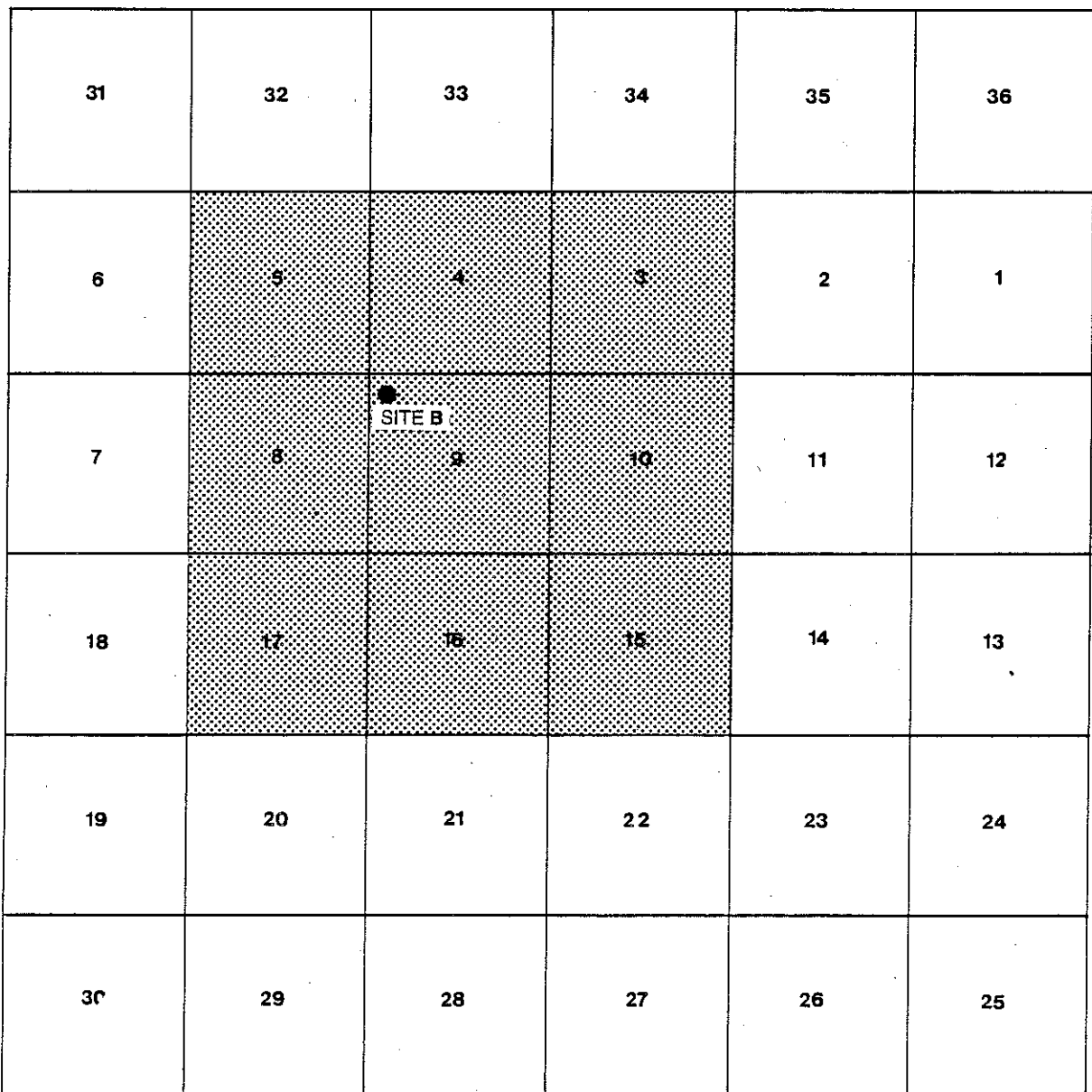
Determine the population served by private drinking water wells located in the same section in which the site is located, and in the adjacent sections (Figure 5-1) using well logs from the Oregon Department of Water Resources, Field Operations Division. If a site is located on a boundary between sections, add any additional appropriate sections to the search up to 2 miles from the site. For private wells, estimate the population served by each well by using the most current estimate of population per household for the county in which the site is located. The Portland State University Center for Population Research has these data.

For public supply wells, obtain data on the well locations using well logs and the OWRIS database. Contact the Drinking Water Section of the Oregon Health Division to determine the number of users on the public drinking water system. If ground water users have an alternate interim supply of water and the alternate supply is not located within the 9 square miles surrounding the site (see Figure 5-1), these users are **not** counted in the population served.

Use Table 5-10 to determine the score for population and record it on Worksheet 6. If active wells are known to exist but apparently not accounted for in the well log search, these wells should be added to the wells counted in the well log search.

Table 5-10. Population served by drinking water from wells scores.

Population	Score
0	0
> 0-25	1
> 25-50	2
> 50-100	3
> 100-200	4
> 200-300	5
> 300-500	6
> 500-700	7
> 700-900	8
> 900-1,100	19
> 1,100-1,300	10
> 1,300-1,500	11
> 1,500-1,700	12
> 1,700-1,900	13
> 1,900-2,100	14
> 2,100-2,300	15
> 2,300-2,500	16
> 2,500-5,000	17
> 5,000-7,500	18
>7,500-10,000	19
>10,000	20



T Township

R Range

9 Section Number



Location of Wells to be counted as Targets in the Ground Water Route

Figure 5-1.
Location of Sections (Townships, Range, Section)
To Include in Site Scoring Procedure Well Log Search

5.3.4 Acreage Irrigated by Wells

Determine from the OWRIS database the acreage irrigated by wells located within the same section as the site and adjacent sections (see Figure 5-1). Note that the wells must be within the same section as the site or adjacent sections; the acreage may be anywhere. The OWRIS database notes the location of the wells, not the location of acreage. The acreage irrigated by each well is listed in the database. The acreage for both primary and supplemental water rights should be added to calculate the total acreage for the site. Use Table 5-11 to obtain a score and record it on Worksheet 6.

Table 5-11. Acreage irrigated by wells scores.

Acreage	Score
0	0
1-100	1
> 100-1,500	2
> 1,500-3,000	3
> 3,000-4,500	4
> 4,500	5

5.4 RELEASE

A release to the aquifer may be verified by one of the following:

Direct disposal or discharge into the aquifer: Information is available to document disposal or discharge of hazardous substances down an injection well or dry well.

Presence of a hazardous substance release area in the aquifer: The bottom of a hazardous substance release area is located below the top of the aquifer, or leaking containers are known to have been buried below the top of the aquifer.

Analytical evidence of a release from ground water monitoring wells at the site: For substances that may have a background concentration due to natural conditions (such as metals and other inorganic compounds), a release may be verified by the presence of the substance at three times the expected or measured background. Three times expected or measured background accounts for sampling and analytical error and the natural variation in background. If the substance is not detected in background samples, its presence at three times the quantification limit (not the detection limit) may be used to verify a release.

For hazardous substances not expected in background samples (such as synthetic organic chemicals), the presence of the compound in site samples may be used to verify a release, if the release can be attributed to on-site sources. If the substance is present in ground

water at the site at levels comparable to those found in the site vicinity but cannot be attributed to specific sources on-site, a release should **not** be verified.

(NOTE: If area-wide ground water contamination is the site being scored, above background would be verified without identification of the source.)

(NOTE: Where ground water contamination has been identified at a site, and seeps that discharge to surface waters or discharges directly to surface waters have been identified, the site should be scored with a release to **both** ground water and surface water. See Attachment C for additional scoring instructions.)

(NOTE: Discharges to ground water which are "permitted or authorized releases" are not scored).

If a release is verified, record a score of 5 on Worksheet 6. Otherwise, record a score of "0" on Worksheet 6.

6. DIRECT CONTACT PATHWAY (Worksheet 7)

The direct contact pathway includes only one route: direct contact-human health. However, the direct contact impact on the environment is addressed by adding bonus points to the overall site score. Use Worksheet 7 to score the data elements of the human health route and the bonus point addition for sensitive environments.

6.1 SOURCE CHARACTERISTICS

As with any pathway, the first step in scoring direct contact is to identify the hazardous substance release areas of concern to the pathway and the hazardous substances present within them. If hazardous substances on site are not available for direct contact, the route receives a "0" and Worksheet 7 is not used. If hazardous substances are present and direct contact is possible, the release areas of concern should be listed on Worksheet 1. Review the list of hazardous substances present in the release areas and determine which are of concern to the direct contact pathway. On Worksheet 7, list the hazardous substances chosen under Human Toxicity.

6.1.1 Source Quantity

Use the same approach used to obtain an estimate of source quantity in the air pathway (see Section 4.1.1).

6.1.2 Toxicity

Components of the toxicity data element for the direct contact-human health route include several kinds of toxicity which measure both the effect of exposure through ingestion (oral exposure route) and the effects of exposure through absorption through the skin. They include acute and chronic oral toxicity, oral carcinogenic potency factors, EPA weight of evidence class for carcinogenicity, human developmental and reproductive toxicity for ingestion, and chemicals likely to be absorbed via the skin. For the substances listed on Worksheet 7, obtain the direct contact toxicity score from the Oregon Hazardous Substances Database for each substance (A maximum of 14 points is possible for any one substance). One additional bonus point is assigned if three substances have scores of 10 or greater.

6.2 MIGRATION POTENTIAL

Accessibility is the only data element used in the migration potential module of the direct contact-human health route. Accessibility is used to evaluate the potential for humans to enter the site and contact hazardous substances directly rather than through air or water. Use Table 6-1 to determine the score for accessibility to enter on Worksheet 7.

Table 6-1. Site accessibility scores.

Site Condition	Mobility Score
No site control, such as fencing	10
Fencing around the contaminated area	5
Fencing and 24-hour security	1

6.3 TARGETS: HUMAN HEALTH ROUTE

The targets analysis for the direct contact-human health route includes consideration of activities on site or on adjacent properties that indicate the potential presence of sensitive populations, such as children.

6.3.1 Residences

If residences are located on the site or on adjacent property, enter 10 on Worksheet 7 for residences. The adjacent property line must be within 1,000 feet of the contaminated area for the residence to be considered. If residences are not present on the site or on adjacent property, or the adjacent property is greater than 1,000 feet from the contaminated area, enter "0" on Worksheet 7.

6.3.2 Other Structures or Activities

Other structures or activities to be considered as potential concerns for direct contact of humans with hazardous substances located on site are shown in Table 6-2. If any of the structures or activities listed in Table 6-2 are located on the site or on adjacent properties, enter 10 on Worksheet 7 for other structures. If not, enter "0" on Worksheet 7. The adjacent property line must be within 1,000 feet of the contaminated area for the structure to be considered. USGS 7.5-minute topographic maps, road maps, and site information can be used to locate direct contact structures and activities.

Table 6-2. Other structures or activities.

Parks
Schools
Day Care Facilities
Playgrounds
Fairgrounds

If other activities or structures not listed in Table 6-2 which are known to attract people are present within 1,000 feet of the contaminated area, enter 10 on Worksheet 7. Document the justification for this scoring.

6.4 TARGETS: ENVIRONMENTAL EVALUATION

The direct contact-environment evaluation considers only location of the site directly in a sensitive environment.

6.4.1 Sensitive Environments

If the site is located directly in a sensitive environment, enter "Y" on Worksheet 7 for sensitive environments. Table 6-3 presents the list of sensitive environments to be considered in site scoring. See Section 3.3.5 or 4.3.2 for which data sources to use to locate sensitive environments. If the site is not located in one of the sensitive environments listed in Table 6-3, enter "N" on Worksheet 7. This information is used to add bonus points to the overall site score and the environmental site score, where appropriate.

Table 6-3. Sensitive environments.

-
- Critical habitat for Federally designated endangered or threatened species
 - National Park, Monument, National Marine Sanctuary, National Recreation Area, National Wildlife Refuge, National Forest (campgrounds, recreation areas, game management areas, wildlife management areas)
 - Designated Federal Wilderness Area
 - Wetlands (freshwater, estuarine, or coastal - 5 acre minimum)
 - Wild and scenic rivers
 - State Parks
 - State Wildlife Refuges
 - Habitat designated for state endangered species
 - Fishery resources, if designated in Section 2.3.4 of the surface water pathway
 - State designated natural areas
 - County or municipal parks
-

7. SITE SCORING PROCEDURE EQUATIONS AND SCORES

Using the site scoring procedure, scorers calculate six route scores. From those six route scores, three site scores are generated: human health, environmental, and overall site score.

The six route scores are generated by entering data element scores into the route score equation. The route score equation weights equally the Source Characteristics Module and the sum of the remaining three modules. The equation is normalized to generate a maximum score of 100 points for four routes and 50 points for two routes (air-environmental and direct contact-human health).

The three site scores are generated by combining the appropriate route scores as described (see Section 7.2) and adding bonus points for the impact of direct contact on the environment when appropriate. The maximum score for each site score is normalized to 100.

7.1 ROUTE SCORES

Each route score is calculated using an equation that combines data element scores into module scores (Table 7-1) and then combines module scores to generate the route scores.

7.1.1 Source Characteristics Module

Surface Water, Air and Ground Water Pathways

In the Source Characteristics module for the surface water, air, and ground water pathways, the toxicity and containment data element scores are multiplied. The toxicity/contaminant product is added to the source quantity score to generate the Source Characteristics module score. Because containment and toxicity scores are multiplied, the Source Characteristics module score is proportional to both data elements. Therefore, well-contained substances will generate relatively low module scores, even with significant toxicity scores. Moderately or poorly contained substances will generate higher module scores for a given toxicity score, with the highest scores due to poorly contained, high toxicity substances.

The source quantity score is added to the product of containment and toxicity to elevate the module score for sites that have greater quantities of hazardous substances compared to sites with similar conditions but lesser contaminant amounts. The resulting Source Characteristics module score is multiplied by 50/165 to normalize it from "0" to 50.

Direct Contact Pathway

The direct contact-human health route Source Characteristics module is managed like that for the surface water, air, and ground water routes except that toxicity is not multiplied by containment. Containment is not a data element in the direct contact route but is considered before scoring. The route receives a zero if the hazardous substances are not at ground surface or in surface water and thereby unavailable for direct contact.

The resulting Source Characteristics module score in the direct contact route is multiplied by 50/30 to normalize the module's score from "0" to 50.

7.1.2 Migration Potential, Targets and Release Modules

The data elements in the Migration, Target, and Release modules are added to produce a score for all three modules. The resulting score is multiplied by 50 and divided by the maximum score for each route to normalize the summation of the three modules from "0" to 50.

7.1.3 Route Score

The summation of the Migration, Targets, and Release modules is multiplied by the Source Characteristics Module score to generate the route score. This equation generates a high route score only when the scores for all four modules are high. Intermediate scores are generated only when both the Source Characteristics module score and the sum of the Migration and Targets module scores are above the lower part of their possible ranges. A site with a low Source Characteristics module score or low migration and targets, or available receptors, will have a low score.

Two route scores (air-environmental and direct contact-human health) generated by this process are divided by 50 to normalize the possible route scores from "0" to 50. The remaining route scores are divided by 25 instead of 50 to normalize the possible route scores from "0" to 100.

7.2 Site Scores

Three site scores are generated by the Site Scoring Procedure: a human health score, an environmental score, and an overall site score.

The human health score is calculated by taking the maximum human health score of the four routes, and adding it to the average of the other three route scores:

$$\text{Human Health Score} = [\text{Max. Human Health Score} + (\Sigma \text{Other Route Scores}/3)]/1.8$$

The Environmental Score is produced by adding the two environmental route scores then adding 10 points if the site is located directly in a sensitive environment:

$$\text{Environmental Score} = (\text{Air Route Score} + \text{Surface Water Route Score} + \text{Direct Contact Environmental Bonus Points})/1.6$$

For both the human health and environmental scores the equation is divided by the appropriate number to normalize the scores to "0" to "100".

The overall site score is obtained by taking the maximum route score, adding to it the average of the other five routes, and adding 10 bonus points if the site is located directly in a sensitive environment. The maximum route score can be from any of the routes. The result is normalized to "0" to 100 by dividing by 1.9. Thus:

$$\text{Overall Site Score} = [\text{Maximum Route Score} + \Sigma \text{Other Routes}/5 + \text{Direct Contact Environmental Bonus Points}]/1.9$$

This Overall Site Score is used to provide a relative ranking of sites on the Inventory.

Table 7-1. Route equations for Inventory ranking with weighting and normalization factors.

Air Route - Human Targets

$$AIR_H = [(SOU_{AH} \cdot 50/165) \cdot ((MIG_{AH} + TAR_{AH} + REL_{AH}) \cdot 50/50)] / 25$$

where, AIR_H = Route Score for Air-Human Health

SOU_{AH} = (Human Toxicity • Containment) + Source Quantity

MIG_{AH} = Mobility

TAR_{AH} = Distance to Nearest Population + Population within one-half mile + Predominant Land Use

REL_{AH} = Release to Air

Air Route - Environmental Targets

$$AIR_E = [(SOU_{AE} \cdot 50/165) \cdot ((MIG_{AE} + TAR_{AE} + REL_{AE}) \cdot 50/25)] / 50$$

where, AIR_E = Route Score for Air-Environmental

SOU_{AE} = (Env. Toxicity • Containment) + Source Quantity

MIG_{AE} = Mobility

TAR_{AE} = Distance to Nearest Sensitive Environment

REL_{AE} = Release to Air

Surface Water Route - Human Targets

$$SW_H = [(SOU_{SH} \cdot 50/165) \cdot ((MIG_{SH} + TAR_{SH} + REL_{SH}) \cdot 50/64)] / 25$$

where, SW_H = Route Score for Surface Water-Human Health

SOU_{SH} = (Human Toxicity • Containment) + Source Quantity

MIG_{SH} = Soil Permeability + Rainfall Frequency + Floodplain + Slope

TAR_{SH} = Distance to Surface Water + Population Served by Surface Water + Acreage Irrigated + Recreational Use

REL_{SH} = Release to Surface Water

**Table 7-1. Route equations for Inventory ranking with weighting and normalization factors
(Continued)**

Surface Water Route - Environmental Targets

$$SW_E = [(SOU_{SE} \cdot 50/165) \cdot ((MIG_{SE} + TAR_{SE} + REL_{SE}) \cdot 50/64)] / 25$$

where, SW_E = Route Score for Surface Water-Environmental

SOU_{SE} = (Env. Toxicity • Contaminant) + Source Quantity

MIG_{SE} = Soil Permeability + Rainfall Frequency + Floodplain + Slope

TAR_{SE} = Distance to Surface Water + Distance to Fisheries Resource +
Distance to Sensitive Environment

REL_{SE} = Release to Surface Water

Ground Water Route - Human Targets

$$GW_H = [SOU_{GH} \cdot 50/165] \cdot ((MIG_{GH} + TAR_{GH} + REL_{GH}) \cdot 50/67) / 25$$

where, GW_H = Route Score for Ground Water-Human Health

SOU_{GH} = (Human Toxicity • Containment) + Source Quantity

MIG_{GH} = Mobility + Depth to Aquifer + Net Precipitation + Hydraulic
Conductivity

TAR_{GH} = Aquifer Use + Well Distance + Population Served + Acreage Irrigated

REL_{GH} = Release to the Ground Water

Direct Contact Route - Human Targets

$$DC_H = [(SOU_{DH} \cdot 50/30) \cdot ((MIG_{DH} + TAR_{GH}) \cdot 50/30)] / 50$$

where, DC_H = Route Score for Direct Contact - Human Health

SOU_{DH} = Toxicity + Source Quantity

MIG_{DH} = Accessibility

TAR_{GH} = Residences + Other Structures or Activities

8. WORKSHEETS FOR SCORING

The following eight worksheets are to be used to document the scoring for each site.

When the Site Scoring Procedure is completed, the route and site scores for each site should be entered on the cover sheet provided. In addition, on the cover sheet write in any special considerations that might increase or decrease the risk associated with the site and are not accounted for by the Site Scoring Procedure.

WORKSHEETS FOR SITE SCORING

Cover Sheet:	Scoring Package Summary Sheet (The Summary Sheet)
Worksheet 1:	Site Description
Worksheet 2:	Source Quantity and Containment Calculations
Worksheet 3:	Substance Characteristic Worksheet for Multiple Hazardous Substance Release Area Sites
Worksheet 4:	Surface Water Pathway
Worksheet 5:	Air Pathway
Worksheet 6:	Ground Water Pathway
Worksheet 7:	Direct Contact Pathway
Worksheet 8:	References Used in Scoring

**SITE SCORING PROCEDURE PACKAGE
SUMMARY SHEET**

Site Name: _____

Site I.D.#: _____

SITE SCORES:

Overall Score: _____

Overall Human Health: _____

Overall Environment: _____

ROUTE SCORES:

Ground Water/Human: _____

Surface Water/Human: _____

Air/Human: _____

Surface Water/Environmental: _____

Air/Environmental: _____

Direct Contact/Human: _____

Direct Contact Bonus Point(s) (Y/N): _____

Special Considerations: (include information not accounted for in the Site Scoring Procedure but that might increase or decrease the risk associated with the site)

WORKSHEET 1
SITE DESCRIPTION

Site Name: _____

Site Location: (City, County, or Section/Township/Range; describe adjacent property use)

Site Description: (include hazardous substance release areas and hazardous substances of concern)

Hazardous Substance Release Areas of Concern to each pathway (if all release areas are of concern to all pathways, check this box)

Surface Water: _____

Air: _____

Ground Water: _____

Direct Contact: _____

WORKSHEET 2
SOURCE QUANTITY AND CONTAINMENT CALCULATIONS

Source Quantity by Release Area:

<u>Release Area:</u>	<u>Quantity</u>
----------------------	-----------------

Containment:

<u>Release Area</u>	<u>Pathway</u>	<u>Score(s) including subscores</u>
---------------------	----------------	-------------------------------------

WORKSHEET 3
SUBSTANCE CHARACTERISTIC WORKSHEET
FOR MULTIPLE AREAS/SUBSTANCE SITES

	Combination 1	Combination 2	Combination 3
<p style="text-align: right;">Release Area:</p> <p><u>AIR PATHWAY</u></p> <p>Human Tox. Substance and Score (A):</p> <p>Env. Tox. Substance and Score (B):</p> <p>Containment Score (C):</p>			
<p>Air Human Tox/Cont. Product (A X C):</p> <p>Air Env. Tox/Cont. Product (B X C):</p>			
<p><u>SURFACE WATER (SW) PATHWAY</u></p> <p>Human Tox. Substance and Score (D):</p> <p>Env. Tox. Substance and Score (E):</p> <p>Containment Score (F):</p>			
<p>SW Human Tox/Cont. Product (D X F):</p> <p>SW Env. Tox./Cont. Product (E X F):</p>			
<p><u>GROUND WATER (GW) PATHWAY</u></p> <p>Human Tox. Substance and Score (G):</p> <p>Containment Score (H):</p>			
<p>GW Tox./Cont. Product (G X H):</p>			

WORKSHEET 4

SURFACE WATER PATHWAY

1. SOURCE CHARACTERISTICS

1.1 Source Quantity (see Worksheet 2) Source: _____ Score: _____

1.2 Containment _____ Source: _____ Score: _____
 Env. Route Containment (Worksheet 3) _____

List Hazardous Substance Release Area Scored (for example, landfill/spill)

1.3 Human Toxicity

	Substance	Score
1.		
2.		
3.		
4.		
5.		
6.		

Highest Toxicity Score: _____
 + Bonus Point: _____
 Total Toxicity Score: _____

1.4 Environmental Toxicity

	Compound	Acute Toxicity Score
1.		
2.		
3.		
4.		
5.		
6.		

Highest Score: _____

2. MIGRATION POTENTIAL

2.1 Surface Soil Permeability: _____ Source: _____ Score: _____

2.2 2-year, 24-hr rainfall (inches): _____ Source: A Score: _____

2.3 Flood Plain: _____ Source: B Score: _____

2.4 Terrain Slope: _____ Source: C Score: _____

WORKSHEET 4 (continued)
SURFACE WATER PATHWAY

3. TARGETS: HUMAN HEALTH ROUTE

3.1 Distance to Surface Water: _____ Source: _____ Score: _____

Name: _____

3.2 Population Served: _____ Source: D Score: _____

3.3 Acres Irrigated: _____ Source: E Score: _____

3.4 Recreational Uses

Type: Other _____ Source: F Score: _____

Boating _____ Source: _____ Score: _____

Overall _____ Source: F Score: _____

4. TARGETS: ENVIRONMENTAL ROUTE

4.1 Distance to Surface Water: See Section 3.1 above

4.2 Distance to Fishery Resource:

Anadromous (Y/N) _____

Resident 1 or 2 (Y/N) _____ Source: _____ Score: _____

Name of Fishery Resource: _____ Source: F Score: _____

Distance: _____ Source: _____ Score: _____

4.3 Distance of Nearest Sensitive Environment

Name: _____

Distance: _____ Source: C Score: _____

5. RELEASE:

If Yes: Substance/Concentration: _____

WORKSHEET 5 AIR PATHWAY

1. SOURCE CHARACTERISTICS

1.1 Source Quantity (see Worksheet 2) Source: _____ Score: _____

1.2 Containment _____ Source: _____ Score: _____
 Env. Route Containment (Wkst 3) _____ Source: _____ Score: _____
 List Hazardous Substance Release Area for each (for example, landfill)

(circle one: particulate, vapor)

1.3 Human Toxicity

Substance	Toxicity	Mobility*		Score	Toxicity x Mobility
		P/V	VP/HLC		
1.					
2.					
3.					
4.					
5.					
6.					

Enter toxicity score of substance with highest toxicity/mobility product: _____
 + Bonus Point: _____
 Total Toxicity Score: _____

1.4 Environmental Toxicity

Substance	Toxicity	Mobility	Toxicity x Mobility
1.			
2.			
3.			
4.			
5.			
6.			

Enter toxicity score of substance with highest toxicity/mobility product: _____

* P/V - indicate whether Particulate (P) or Vapor (V) transport is more likely.
 If vapor transport, indicate whether vapor pressure (VP) or Henry's Law Constant (HLC) is used.

WORKSHEET 5 (continued)

AIR PATHWAY

2. **MIGRATION POTENTIAL**

2.1 Mobility Potential for Human Health (from 1.3 above) Score: _____

Enter if used:

Predominant Soil Textural Class _____

Erodibility Factor (tons/acre/year) _____

Climatic Factor _____

2.2 Mobility Potential for Environment (from 1.4 above) Score: _____

3. **TARGETS: HUMAN HEALTH ROUTE**

3.1 Distance to Nearest Population: _____ Source: _____ Score: _____

3.2 Population Within 0.5 Mile: _____ Source: _____ Score: _____

3.3 Predominant Non-Residential Land Use: _____ Source: _____ Score: _____

4. **TARGETS: ENVIRONMENTAL ROUTE**

4.1 Distance to Nearest Sensitive Environment: _____ Source: _____ Score: _____

5. **RELEASE:** Source: _____ Score: _____

If Yes: Substance/Concentration: _____

WORKSHEET 6 GROUND WATER PATHWAY

1. SOURCE CHARACTERISTICS

1.1 Source Quantity (see Worksheet 2) Source: _____ Score: _____

1.2 Containment _____ Source: _____ Score: _____

List Hazardous Substance Release Area (for example, landfill, spill)

1.3 Human Toxicity

Substance	Toxicity	Mobility	Toxicity x Mobility
1.			
2.			
3.			
4.			
5.			
6.			

Enter toxicity score of substance with highest toxicity/mobility score: _____

+ Bonus Point: _____

Total Toxicity Score: _____

2. MIGRATION POTENTIAL

2.1 Mobility (see 1.3 above) Score: _____

2.2 Net precipitation (inches): _____ Source: G Score: _____

2.3 Hydraulic Conductivity: _____ Source: _____ Score: _____

2.4 Vertical Depth to Ground Water (feet): _____ Source: _____ Score: _____

3. TARGETS

3.1 Ground Water Usage: _____ Source: _____ Score: _____

3.2 Distance to Nearest Drinking Wells: _____ Source: _____ Score: _____

3.3 Population Served by Wells: _____ Source: D Score: _____

3.4 Acres Irrigated by Wells: _____ Source: E Score: _____

4. **RELEASE:** _____ Source: _____ Score: _____

If Yes: Substance/Concentration: _____

WORKSHEET 7

DIRECT CONTACT PATHWAY

1. SOURCE CHARACTERISTICS

1.1 Source Quantity (see Worksheet 2) Source: _____ Score: _____

1.2 Toxicity

	Score
1.	
2.	
3.	
4.	
5.	
6.	

+ Bonus Point: _____
Total Toxicity Score: _____

2. MIGRATION POTENTIAL SUBSTITUTE

2.1 Accessibility: _____ Source: _____ Score: _____

3. TARGETS

3.1 Residences Source: _____ Score: _____

3.2 Other Structures or Activities Source: _____ Score: _____

3.3 Located in Sensitive Environment Source: _____ Score: _____

WORKSHEET 8
DATA SOURCES (REFERENCES) USED IN SCORING

STANDARD SOURCES

- A. See Figure 3 in Manual.
- B. U.S. Federal Emergency Management Agency, National Flood Insurance Program, Flood Insurance Rate Maps. Map Title: _____
- C. USGS Topographic Map. List Quad Name: _____
- D. Oregon Department of Human Resources, Health Division, Drinking Water Systems Section database.
- E. Oregon Water Resources Department, Water Rights Information Service Database
- F. Oregon Fish and Wildlife Department, Administrative Section, Oregon Rivers Database
- G. Cuenca, et al. (1989) and NOAA, climatology of the United States, No. 81 (by state)

SITE SPECIFIC REFERENCES

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Attachments: (Add any additional references used in scoring that are not included in the PA document. For example, database printouts should be included.)

REFERENCES

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U.S. Bureau of Land Management, Areas of Critical Environmental Concern, Research Natural Areas and Outstanding Natural Areas, May, 1990.

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U.S. Environmental Protection Agency, Quality Criteria for Water, Office of Water Regulations and Standards, EPA 440/5-86-001, 1986.

U.S. Fish and Wildlife Service, National Wetlands Inventory Maps

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U.S. Federal Emergency Management Agency, National Flood Insurance Program, Flood Insurance Rate Maps

U.S. Water Engineering Research Laboratory (WERL) Database, Risk Reduction Engineering Laboratory,
Cincinnati, Ohio

ATTACHMENT A

DATA SOURCES (REFERENCES) USED IN THE SITE SCORING PROCEDURE

Table A-1. Data sources (References) used in the Site Scoring Procedure.

Name of Source	Description of Source	Where to Obtain Information on Source	Use of Source in Manual (Listed by Section)	Planned Update of Source
1. Oregon Hazardous Substance Database (OHSD)	Database provides substance toxicity data and toxicity score; also provides substance physical and chemical characteristics and scores	Oregon DEQ, Site Assessment Section, Portland	3.1.3, 3.1.4, 4.1.3, 4.1.4, 4.2.1, 5.1.3, 5.2.1, 6.2.1	Annual update.
2. USDA Soil conservation Service Soil Survey	Provides regional soil type information; information includes map as well as textual description	USDA Soil Conservation Service, State Soil Scientist, Portland,	3.2.1, 4.2.1, 5.2.3	Update is irregular.
3. Isopluvial Map	Map provides isopluvials of 2-yr, 24-hr precipitation in tenths of an inch. See Figure 3-1 in site scoring manual	National Climatic Data Center, Ashville, NC	3.2.2	Update planned 1995.
4. Flood Insurance Rate Maps	Maps provide floodplain data, scale varies: 1"=400', 1"=500', 1"-1000', 1"=2,000'	Oregon Land Conservation and Development Dept., Natural Hazards Coordinator, Salem; FIMA, Flood Map Distribution Center, Baltimore, MD	3.2.3	Update is irregular.
5. U.S. Geological Service 7.5 minute topographic map	Map provides topographic information, cultural information, location of sensitive environments, and location of surface water bodies. Quadrangle maps available for various areas; map scale: 1"=24,000"	USGS, Local stores	3.2.4, 3.3.1, 3.4.1, 3.4.2, 3.4.3, 4.3.1, 4.3.2, 4.4.1, 6.3.1, 6.3.2, 6.4.1	Maps generally updated every 10 years or on an as-needed basis.
6. Oregon Water Rights Information System (OWRIS)	Provides water rights information including owner name, source of supply, use of water, location of source, and acreage irrigated (and other additional information).	Oregon Dept. of Water Resources, Water Rights Division, Salem	3.3.2, 3.3.3, 5.3.3	Continuous for new additions.

Table A-1. Data sources used in the Site Scoring Procedure (Continued)

Name of Source	Description of Source	Where to Obtain Information on Source	Use of Source in Manual (Listed by Section)	Planned Update of Source
7. Oregon Health Division, Drinking Water Systems Section Database	Provides data on population served by public water supply systems.	Oregon Dept. of Human Resources, Health Division, Drinking Water Section, Portland	3.3.2, 5.3.1, 5.3.2, 5.3.3	Continuous for new additions.
8. Oregon Rivers Study Database	Provides fishery resource designation information: including anadromous or resident fish value; provides recreational use information including overall recreational use, boating and other	Oregon Dept. of Fish and Wildlife, Administrative Services Division, Portland	3.3.4, 3.4.2	Updates planned, schedule irregular.
9. BLM Areas of Critical Concern Map	Maps identify major federal and state lands and areas of critical concern; map scale: 1"=1,000,000"	Bureau of Land Management, Oregon State Office, ACEC Coordinator, Salem	3.4.3, 4.4.1, 6.4.1	Update planned June 1991, subsequent update on as-needed basis.
10. U.S. Fish and Wildlife Coastal Ecological Inventory	Maps provide coastal ecological information for various areas in Oregon; map scale: 1"=250,000"	USGS, Denver, CO; Portland State University Library	3.4.3, 4.4.1, 6.4.1	
11. National Wetlands Inventory Maps for Oregon	Maps identify wetlands in Oregon (minimum 5 acres)	U.S. Dept. of Fish and Wildlife, Wetlands Division, or Oregon Division of State Lands, Ptld	3.4.3, 4.4.1, 6.4.1	Update is irregular.
12. U.S. & Oregon State Fish & Wildlife Service Division of Endangered Species and Habitat Conservation	Identifies habitat designated for state and federal endangered species	U.S. Dept. of Fish and Wildlife Field Station (for federally designated) and Oregon Dept. of Fish and Wildlife Field Station (for State designated)	3.4.3, 4.4.1, 6.4.1	Update is irregular.

Table A-1. Data sources used in the Site Scoring Procedure (Continued)

Name of Source	Description of Source	Where to Obtain Information on Source	Use of Source in Manual (Listed by Section)	Planned Update of Source
13. BLM Oregon State Office	Map identifies wild and scenic rivers throughout State of Oregon	Oregon State BLM Office	3.4.3, 4.4.1, 6.4.1	Updated based on Congressional action; irregular
14. Road maps	Identifies location of some sensitive environments.	Local AAA, Oregon DOT, Salem	3.4.3, 4.4.1, 6.4.1	Both maps updated yearly (April)
15. U.S. Census Bureau	Provides population data.	U.S. Census Data Products Division, Portland State University (PSU) Center for Population Research, Portland	4.3.2	Updated every 10 years, next update: 2000
16. Portland State University Center for Population Research	Provides county population estimates.	PSU Center for Population Research, Portland	4.3.2, 5.3.3	Annual update.
17. State and USGS Water Resources Geologic Reports	Provides data on subsurface characteristics for hydraulic conductivity evaluation.	Oregon Dept. of Geology and Mineral Industries, USGS Water Resources, Portland	5.2.3	Not applicable.
18. Climatology of the United States No. 81 (By state)	Provides precipitation values for various locations within Oregon - issued monthly w/summaries issued yearly	National Climatic Data Center, Asheville, NC	5.2.2	Monthly update.
19. Cuenca, H. et al.	Provides monthly evapotranspiration values for various locations within the State of Oregon.	Author, Oregon State University	5.2.2	Updated in 10 years
20. Well logs	Provides indication of subsurface material and layering of geologic units, area well location information, and well use information.	Oregon Dept. of Water Resources, Field Operations Division, Salem	5.2.3, 5.3.2, 5.3.3	Continuous for new additions.

ATTACHMENT B
**CONTAINMENT SCORES FOR SURFACE WATER,
AIR, AND GROUND WATER PATHWAYS**

Surface Water Pathway Containment Scores

ATTACHMENT B

Table B-1. Surface water pathway containment scores.

	<u>Score</u>
A. <u>Landfills</u>	
Identify the type of run-on/runoff control systems present:	
Engineered, maintained run-on/runoff control system or engineered/maintained cover	0
Unmaintained run-on/runoff control system or cover	5
No run-on/runoff control or no cover	10

B. Surface Impoundments

Containment scores for surface impoundments are based on two aspects of hazardous substance release area conditions: dike integrity and freeboard. Use the following definitions and matrix to assign containment scores.

1. Definitions

Dike Integrity

Regularly Inspected and Maintained - actions taken at the site to assure dike integrity, including inspection and repair of any weaknesses or potential problems, such as erosion, slumping, or other failure of dike materials.

Unmaintained, Apparently Sound - regular inspection and maintenance activities do not occur, but there are no indications of dike failure, such as erosion or slumping of dike materials or seepage.

Unsound - evidence of dike failure exists; erosion, or slumping of dike materials or release of contents due to seepage or breaching of the dike.

Freeboard

Automatic Freeboard Maintained - automatic level control devices are present to assure at least 2 feet of freeboard are maintained in the hazardous substance release area.

Manual Freeboard Maintained - flow is manually controlled to the hazardous substance release area to assure that at least 2 feet of freeboard is maintained in that area.

Insufficient Freeboard - less than 2 feet of freeboard maintained in the hazardous substance release area. Evidence of insufficient freeboard may include overtopping due to overfilling or wave action, observed freeboard, observed stains on dikes marking past fluid levels in the impoundment. For example:

<u>Freeboard</u>	<u>Dike Condition</u>		
	<u>Inspected Maintained</u>	<u>Apparently Sound</u>	<u>Unsound</u>
Automatically Maintained	0	2	8
Manually Maintained	2	4	8
Insufficient	6	8	10

C. Drums and Small Containers

Score

Add component scores for the following two questions to obtain a score for containment.

1. What type of secondary containment system is present?
 - Secondary containment with capacity for total volume of containers 0
 - Secondary containment with capacity for at least 110% of volume of the largest container 2
 - No secondary containment, or secondary containment for < 110% of volume of the largest container 5
2. How are containers managed?
 - Containers stored in single or double layers on pallets or in racks 0
 - Containers in multiple layers, unstable stacks 2
 - Containers open, leaking, or over-turned 5

D. Storage Tanks Score

Add component scores for the following two questions to obtain a score for containment.

1. What type of secondary containment system is present?

Secondary containment with capacity for 110% of total volume of tanks	0
Secondary containment with capacity for at least 50% of volume of all tanks	2
No secondary containment, or secondary containment for < 50% of volume of tanks	5

2. How are tanks managed?

Tanks maintained with automatic level controls	0
Tanks maintained without automatic level controls	2
Tanks are unmaintained (evidence may include overfilling, corrosion, tank failure or failure of ancillary equipment such as pipes and pumps)	5

E. Waste Piles

Identify the type of run-on/runoff control system present:

- | | |
|--|----|
| Maintained, engineered run-on/runoff control or waste pile is located in an enclosed structure | 0 |
| Run-on/runoff control present, but in unknown condition; waste pile located outside | 4 |
| No run-on/runoff control; waste pile located outside | 10 |

F. Spills, Discharges, and Contaminated Soil

Containment scores for spills, discharges or contaminated soil are based on the presence of surface contamination at a site and run-on/runoff controls for contaminated areas.

(Note: Dry wells, drain fields, or leaking underground storage tanks are to be scored as surface contamination if spills/discharges have seeped to the surface. If contaminated soil has been excavated or disturbed and stored above grade, score the contamination as a waste pile.)

	<u>Score</u>
Spill, discharge, or contaminated soil occur only in the subsurface at the site (including dry wells; drain fields; leaking underground storage tanks; or contaminated soil that has been covered by clean soil, asphalt, or a plastic cap, or partially excavated and filled with clean soil)	0
Spill, discharge, or contaminated soil is present at the surface in an area with maintained run-on/runoff controls. (<u>Note</u> : storm drains that discharge to surface water without treatment are <u>not</u> runoff controls)	2
Spill, discharge, or contaminated soil at the surface with unmaintained run-on/runoff control	4
Spill, discharge, or contaminated soil at the surface with no run-on/runoff controls or unknown controls in a location where the surface slope prevents off-site migration.	5
Spill, discharge, or contaminated soil at the surface with no run-on/runoff control or unknown controls at location where surface slope allows off-site migration.	10

Air Pathway Containment Scores

Table B-2. Air pathway containment scores.

	<u>Score</u>
A. <u>Above-ground Tanks and Containers:</u> (Note: Evaluate intact below-ground containers or tanks as a landfill. Evaluate leaking underground storage tanks as spills/discharges.)	
Containers sealed and in sound condition and protected from deterioration by weather. Unvented tank or tank equipped with automatically controlled/alarm-equipped vapor control system.	0
Containers sealed and in sound condition, but not protected from weather. Tank with manually controlled vents, which may or may not have alarms.	3
Containers deteriorated (including: evidence of corrosion that may affect structural integrity, evidence of mechanical damage such as dents or punctures, evidence of improper unit construction such as poorly fitted joints or seals), but no evidence of leakage. Containers may or may not be protected from weather. Vented or uncovered tank; material undisturbed in tank.	8
Containers leaking or liquid visible. Containers may or may not be protected from weather. Uncovered tank with aeration, mixing or heating of tank contents.	10
B. <u>Landfills</u>	
The containment score assignment for landfills is based on the method of transport in the air pathway. If hazardous substance mobility will be assigned based on particulate transport, use the containment scoring methods below for <i>particulates</i> . For cases where hazardous substance mobility will be assigned based on vapor pressure or Henry's Law Constant, use the containment scoring method below for <i>vapor migration</i> .	
(Note: If contaminated materials have been excavated or disturbed and are stored above grade, the contaminated material is to be scored as a waste pile.)	
<u>Particulates</u>	
Uncontaminated soil cover > 6 inches thick present or discharge or spill occurred in subsurface only—(including dry wells, drain fields, and leaks from underground storage tanks)	0
Uncontaminated soil cover < 6 inches thick	5
No cover or contaminated spill used as cover	10

<u>Vapors</u>	<u>Score</u>
Uncontaminated soil cover > 6 inches thick <u>and</u> a functioning vapor recovery system <u>and</u> vapor treatment system.	0
No cover or cover < 6 inches thick, with a functioning vapor recovery system	4
Uncontaminated soil cover > 6 inches thick with no (or non functional) vapor recovery system or vapor treatment system	6
No cover and no vapor recovery system	10
C. <u>Waste Pile</u>	
Waste Pile located in fully enclosed, intact building	0
Waste Pile outdoors with intact, maintained cover	2
Waste Pile in non-intact building or three-sided, roofed structure	4
Waste Pile outdoors, with partial or unmaintained cover	8
Waste Pile outdoors, and uncovered	10
D. <u>Surface Impoundments</u>	
(Note: Score a dry surface impoundment as a waste pile.)	
Surface Impoundment with maintained cover. (Cover may include enclosure on top of the impoundment, floating objects used to decrease surface area or a floating additive [such as nonvolatile floating liquid] used to control volatilization.)	0
Surface Impoundment with no cover, but no mixing or agitation processes used.	8
Surface Impoundment with no cover, but mixing or agitation processes are present. These may include aeration, spraying, or other circulation processes.	10
E. <u>Spills, Discharges, and Soil Contamination</u>	
To determine the containment score for spills or areas of soil contamination at a site, the score assignment is based on the method of transport in the air pathway. If the hazardous substance mobility will be assigned based on particulate transport, use the containment scoring methods below for particulates.	
For cases where hazardous substance mobility will be assigned based on volatility or Henry's Law Constant, use the containment scoring method below for vapor migration.	

Score

(Note: If contaminated materials have been excavated or disturbed and are stored above grade, the contaminated material is to be scored as a waste pile.)

Particulates

Clean soil, cover >2 feet thick present; OR plastic cover or cap present that completely covers the contaminated soil, OR discharge or spill occurred in subsurface only (including dry wells, drain fields, and leaks from underground storage tanks) 0

Spill or surface contamination present in an area of limited susceptibility for particulate emissions, such as paved or vegetated areas 2

Cover or cap over spill <2 feet thick or contaminated soil present, but may allow some surface exposure of contaminated soil 4

No cover over contaminated soil or discharges/spills have occurred directly onto ground surface (including surface seeps from dry wells, drain fields, or underground tanks) 6

Vapors

Cover or cap >2 feet thick that completely covers contaminated soil, OR a discharge/spill that occurred in subsurface only (including dry wells, drain fields, and leaks from underground storage tanks with no surface seeps), and a functioning vapor recovery system and vapor treatment system present 0

Cover <2 feet thick over contaminated soil OR surface discharge/spill, and with a functioning vapor recovery system and vapor treatment system present 2

Uncontaminated soil cover >2 feet thick OR spill or discharge occurred in subsurface with no or non-functional vapor recovery system and vapor treatment system present 4

No cover or surface spill/discharge and no vapor recovery system or vapor treatment system present. (This category includes dry wells, drain fields, and underground tanks with releases that have reached the ground surface.) 6

Ground Water Pathway Containment Scores

Table B-3. Ground water pathway containment scores.

A. Landfills	<u>Score</u>
Add component scores for questions 1-4 to obtain a score for containment.	
1. What type of liner system is present?	
Double liner system, no evidence of improper installation or failure	0
Single liner with no evidence of improper installations or failures	1
No liner; or unknown if liner is present; or installed liners are defective or failing	3
2. What type of cover is present?	
Maintained engineered cover without ponding	0
Compacted soil or low permeability cover installed, but with poor or unknown maintenance performed	1
No cover; or ponding of water observed on top of area; or unknown if cover is present	2
3. What type of leachate collection system is present?	
Maintained, functioning	0
Present, but in unknown condition or not functioning	1
None, or unknown if any collection system is present	2
4. Are containers of liquids or bulk liquids (such as from a tank truck) known to have been disposed in the landfill?	
No liquids present	0
Possible free liquids in landfill	1
Free/bulk liquids documented to have been disposed	3

B. Surface Impoundments

Score

Add component scores for questions 1-4 to determine a containment score for surface impoundments.

1. What type of liner system is present?

Double liner system, no evidence of improper installation or failure. 0

Single liner with no evidence of improper installations or failures. 1

No liner; or unknown if liner is present; or installed liners are defective or failing. 3

2. What is the condition of diking for the impoundment?

Regularly inspected and maintained 0

Unmaintained, but apparently sound 1

Unsound, evidence of failure or leakage present or imminent 3

3. Is adequate freeboard maintained in the release area?

Sufficient freeboard (> 2 ft) automatically maintained 0

Sufficient freeboard (> 2 ft) manually maintained 1

Insufficient freeboard (liquid level within 2 feet of top of diking) 2

4. Is there any evidence of loss of fluid contents, through evaporation?

No evidence of losses 0

Mass balance or observed changes in fluid levels indicate possible releases to subsurface 2

C. Above-ground Containers and Tanks

Score

Add score for questions 1-3 to determine containment score for above-ground containers or tanks.

1. What type of containment system is present?

Containment system with capacity for total volume of containers or tanks	0
Containment system with capacity for at least 10% of total volume of containers or tanks	1
No containment system present, or containment with capacity less than 10% of total volume of containers or tanks	3

2. What type of base is present for the containment system?

Impervious base; regularly inspected and maintained	0
Impervious base; no evidence of failure, but not known to be regularly inspected or maintained	1
Impervious base with some evidence of problems (e.g., cracks), or semi-permeable construction (e.g., asphalt)	2
No base material present; or permeable base such as gravel; or base materials unknown	4

3. How are containers managed?

Containers stored in single layer, or in racks designed to hold containers or tanks	0
Containers stored in multiple layers, or overturned; open containers present, unstable stacking	1
Containers leaking in containment area	3

D. Waste Piles

Score

Add scores for questions 1-4 to obtain containment score for waste piles.

1. What type of liner/base is present?

Double liner, or waste pile located in a fully enclosed building with an impervious base 0

Single geomembrane or clay liner 1

No liner, or unknown whether liner is present 3

2. What type of cover is present?

Maintained cover or waste pile is located in a fully enclosed structure 0

Unmaintained cover, or waste pile is located in a roofed structure with three or fewer walls 1

No cover 2

3. What type of leachate collection system is present?

Maintained, functioning leachate collection system, or waste pile is located in a fully enclosed building 0

Present; unknown condition or not functioning 1

None; or unknown if collection system is present 2

4. What type of run-on/runoff control system is present?

Maintained, functioning system or waste pile is located in a fully enclosed building 0

Present, unknown condition or not functioning 1

None, or unknown if system is present 3

E. Spills, Discharges, and Contaminated Soil

Score

If contaminated soil has been excavated and stored above grade, score the stored soil as a waste pile.

Spills or discharges of soils or contaminated soil resulting in surficial soil contamination (<1 foot depth) and a cover or cap present over contaminated material	3
Spills or discharges of solids or contaminated soil due to surficial soil (< 1 foot depth) contamination and no cover present over contaminated material	4
Spills or discharges of solids or soil contamination from solid materials and contamination extending to a depth > 1 foot.	5
Spills or discharges of liquids or soil contamination due to liquid wastes and a functioning ground water and/or product recovery system in place	6
Spills or discharges of liquids or soil contamination due to liquid wastes and no ground water and/or product recovery system in place (including leaking underground storage tanks, dry wells, septic drainfields)	10

STATEMENT OF NEED FOR RULEMAKING

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

(1) Legal Authority

ORS 465.410, as amended by House Bill 3235 (Section 12, Chapter 485, Oregon Laws 1989) requires the Environmental Quality Commission to adopt rules to implement a site discovery program, including a procedure for ranking facilities on an Inventory of hazardous substances sites.

ORS 465.400(1) authorizes the Environmental Quality Commission to adopt rules, in accordance with the applicable provisions of ORS 183.310 to 183.550, necessary to carry out the provisions of ORS Chapter 465. In addition, ORS 468.020 authorizes the Commission to adopt such rules and standards as it considers necessary and proper in performing the functions vested by law in the Commission.

(2) Need for the Rule

ORS Chapter 465.410 requires the Environmental Quality Commission to adopt a procedure for ranking facilities on the Inventory of hazardous substances sites based on the short- and long-term threats they pose to public health and the environment.

(3) Principal Documents Relied Upon in this Rulemaking

ORS Chapter 465.

This document is available for review during normal business hours at the Department's office, 811 S. W. Sixth, 9th Floor, Portland, Oregon.

LAND USE CONSISTENCY

The proposed rules may affect land use; they are consistent with the Statewide Planning Goals.

The proposed rules are consistent with Goal 6. The rules provide a comparison of relative threats posed by sites on the Inventory. The publication of the facility rankings may indirectly improve the quality of the air, water and land resources by providing information to owners and operators and the public concerning relative threats posed by releases of hazardous substances and the need for further action to protect public health, safety, welfare, and the environment.

The rules do not appear to conflict with the other Goals.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any appropriate conflicts brought to our attention by local, state or federal authorities.

FISCAL AND ECONOMIC IMPACT

Proposed Actions:

The Department of Environmental Quality (Department) maintains an Inventory of facilities with confirmed releases of hazardous substances which require further investigation or cleanup to protect public health, safety, welfare, and the environment. The proposed rules establish procedures for ranking facilities on the Inventory based on the short- and long-term threats they pose to public health and the environment.

The ranking procedure evaluates the relative threats to public health and the environment associated with actual or potential releases of hazardous substances from a facility. The Department will use facility scores to help prioritize sites for further action at the conclusion of preliminary site assessments. The facility scores will also be published on the Inventory for public information.

Overall Economic Impacts:

The Department lists facilities on the Inventory at the conclusion of preliminary site assessments if they require further investigation or cleanup to protect public health and the environment. All facilities will be scored when added to the Inventory using the proposed ranking procedure. A facility score does not affect the decision to place a site on the Inventory.

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Nor does the facility ranking affect either the authority of the Department to respond to a release or the liability of any person for investigation or cleanup of a release. The existence of contamination at a facility, not its ranking, creates the need for investigation and cleanup -- or the "cloud" over the property that may affect property values and the ability to transfer or develop property or use it as collateral.

Nevertheless, facility rankings, whether high or low, may affect public perception of risk and thus property values. In addition, facility rankings may affect the timing of investigation or cleanup of the listed or neighboring property. To the extent that facility rankings have these effects, the rules will have fiscal or economic impacts on owners and operators of affected property and on the parties responsible for its investigation and cleanup. These persons may include public and private entities, large and small businesses, and local, state, or federal agencies.

ATTACHMENT C

**METHOD FOR SCORING DISCHARGE FROM
GROUND WATER TO SURFACE WATER**

Method for Scoring Discharge from Ground Water to Surface Water

The instructions in this Attachment apply if two conditions are met:

1. A release to surface water from ground water is verified, and
2. The original release and only release at the site was an entirely subsurface spill or release or the source of ground water contamination is unknown.

If both conditions are met, follow these guidelines:

1. Use information on the site and the extent of ground water contamination to score the groundwater pathway. Ground water pathway scoring should be consistent with the ground water pathway scoring of other sites.
2. Make the following assumptions for the surface water, air, and direct contact pathways:
 - a. The site location is the location of ground water discharge not the original location of the spill or release.
 - b. Source quantity calculations should be consistent with calculations for other sites. If the original quantity discharged from the subsurface source is known, that quantity should be used for source quantity. If the quantity is unknown, an estimate of the extent of contamination must be made or a default value of "3" should be used.
3. The surface water pathway:
 - a. Assign a containment score of "10."
 - b. Assign the migration data elements a score of "0."
 - c. Score the target module data elements assuming condition 2a above. Measure the distances from the ground water discharge location.
 - d. Score the release module as a verified release.
4. The air pathway:
 - a. Assign a containment score of "6."
 - b. Score only vapor mobility.
 - c. Score the target module data elements assuming condition 2a above. Measure the distances from the ground water discharge location.
 - d. **Do not** score the release module as a verified release unless a verified release can be documented.
5. The direct contact pathway:
 - a. Score the direct contact pathway because the discharge is at the surface.
 - b. Assign accessibility a score of "10" unless fencing is present.
 - c. Score the target module data elements assuming condition 2a above.

Proposed Inventory Ranking Rules

Hearing Dates: December 19, 1990

Comments Due: January 2, 1991

WHAT IS
PROPOSED:

The Department of Environmental Quality (Department) maintains an Inventory of facilities with confirmed releases of hazardous substances which require further investigation or cleanup to protect public health, safety, welfare, and the environment. The proposed Inventory ranking rules establish a procedure for ranking facilities on the Inventory based on the short- and long-term threats they pose to public health and the environment.

WHO IS
AFFECTED:

Owners and operators of property contaminated by hazardous substances, and other persons, including public and private entities, responsible for investigation and cleanup of releases of hazardous substances; and persons living near sites contaminated by hazardous substances.

WHAT ARE THE
HIGHLIGHTS:

- (a) The Inventory ranking rule, proposed OAR 340-122-450, establishes a process for scoring facilities using the Inventory Ranking Procedure (IRP), proposed Appendix A of the rule, and for publishing those scores on the Inventory.

The IRP establishes criteria for scoring facilities based on relative threats associated with actual or potential releases of hazardous substances from a facility. The IRP also serves as a users' manual with forms and instructions for assigning values to the factors incorporated in the scoring model and calculating facility scores.

- (b) Proposed amendments to the Inventory listing rule, OAR 340-122-440, establish a procedure for notifying owners and operators and providing opportunity for them to comment on their facility scores as sites are added to the Inventory.

WHAT IS THE
NEXT STEP:

The Environmental Quality Commission may adopt the proposed rules, modify those rules in response to comment, or decline to adopt rules. The Commission will consider the proposed new rule and rule revisions at its meeting in March, 1991.

HOW TO
COMMENT:

Public Hearings are scheduled for:

9:00 AM - Noon, Wednesday, December 19, 1990
DEQ's Portland Office - Executive Building
811 S. W. Sixth Avenue, Room 3A
Portland, Oregon 97204

Written comments should be sent to Debbie Bailey, Environmental Cleanup Division, Executive Building, 811 S. W. 6th Avenue, 9th Floor, Portland, Oregon 97204. Written comments should be received by January 2, 1991.

For more information, or to receive a copy of the proposed rules, call Dan Crouse at (503) 229-6821, or toll-free in Oregon, 1-800-452-4011.

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: February 6, 1991

TO: Environmental Quality Commission

FROM: Debbie Bailey, Hearings Officer

SUBJECT: Proposed Inventory Ranking Rule: Report on Public Hearing

Report on Hearing:

The Department of Environmental Quality conducted a public hearing on the Inventory Ranking Rules on December 19, 1990, from 9:00 A.M. to noon in Room 3A at the Department's headquarters in Portland. Four persons attended in addition to Department staff; two testified. The two persons who testified, Bruce Niss of the Portland Water Bureau and Quincy Sugarman of Oregon Student Public Research Interest Group, submitted written comment covering the same issues presented at the public hearing. The comments and the Department's response to those comments are presented in Attachment E.

1. Bruce Niss, Deputy Director for Water Quality and Environmental Policy, Portland Water Bureau, 1120 SW 5th Ave., Portland, Oregon 97204.
 - (a) The Department completed a credible job in preparing the ranking rule.
 - (b) The following statement on page 54 of the ground water route section of Appendix A does not adequately describe the management units that should be considered: "Do not include in the evaluation management units that are permitted and in substantial compliance with the permit or that are otherwise authorized by statute or regulation".
 - (c) The use of the Special Considerations Section results in subjective decisions. The subjective portion of the ranking should be applied as evenly as possible. A description should be provided as to how the data presented in the Special Considerations Section will be used in the ranking.

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January 14, 1991
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2. Quincy Sugarman, Environmental Advocate, Oregon Student Public Interest Research Group, 1536 SE 11th, Portland, Oregon 97204.
 - (a) A ranking system should be a useful tool in determining the allocation of limited department resources.
 - (b) The re-ranking, or re-scoring, of sites as they move through the remedial process would keep the list current for the public.
 - (c) The rankings, as determined at the conclusion of the preliminary assessment, will be used, among other factors, to prioritize sites for further investigation, removal or remedial action. It is important that the ranking system be one of the most prominent factors in those determinations.

The Department's responses to the above comments are presented in the Response to Comment: both commenters also submitted written comments that cover the issues presented at the public hearing.

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RESPONSE TO PUBLIC COMMENT ON
PROPOSED INVENTORY RANKING RULES
RECEIVED DECEMBER 1990 - JANUARY 1991

Six persons submitted comments on the proposed Inventory Ranking rules. Two persons commented at the public hearing and submitted written comments, two additional persons submitted written comments, and two persons commented over the telephone. The comments and the Department's response to comment are presented below. Note: The Department has changed the title of Appendix A from "Inventory Ranking Procedure" to "Inventory Ranking Rule, Site Scoring Procedure". This reflects more accurately the purpose of Appendix A. All references to the draft document in this report will use the new title.

Bruce Niss, Deputy Director for Water Quality and Environmental Policy, Portland Water Bureau, 1120 SW 5th Ave., Portland, Oregon 97204 (Public Hearing Testimony and Written Comment)

- (1) Comment: Even though a site has been cleaned up, it is entirely possible that concentrations of hazardous material will remain on-site that could be found at a future time to be chronically toxic. Thus, the Department should retain sufficient information for all sites to allow a review as new environmental protection criteria are set in the future.

Response: The Department intends to retain all relevant reports and documents for all sites in accordance with the Department's records retention requirements.

- (2) Comment: All information used to develop site scores should be retained in the site file for use by other agencies or jurisdictions in carrying out their public health protection responsibilities.

Response: The Department intends to retain all information used to develop the site scores in the site files.

- (3) Comment: The discussion of permitted waste management units on page 22 of the draft Site Scoring Procedure should make clear that permitted sites having historic releases should be evaluated and ranked on the inventory even if the site is presently in substantial compliance with it's permit.

Response: The definition of "permitted or authorized release" in the Glossary on Page vi of the Site Scoring Procedure has been expanded to clarify that deposition, accumulation, or migration of substances resulting from an otherwise permitted or authorized release is considered a release for scoring purposes. This expanded definition mirrors the criteria used to confirm releases for addition to the Inventory. A reference to the Glossary definition has also been added to the text of Appendix A where the term "permitted release" is used.

- (4) Comment: The Department should describe how the information presented in the "Special Considerations" category on Worksheet 1 of the Summary Score Sheet, (page 74 of the draft Manual) will be considered in prioritizing sites for further action. As currently explained, different scorers may not use the information consistently to score sites.

Response: The information presented in the "Special Considerations" section is not used in calculating site scores. The "Special Considerations" section is used to identify any characteristics of a site that are not addressed by the site scoring but suggest that the risks associated with the site are higher or lower than is represented by the score.

The Department will consider these special considerations along with site scores and other factors in prioritizing sites for further action. Other factors may include, for example, the availability of Department staff, potential costs of cleanup, cooperation of responsible parties, and public concern about contaminated facilities. The Department is not proposing a prioritization scheme weighting these various factors at this time. The Department does not believe such a scheme is required by Oregon's Environmental Cleanup Law or within the scope of this Inventory ranking rule.

- (5) Comment: In addition to making the site scores and information on the Inventory available for public review, the public should be advised of other new or additional information developed for each site that will affect the sites' priority.

Response: The Department will update the information on the Inventory quarterly. Other site information which may affect a site's priority for further action is maintained in site

files (see, for example, factors in response to comment 4). These files are open to the public, but the Department does not plan to establish a process to notify the public of updates to this file information. The Department currently provides site information tailored to the public's interest through fact sheets, news releases, public meetings and other methods throughout the environmental cleanup process.

- (6) Comment: The scoring procedure requires site interpretations to score certain factors. The Department should devise a procedure to periodically check or calibrate the scores assigned sites to eliminate this effect to the maximum extent.

Response: The Department recognizes that site scoring requires site interpretations, particularly in characterizing the sources on site. To help ensure that sites are scored consistently, the Department plans to incorporate a quality assurance review of site scoring packages before and after they are submitted to owners and operators for comment and before the site scores are finalized.

William Renfroe, Senior Project Environmental Specialist, Hart Crowser, Inc., Five Centerpointe Drive, Suite 240, Lake Oswego, Oregon 97035 (Written Comments)

- (7) Comment: The terms "inventory ranking" and "hazard ranking" appear to be used interchangeably in the notice, the Site Scoring Procedure, and the proposed rule. The terms should be used consistently.

Response: The term "hazard ranking" has been eliminated from the Inventory Ranking Rule including the Site Scoring Procedure, Appendix A.

- (8) Comment: Make all references to the purpose of preliminary assessments consistent with ORS 465.245, OAR 340-22-426 or the definition of preliminary assessment contained in the draft Site Scoring Procedure.

Response: The Department believes the term preliminary assessment is used consistently throughout the Site Scoring Procedure and site discovery statute and rules.

- (9) Comment: There is no quantitative discussion of the fiscal and economic impacts of the proposed rulemaking.

Response: Fiscal and economic impacts of the proposed rule on the public are addressed in the Fiscal and Economic Impact Statement included as Attachment B of the staff report supporting the Authorization for Rulemaking Hearing, proposed Inventory Ranking Rule, Agenda Item C, for the November 2, 1990 EQC meeting. See also Attachment B (Fiscal and Economic Impact Statement) of the staff report supporting adoption of the rule, March 11, 1991 EQC meeting. In addition, page A-6 of Preamble in Attachment A of the November 2 staff report includes the Department's estimate of the time required for the Department to complete final scoring packages. The Department does not believe that additional quantification is warranted.

- (10) Comment: The proposed rule does not estimate the cost to the owners and operators to review and comment on the draft Site Scoring Procedure score generated by DEQ.

Response: The rules do not impose any new requirements on owners or operators. In developing rules, the Department does not typically quantify costs for interested parties' optional review of Department actions. The Department thus has not attempted to quantify the review and comment costs to owners and operators or other persons who may choose to review or comment on site scores.

- (11) Comment: The proposed rule does not discuss the quality assurance/quality control or peer review procedures DEQ will implement prior to the issuance of draft scores.

Response: See Comment #6 above.

- (12) Comment: The references included in the Site Scoring Procedure and in the reference section are very specific. The Department should use the most currently available publications at the time of scoring.

Response: The Department intentionally chose very specific references in the Site Scoring Procedure to promote consistency in scoring and minimize the time required for preliminary assessment data collection. The Department will review annually the references and databases included in the Site Scoring Procedure and update them as appropriate. See also response to comment 13, below.

- (13) Comment: The rulemaking documents do not describe the quality, reliability, scope, or planned revisions to the various databases referenced in the manual for use in scoring sites. This type of description should be provided.

Response: The Site Scoring Procedure references several databases for use in site scoring including:

- (a) Oregon Water Resources Department Water Rights Information System database,
- (b) Oregon Department of Energy's Oregon Rivers Database,
- (c) Oregon Hazardous Substance Database, and
- (d) Oregon Department of Human Resources Drinking Water Systems Database.

A table has been added to the manual describing each database and the plans for updating. The Department has included a discussion of the quality and reliability of the databases in a background document, "Summary of Development of Proposed Inventory Ranking Procedure", available from the Department.

Douglas W. Coenen, Environmental Engineering Manager, Waste Management of North America, Inc., Mountain Region Satellite Office, 4020 Lake Washington Blvd. NE, Suite 310, Kirkland, Washington 98033. (Written Comment)

- (14) Comment: To avoid potential inconsistencies when applying the Site Scoring Procedure, the procedures for estimating source quantity for large volume sites should be clarified.

Response: The Site Scoring Procedure has been revised to clarify scoring for landfills and other large volume sites. For the surface water and air pathways, the source quantity will be determined by measuring areal extent and multiplying by 0.5 feet. It is assumed that only that upper surface volume will be available to the routes. For the ground water pathway the entire volume of the landfill will be used. The entire volume may be available through this pathway and it is not appropriate to estimate the quantity of "hazardous substances" within that volume. That quantity will vary considerably depending on the use and location of the landfill. Therefore, use of the entire volume for the ground water pathway is included in the procedure.

- (15) Comment: To avoid inconsistent application of the Site Scoring Procedure, an explicit definition of "functioning vapor collection system" should be included in the rule.

Response: Definitions of "vapor recovery system" and "vapor treatment system" have been added to the Site Scoring Procedure. The Air Route Containment data element has also been amended to include vapor recovery and vapor treatment systems in the containment options.

- (16) Comment: The source of the Coefficient of Aqueous Migration used to score the ground water mobility data element should be documented.

Response: Documentation has been added to the Site Scoring Procedure.

- (17) Comment: The mobility of metals will be dependent on the cation exchange capacity (CEC) of the aquifer material. Including CEC in the determination of the Mobility Value for cations and anions will provide a more realistic estimate of the mobility of these constituents in the ground water.

Response: Instructions have already been provided in the Site Scoring Procedure to modify the mobility of certain substances based on waste characteristics. Because site conditions are often not well characterized before the scoring, details on site-specific soil characteristics that may affect mobility, such as CEC and organic carbon content of soils, are often not available. Modifying the mobility score based on the chemical characteristics of the substances and easily measured parameters such as pH probably most fairly represents the mobility of these substances at the time a PA is carried out.

- (18) Comment: The Air Route Environmental equation on page 18 includes two target data element factors (TAR_{AE}). The maximum possible score for the route is 100 as presented in the Table, however, the text (on page A-15) states that the maximum score will be 50.

Response: The duplication of the TAR_{AE} in the equation has been corrected and the equation has been modified to reflect a maximum score of 50.

- (19) Comment: The Direct Contact - Human Targets route score results in a maximum possible score of 100. However, page A-15 of the Preamble states that the Direct Contact - Human Target score should have a maximum of 50 points.

Response: The equation in the Site Scoring Procedure has been modified to reflect a maximum score of 50.

- (20) In addition to the above comments, Douglas Coenen attached Chemical Waste Management's comments on the Washington Ranking Method (WARM) submitted to the State of Washington Department of Ecology (DOE) during the comment period for WARM. Most of the comments do not apply to the Oregon Site Scoring Procedure or were addressed in the staff report to the EQC for their November 2, 1990 meeting (specifically the Preamble). The following changes were incorporated into the Site Scoring Procedure as a result of these comments:
- a. The definition of surface water was expanded to include intermittent streams and seasonal lakes.
 - b. The preference for site data over Soil Conservation Service Soil Survey data was added to the text where appropriate.
 - c. A note to exclude permitted and authorized releases was added to the release module for the ground water pathway.
 - d. A definition of liner was added to the Glossary.
- (21) An additional comment was submitted over the telephone by Steve Zebozitz of Waste Management who participated in the preparation of the Waste Management comments.

Comment: The Coefficient of Aqueous Migration (CAM) was included in the proposed federal hazard ranking system (HRS2) but was deleted in the final ranking system. The Department should consider EPA's reason for changing the approach to mobility in the ground water pathway.

Response: EPA changed the approach to mobility due to comments on the requirement for training in geochemistry to apply the information on the Coefficient of Aqueous Migration (CAM). The use of CAM in the Site Scoring Procedure does not require that expertise thus the Department will retain that approach for Oregon's program.

Quincy Sugarman, Environmental Advocate, Oregon Student Public Interest Research Group, 1536 SE 11th, Portland, Oregon 97204
(Public Hearing Testimony and Written Comment)

- (22) Comment: It is important that the ranking system be one of the most prominent factors in prioritizing sites for further investigation, removal or remedial action.

Response: The Department intends to use the score as a prominent factor in prioritizing sites.

Rebecca DeMoss, Environmental Health Specialist, Environmental Services and Consultation, Health Division, Oregon Department of Human Resources, P.O. Box 231, Portland, Oregon 97207 (Telephone Comments)

(23) Comment: The term "waste management unit" should be defined.

Response: The term "hazardous substance release area" has been substituted for "waste management unit" and defined in the Glossary of the Site Scoring Procedure.

(24) Comment: An additional category of populations to consider for the sensitive population list in the direct contact route is elderly populations (e.g., those in nursing homes).

Response: Direct contact, as described in the direct contact pathway of the Site Scoring Procedure, can occur through soil ingestion or absorption through the skin. This type of contact would most likely occur in structures or activities where active adults/children will be found. It is unlikely that occupants of a nursing home will "wander" onto a nearby site and come into direct contact with contaminants. Therefore, nursing homes have not been added to the list of activities or structures.

Jean Cameron, Associate Director, Oregon Environmental Council, 2637 S.W. Water St., Portland, Oregon 97201 (Telephone comments)

(25) Comment: The Figure 1 on page A-4 of the Preamble is inconsistent with the text on page A-7. On page A-7 it is stated that "Sites requiring continuing environmental or institutional controls to protect public health and the environment must remain on the Inventory". Figure 1 suggests that they are removed from the CRL and Inventory.

Response: The figure has been changed to clarify that sites requiring continuing environmental or institutional controls will stay on the Inventory.

(26) Comment: In the direct contact-human health route, why isn't the potential for wildlife entering the site considered?

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Response: The approach to sensitive environments in the Site Scoring Procedure is to identify the location of sensitive environments (habitats) rather than the presence of individuals of a species and to score for the closest sensitive environment present within a certain distance of the site. In order to maintain a consistent approach throughout the Site Scoring Procedure, the direct contact pathway also uses this approach.

MODIFICATIONS TO THE SITE SCORING PROCEDURE
INITIATED BY THE DEPARTMENT

The following are changes the Department made to the Site Scoring Procedure in addition to those described in the response to public comment summary, Appendix E of this report. None of the changes were viewed as substantive enough to require additional public comment.

1. Technical edit to make the document easier to use for scoring.

Title of Appendix A changed from "Inventory Ranking Procedure" to "Inventory Ranking Rule, Site Scoring Procedure"

Introduction expanded to better present the context of the ranking

Definitions added to the Glossary

Term "waste management units" changed to "hazardous substance release areas"

Term "score" rather than to "value" used to refer to the number assigned to each data element

Toxicity tables and explanation of derivation of toxicity scores moved to Chapter 1. Scorers instructed in subsequent chapters to use Oregon Hazardous Substance Database to obtain toxicity score

Human toxicity tables expanded to better explain the toxicity scoring procedure

Chapters added to better present scoring instructions.

Chapter 2: Preliminary Scoring Instructions

Chapter 7: Site Scoring Equations and Scores

Containment tables included as an attachment

Tables reformatted for readability

2. Adjustments to tables:

Table 1-5: Surface water route environmental toxicity scores.

The ranges were adjusted to provide a better distribution of substances with established Acute Criteria. The acute oral column was removed and replaced with the median lethal concentration. The use of acute oral toxicity data for surface water environmental toxicity was deemed inappropriate.

Table 5-2: Subsurface hydraulic conductivity scores. The hydraulic conductivity numbers in cm/sec were removed. The conductivity numbers were to be used if hydraulic conductivity data for the unsaturated zone were available. Hydraulic conductivity data, if available, is usually for the saturated zone. As unsaturated zone hydraulic conductivity data are rarely available at the PA stage, the disadvantage of potential misuse of the numbers outweighs the advantages of having the numbers.

3. Attachment C was added to address sites with documented releases to surface water from contaminated ground water.

ENVIRONMENTAL CLEANUP ADVISORY COMMITTEE

ATTACHMENT G
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REQUEST FOR EQC ACTION

Meeting Date: March 11, 1991
Agenda Item: G
Division: Air Quality
Section: Noise Control

SUBJECT:

Portland Airport Noise Abatement Plan:
Commission Approval

PURPOSE:

Ratify a 5-year comprehensive noise abatement strategy
for the Portland International Airport

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 ___



811 SW Sixth Avenue
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(503) 229-5696

Meeting Date: March 11, 1991
Agenda Item: G
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<input type="checkbox"/> Informational Report	Attachment <input type="checkbox"/>
<input checked="" type="checkbox"/> Other: Noise Abatement Plan Summary Report	Attachment <u>A</u>

DESCRIPTION OF REQUESTED ACTION:

On September 8, 1981, the Oregon Environmental Council (OEC) petitioned the Department of Environmental Quality (Department, DEQ) to initiate proceedings requiring the Port of Portland, proprietor of the Portland International Airport, to develop and implement a noise abatement strategy. The initial plan was developed in accordance with the airport regulations, OAR 340-35-045, and approved by the Environmental Quality Commission (Commission, EQC) on August 19, 1983. The plan was subsequently reviewed by the EQC and reapproved with revisions on April 19, 1985.

Airports operating under a noise abatement plan are required to submit an updated strategy every five years for EQC evaluation and reauthorization. The renewal date for Portland International Airport's updated plan was April 19, 1990. At the April 6, 1990 EQC meeting, the Port of Portland requested, and received an extension of this deadline to allow additional time to complete an air traffic capacity study.

The principal goal of an airport Noise Abatement Plan is to reduce noise impacts caused by aircraft operations, prevent expansion of impacts, and to address noise-related problems within the higher noise impacted areas. This goal is to be achieved through the development of aircraft operational controls and noise compatible land use controls.

The unit of measurement most commonly used in airport noise studies is the Day-Night Sound Level (Ldn). Airport Ldn noise contours describe averaged 24-hour noise exposure levels representative of annual aircraft operations. A 10-decibel penalty weighing is applied to the sleep-sensitive hours of 10:00 p.m. to 7:00 a.m. State airport regulations define the Ldn 55 decibel contour as the threshold where degradation of health and welfare begins to occur. The Federal Aviation Administration (FAA) uses an Ldn 65 decibel criterion.

The update report prepared by KPMG Peat Marwick estimates population exposures within the Ldn 55 to Ldn 70 decibel contours. The 1990 estimates show approximately 30,915 residents inside the Ldn 55-60 decibel contour, 3,894 inside the Ldn 60-65 decibel contour, 1,342 inside the Ldn 65-70 decibel contour, and 79 residents inside the Ldn 70-75 decibel

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Agenda Item: G
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contour. No residents were inside the Ldn 75 decibel contour. Without the additional measures contained in the 1990 plan, the population levels can be expected to increase unless local zoning restrictions curtail new residential development within noise-imputed areas.

An updated 5-year Noise Abatement Plan has been prepared by the Port of Portland in accordance with the airport regulations and approved by the Port Commission (Summary report attached). The updated Plan will be fully implemented if approved by the EQC and the FAA.

Operational strategies in the form of specific departure and arrival flight tracks and flight altitudes continue to be the primary thrust of Portland Airport's noise abatement program. With the exception of a few modifications, the current operational policy is similar to that adopted in 1985.

The airport operates three runways. They are Runways 10L-28R and 10R-28L, the primary parallel runways with an east-west orientation, and Runway 02-20, commonly referred to as the "crosswind runway" with a north-south orientation.

Noise abatement flight procedures have been developed and implemented for all three runways. Operationally, most flights use the Columbia River corridor to avoid overflights of residential areas.

The December 1990 Updated Noise Plan incorporates the following new or revised noise abatement strategies:

1. Develop an offset precision instrument approach for aircraft landing to the west. This procedure will place aircraft over the Columbia River on a more consistent basis during non-visual flight conditions. Implementation is contingent upon approval by the FAA.
2. Install a Precision Approach Path Indicator (PAPI) on the north parallel runway. Aircraft landing to the west flying an over-the-river approach will be able to fly specified glide slopes on a more consistent basis. Installation is contingent upon approval by FAA and availability of federal funding.
3. Install visual navigational aid (strobe light) east of airport on radio tower in vicinity of 148th. This navigational aid will enable pilots landing to the west to maintain an over-the-river approach pattern

during the nighttime hours, or during periods of low visibility.

4. Develop written flight procedures for crosswind runway operations. This strategy will keep a greater number of flights taking off to the south on noise mitigation flight tracks.
5. Develop a daytime charted visual approach pattern for aircraft landing to the east. Known as the "Columbia visual" approach, incoming aircraft follow the center of the Columbia River on a straight-in approach pattern to avoid overflying Hayden and Tomahawk Islands and Vancouver, Washington.
6. Relocate ultra-high-frequency (TACAN) electronic navigational aid to prevent military overflights of Vancouver and to standardize jet approaches when using the south parallel runway.
7. Request limitations on, or denials of, Federal Housing Authority and Veteran Administration home loan approvals within the Ldn 65 decibel contour.
8. Adopt a policy encouraging airlines to voluntarily abide by a "no reverse thrust" policy during the late-night hours as weather and safety conditions permit.
9. Adopt a policy discouraging late-night use of Stage 2 (noisy) aircraft.
10. Implement the congressional mandate to phase-out Stage 2 aircraft by December 31, 1999. Presently, 60% of the commercial airline fleet serving Portland International Airport is Stage 3 (quieter aircraft).
11. Install a computerized flight tracking and noise monitoring system to evaluate compliance with the operational procedures of the plan.

The key component of the proposed 5-year updated Noise Abatement Plan is the installation of a computerized flight tracking and noise monitoring system. It will provide a quality assurance component to the noise mitigation effort.

The computerized flight tracking system will enable airport officials to better evaluate the magnitude of noise impacts and improve noise management capability. This system will allow

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for objective evaluations of new flight procedures and to "fine tune" existing procedures.

The congressional mandate to phase-out Stage 2 aircraft by December 31, 1999, coupled with maximizing the number of flights complying with the operational controls are expected to further reduce noise impacts. The projected noise reductions will be partially offset by increasing traffic volumes and new residential development within noise impacted areas.

Land use decisions have the potential to short circuit the positive benefits the updated Plan may produce. Failure to prudently manage the development of land near the airport may further aggravate existing noise problems which could threaten future airport operations, if not dealt as part of the noise abatement process. The proposed Plan sets forth strategies to deal with future development near the airport.

AUTHORITY/NEED FOR ACTION:

Required by Statute: _____ Attachment _____
 Enactment Date: _____
 Statutory Authority: ORS 467.040 Attachment _____
 Pursuant to Rule: OAR 340-35-045(4)(e) Attachment _____
 Pursuant to Federal Law/Rule: _____ Attachment _____

 Other: _____ Attachment _____

 Time Constraints: (explain)

Noise control regulations for airports require the Portland International Airport to resubmit for Commission approval, an updated noise abatement strategy every five years. An updated Plan has been prepared in accordance to the regulatory requirements, and submitted for EQC approval. If adopted, the Plan will be submitted to the FAA for final approval before implementation. Implementation of the submitted Plan will fulfill all State legal requirements.

Meeting Date: March 11, 1991
Agenda Item: G
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DEVELOPMENTAL BACKGROUND:

<input type="checkbox"/> Advisory Committee Report/Recommendation	Attachment	<input type="checkbox"/>
<input type="checkbox"/> Hearing Officer's Report/Recommendations	Attachment	<input type="checkbox"/>
<input type="checkbox"/> Response to Testimony/Comments	Attachment	<input type="checkbox"/>
<input checked="" type="checkbox"/> Prior EQC Agenda Items: (list)	Attachment	<input type="checkbox"/>
September 20, 1990 - Agenda Item 3 (Work Session)		
April 6, 1990 - Agenda Item D		
April 19, 1985 - Agenda Item G		
November 2, 1984 - Agenda Item J		
August 19, 1983 - Agenda Item H		

Other Related Reports/Rules/Statutes:

<input type="checkbox"/> Supplemental Background Information	Attachment	<input type="checkbox"/>
	Attachment	<input type="checkbox"/>

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

Because the Portland airport affects a large region and impacts residents of two states, a unanimity of public support for adoption of the updated plan does not exist. There exist divergent opinions between residents of east Multnomah County, Hayden Island and Vancouver, Washington. Many affected property owners are of the opinion pilots too often fail to fly the noise mitigation flight tracks and the aircraft often overfly residences below the minimum noise mitigation altitudes. Vancouver residents have expressed concern about noise impacts resulting from the use of the crosswind runway.

Human neuropsychological responses caused by noise stress often more closely correlate with the magnitude and duration of noise exposure. Because the Ldn value represents an averaged noise impact level, it can underestimate annoyance associated intermittent noise events (i.e. aircraft overflights). One of the leading critics of using the Ldn metric as a sole measure of human annoyance is the Environmental Protection Agency (EPA). EPA maintains that maximum noise impact and Ldn levels should be used to quantify airport noise impacts. According to EPA, human annoyance begins to occur at a threshold level of 85 decibels.

Several strategies were considered for incorporation into the updated plan such as mandatory reduced thrust upon take off, no nighttime reverse thrust, nighttime bans on Stage 2 aircraft (noisiest aircraft) operations, noise landing fees, imposition of higher approach glide slopes, and penalty schedules for violations of the plan. Many of the more controversial strategies are currently in effect at other airports and do not

Meeting Date: March 11, 1991
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appear to pose any unreasonable risk to public safety. Most of the considered alternatives were not endorsed by a majority of the Committee, or voluntary rather than mandatory controls were selected. Some participants felt that many of the measures should be mandatory rather voluntary. Projected noise reductions in the updated Noise Abatement Plan are premised on attrition of a Stage 2 to a Stage 3 aircraft fleet and improved flight track monitoring.

Residents of east county have voiced their opposition to the calm wind policy. This policy was implemented in 1979, and has been the target of many discussions. It was implemented to give preference to an east traffic flow (arrive and depart to the east) when wind velocities are 0-4 knots. Because departures to the east and west are approximately 50-50, and because there are higher noise impacts west of the airport, the Update Committee recommended retaining the calm wind policy.

PROGRAM CONSIDERATIONS:

The strategies in the proposed 1990 plan should significantly reduce the population affected by airport noise, according to the consultant's report. The report estimates that there will be 20,948 fewer people inside the Ldn 55-75 noise contours (58% reduction from 1990 levels) by the year 2010. Population noise exposure levels may be higher than the computer generated projections if local zoning regulations fail to curtail new residential development within noise-impacted areas.

The finalized 5-year Noise Abatement Plan will re-establish noise mitigation priorities and strategies. It emphasizes placing a higher percentage of incoming and outgoing flights over the center of the Columbia River with the aid of a computerized tracking system. Adjustments to military operations and replacement of older, noisier Stage 2 aircraft, by the quieter, Stage 3 aircraft, will also be major elements of the updated noise control strategy. Given the projected large increases in air traffic volumes and the potential to degrade livability in affected neighborhoods, adopting and implementing a substantive Noise Abatement Plan is in the public's best interest.

The Port of Portland will assume responsibility for implementing and complying with the approved Noise Abatement Plan. Due to limited resources (1 FTE) allocated to noise control, and because the Governor's proposed 1991 - 1993 biennial budget recommends elimination of DEQ's noise control program effective July 1, 1991, the Department's regulatory role during the implementation of the updated plan will be very limited. Delegation to the City of Portland does not seem to

Meeting Date: March 11, 1991
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role during the implementation of the updated plan will be very limited. Delegation to the City of Portland does not seem to be a feasible alternative as the City noise ordinance does not regulate airports. Enforcement of the airport regulations by DEQ will be extremely limited or non-existent after July 1, 1991.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Adopt the 5-year Noise Abatement Plan with any stipulations deemed necessary by the Commission to assure all provisions set forth in the Plan are met.
2. Deny or delay approval of the submitted Plan. The Commission may opt to request revisions to the Plan establishing stricter noise abatement strategies.
3. Not adopt the submitted Plan and allow the Port to apply federal guidelines which in many instances are less protective than the State airport regulations.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission adopt the 5-year Updated Noise Abatement Plan. (Alternative 1). The Department believes that the proposed strategies are balanced and reasonable solutions to a very complex environmental problem. The plan should, however, serve as a "living document" allowing for revisions and interim updates to further reduce noise impacts. The Plan does meet the requirements of the airport regulations.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

It is the Department's opinion that the recommended action is consistent with the strategic plan, agency policy, and legislative policy.

ISSUES FOR COMMISSION TO RESOLVE:

No major issues. The Commission may receive public testimony both in support and in opposition of this request.

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INTENDED FOLLOWUP ACTIONS:

The Department's noise control staff will continue to serve on the Noise Abatement Advisory Committee and its subcommittees, and provide technical assistance until July 1, 1991.

The final Updated Noise Abatement Plan will be implemented in accordance to the Commission's direction.

Approved:

Section: _____

Division: _____

Director: _____

Spencer Greenwood
Tell Hansen

Report Prepared By: Terry L. Obteshka

Phone: 229-5989

Date Prepared: February 4, 1991

TLO:a
NOISE\AH12004 (2/91)

REQUEST FOR EQC ACTION

Meeting Date: March 11, 1991
Agenda Item: H
Division: Water Quality
Section: Wastewater Finance

SUBJECT:

North Albany Health Hazard Area: Approval of Proposed Amendment to Alternative Plan to Mandatory Annexation for Alleviating Health Hazard.

PURPOSE:

Environmental Quality Commission (EQC) approval of the Amendment would allow the Alternative Plan to remain in effect as the most satisfactory and expeditious means of providing sanitary sewer service to alleviate the health hazard conditions in North Albany.

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



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Meeting Date: March 11, 1991
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Page 2

- | | | |
|-------------------------------------|--|-------------------------------------|
| <input type="checkbox"/> | Issue a Contested Case Order | |
| <input type="checkbox"/> | Approve a Stipulated Order | |
| <input type="checkbox"/> | Enter an Order | |
| | Proposed Order | Attachment <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | Approve Department Recommendation | |
| <input type="checkbox"/> | Variance Request | Attachment <input type="checkbox"/> |
| <input type="checkbox"/> | Exception to Rule | Attachment <input type="checkbox"/> |
| <input type="checkbox"/> | Informational Report | Attachment <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | Other: Approve the proposed Amendment
to the Alternative Plan | Attachment <u>A</u> |

DESCRIPTION OF REQUESTED ACTION:

The Department of Environmental Quality (Department) requests that the EQC approve the proposed Amendment to the Alternative Plan (Attachment A) submitted on December 21, 1990 by the Benton County Commissioners acting as the Governing Body of the North Albany County Service District (NACSD) with the endorsement of the City of Albany (Attachment B).

Specifically, the Department requests that the EQC adopt the following motion:

The Environmental Quality Commission hereby approves the Amendment to the Alternative Plan to Mandatory Annexation submitted by the North Albany County Service District and continues Certification of the Alternative Plan, subject to the following conditions:

1. The NACSD and the City of Albany will continue to promote and support early voluntary annexation of the Health Hazard Area to Albany so as to obviate further need for the Alternative Plan.
2. At the same time, the NACSD will pursue any mechanisms to fund local improvements created by the 1991 Legislative Assembly as a remedy for the limitations on the use of Bancroft Bonds that result from the passage of Ballot Measure 5.
3. The City of Albany will, as expeditiously as possible, enter into an agreement with the Department for an SRF Loan such that project design can be completed on a timely basis to allow for construction of the sanitary sewer system to serve North Albany by October 31, 1992.

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Agenda Item: H
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4. Not later than October 31, 1991, the NACSD will report to the EQC that one of these conditions pertains:
 - a. The Health Hazard Area has voluntarily annexed to Albany, making the Alternative Plan moot.
 - b. A firm, viable means for the NACSD to fund the local share of the sewer project has been developed and the Alternative Plan should remain in effect.
 - c. Neither a. nor b. has occurred and the resumption of mandatory annexation is required to alleviate the health hazard.

AUTHORITY/NEED FOR ACTION:

- Required by Statute: ORS 222.890, Attachment
Health Hazard Abatement
Enactment Date: 1983
- Statutory Authority: _____ Attachment
 Pursuant to Rule: _____ Attachment
 Pursuant to Federal Law/Rule: _____ Attachment
 Other: Attachment
 Time Constraints: (explain)

DEVELOPMENTAL BACKGROUND:

- Advisory Committee Report/Recommendation Attachment
 Hearing Officer's Report/Recommendations Attachment
 Response to Testimony/Comments Attachment
 Prior EQC Agenda Items: January 19, 1990, Item F
September 21, 1990, Item K Attachment
 Other Related Reports/Rules/Statutes: Attachment
 Supplemental Background Information Attachment

The EQC approved (certified) the Alternative Plan in its present form at the September 21, 1990 meeting based on a determination that it would result in the provisions of sewer service to alleviate the health hazard more expeditiously than would mandatory annexation, principally because the exclusion hearings and legal challenges that would probably accompany mandatory annexation would be avoided.

The proposed Amendment to the Alternative Plan relates to project financing and schedule.

The Alternative Plan as it presently stands calls for approximately 3 million dollars of the 7.3 million dollar estimated total project cost to be paid for by assessments against benefitted properties, financed by Bancroft Bonds. (The balance of the project would be paid for by grants and SRF loans.) The NACSD has concluded, based on the advice of bond counsel, that Ballot Measure 5 prohibits the use of Bancroft Bonding. Furthermore, because of the high cost of the project in relation to the assessed value of the benefitted properties in the Health Hazard Area, special assessments are not a viable option for the NACSD.

The NACSD thus finds itself in a position where a significant portion of project financing is not assured. The NACSD has identified four possible resolutions to this situation:

- o The 1991 Legislative Assembly will create mechanisms to replace or restore Bancroft Bonding, thus allowing the Alternative Plan to proceed as originally envisioned.
- o The Legislative Assembly will create a contract annexation mechanism that would give Albany the confidence to offer the City's sewer system revenues to secure assessment bonding but without immediate annexation.
- o The Health Hazard Area will voluntarily annex to Albany, allowing the City, with its greater financial resources, to proceed with the sewer project. (The EPA grant and SRF loans can be transferred from the NACSD to Albany).
- o None of the above scenarios come to pass, and the process returns to mandatory annexation.

Because of the uncertainties over the long-term project financing methods, the NACSD has not proceeded to secure short-term financing through bond anticipation notes (BANS) to pay for project design. The project, as per the schedule in the Alternative Plan, was to have been designed this winter and constructed by October of 1991. This schedule can no longer be met under any circumstances. The proposed Amendment contains a revised schedule calling for the project to be constructed by October, 1992.

Meeting Date: March 11, 1991
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In summary, the NACSD with the support of Albany, has asked the EQC to sanction a delay in the project schedule (a delay which in fact cannot be undone) while new funding arrangements and/or voluntary annexation are pursued.

It should be noted that the Amendment does not modify the design of the sewer system project.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

One consequence of Ballot Measure 5 will be to lessen the differences in property tax rates between the City of Albany and North Albany.

Because of this, an effort has been initiated by some North Albany residents to voluntarily annex the Health Hazard Area to Albany. This new situation notwithstanding, it is still the perception of Department staff that rejection of the proposed amendment and the consequent reversion of the Health Hazard Abatement process to mandatory annexation at this time would be unfavorably viewed in the area.

The imposition of forced annexation would probably strain the constructive working relationship that has developed between Albany, the NACSD and the residents of North Albany.

The NACSD, with Albany's endorsement, has submitted the proposed Amendment specifically to forestall the resumption of mandatory annexation.

PROGRAM CONSIDERATIONS:

Approval of the proposed Amendment will not significantly impact Water Quality Division workload. Staff will remain involved with the responsible jurisdictions in design, funding and other implementation issues.

The North Albany Health Hazard Area sewer project is ranked first on the Construction Grants Priority List, and ranks high on the State Revolving Loan Fund Priority List.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

Under the Health Hazard Abatement Law, there are two alternatives available to the EQC in response to the proposed Amendment to the Alternative Plan:

1. Approve the Amendment based on a determination that the revised Alternative Plan is still preferable to mandatory annexation as the best and most expeditious means of solving the health hazard situation.
2. Decline to approve the Amendment based on a determination that mandatory annexation is preferable because it would result in the alleviation of the health hazard more expeditiously than would an amended Alternative Plan.

To effectuate this alternative the EQC must:

- Act to disapprove the proposed Amendment.
- Act to find that the unrevised Alternative Plan no longer meets the requirements of the Health Hazard Abatement Law.
- Withdraw its Certification of the Alternative Plan.

The State Health Division would then act to return the Health Hazard Abatement process to one of mandatory annexation.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends alternative number one, approval of the proposed Amendment.

An amended Alternative Plan, even with a one year delay in construction schedule, is still preferable to mandatory annexation because it is more likely to result in the early provision of sewer service.

Mandatory health hazard annexation in North Albany is likely to provoke litigation contesting the process. Also, under the Health Hazard Abatement Law, the Health Division will be required to consider petitions for the exclusion of individual properties from the area. These legal challenges could take several years to resolve; they would be avoided under the (amended) Alternative Plan.

Additionally, if the exclusion process were carried out under mandatory annexation, there might be a reduction in the number of properties included in the annexation boundary to share the cost of sewer construction, to the extent that individual petitions for exclusion were successful.

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Rejection of the proposed Amendment and the concomitant reversion to mandatory annexation at this time would not be advantageous. Continuation of the Alternative Plan by approval of its revision would allow the most expeditious means of solving the health hazard to be pursued.

ISSUES FOR COMMISSION TO RESOLVE:

Do changed circumstances created by Ballot Measure 5 warrant approval of the proposed Amendment to the Alternative Plan, and would an amended Plan remain preferable to mandatory annexation as the most satisfactory and expeditious means of alleviating the health hazard conditions in North Albany?

INTENDED FOLLOWUP ACTIONS:

In the event that the proposed Amendment is approved by the EQC:

Continue to work with the responsible jurisdictions on design, finance and other implementation activities leading to project completion.

Approved:

Section: Mark [Signature]

Division: Spacial Taylor

Director: Jill Hansen

Report Prepared By: Richard J. Santner

Phone: 229-5219

Date Prepared: February 1, 1991

(Richard J. Santner:crw)
(CG\WC7752)
(2-1-91)



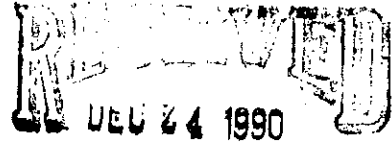
BOARD OF COMMISSIONERS

180 NW 5th Street
Corvallis, OR 97330-4777

(503) 757-6800

FAX (503) 757-6893

December 21, 1990



William P. Hutchison, Chairperson
Environmental Quality Commission
Attn: Fred Hanson, Director
Oregon Department of Environmental Quality
811 S.W. 6th Avenue
Portland, OR 97204

WATER QUALITY DIVISION
DEPT. OF ENVIRONMENTAL QUALITY

Dr. Michael Skeels, Administrator
Oregon State Health Division
811 State Office Building
1400 S.W. 5th Avenue
Portland, OR 97201

Re: Amendment to North Albany Alternative Plan

Gentlemen:

Attached please find a Resolution adopting an amendment to the Final Alternative Plan to Health Hazard Annexation for alleviation of the declared health hazard in the North Albany area. The Benton County Board of Commissioners, acting as the Governing Body of the North Albany County Service District, adopted this Resolution on December 19, 1990. This amendment has been developed in consultation with the City of Albany, and the County expects the City Council will endorse this amendment shortly. That endorsement will be forwarded to you by the City. The District and the City are submitting this amendment to you for your consideration in an attempt to preserve the Alternative Plan in the wake of the passage of Ballot Measure 5. As you will recall, the District had proposed to pay for the construction of facilities not covered by other grants and loans by using special assessments backed by Bancroft Bonds. As you know, Bancroft Bonding is no longer viable as a result of the passage of Measure 5, leaving the District without any effective means to finance the project.

December 21, 1990

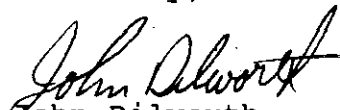
Page 2

The amendment essentially requests extra time to develop other methods of financing the Plan, and to seek a voluntary annexation that will make continuation of the Plan or resumption of health hazard annexation unnecessary. The parties believe that the 1991 Legislature will at least make an attempt to replace Bancroft Bonding with some other means of financing. In addition, if the Legislature adopts a strong new contract annexation law, the City might be less reluctant to secure the project. The County also believes that voluntary annexation could be more viable, because Measure 5 will result in substantial property tax reductions for North Albany, even if the area annexes.

The County and City continue to believe that the Alternative Plan, even as amended, will result in a more expeditious solution to the health hazard than returning to health hazard annexation proceedings under ORS 222.840 to 222.915. The Board of Commissioners hereby submits the amendment to the Alternative Plan, and requests the Environmental Quality Commission and the Health Division to approve the amendment and continue the suspension of health hazard proceedings.

Thank you for your consideration.

Sincerely,


John Dilworth,
Chairman

JGC:tw

Enclosure

cc: Senator Mae Yih
Representative Caroline Oakley
Bob Rindy, Department of Land Conservation & Development
Ron Hall, Health Division
Richard Santner, Department of Environmental Quality
Steve Bryant, Albany City Manager
Jeffrey G. Condit, Benton County Counsel

BEFORE THE GOVERNING BODY OF THE NORTH ALBANY COUNTY SERVICE
DISTRICT, BENTON COUNTY, STATE OF OREGON

In the matter of submitting an)
amendment to the Alternative Plan)
adopted pursuant to ORS 222.885.)

RESOLUTION

WHEREAS, on May 16, 1989, the Administrator of the Oregon State Health Division of the Department of Human Resources issued Findings of Fact, Opinion, Finding of Ultimate Fact, Conclusions of Law and Stay of Proceedings declaring a health hazard in a territory known as the North Albany area pursuant to ORS 222.840 to 222.915; and

WHEREAS, these findings and a subsequent stay issued by the Division on August 10, 1989, stayed further proceedings pursuant to ORS 222.840 to 222.915 until November 15, 1989, to enable area residents and local governments to develop an alternative plan to forced annexation to the City of Albany pursuant to ORS 222.885; and

WHEREAS, the Benton County Board of Commissioners, acting as the Governing Body of the North Albany County Service District submitted the resulting Alternative Plan, endorsed by the City of Albany, to the Department of Environmental Quality (DEQ), on November 13, 1989, pursuant to ORS 222.885(2); and

WHEREAS, the State of Oregon Environmental Quality Commission (EQC) approved the preliminary Alternate Plan pursuant to ORS 222.890(2) on January 19, 1990, giving the District and the City six months pursuant to ORS 222.890(2) to submit the final Alternative Plan; and

WHEREAS, the District and the City submitted the Final Alternative Plan to Health Hazard Annexation pursuant to ORS 222.890(2) on July 18, 1990; and

WHEREAS, the EQC certified the Final Alternative Plan to Health Hazard Annexation pursuant to ORS 222.890(3) on September 21, 1990; and

WHEREAS, the Health Division reviewed the Final Alternative Plan to Health Hazard Annexation, found that it met the requirements of ORS 222.890(2), and certified the Final Alternative Plan to Health Hazard Annexation pursuant to ORS 222.890(3) on October 31, 1990; and

WHEREAS, the voters of the State of Oregon adopted Ballot Measure 5 on November 6, 1990, which Measure significantly affects the ability of local governments to finance projects such as the proposed plan to alleviate the health hazard, necessitating an amendment to the Final Alternative Plan to Health Hazard Annexation:

BE IT HEREBY RESOLVED that the Governing Body of the North Albany County Service District amends the Final Alternative Plan to Health Hazard Annexation as shown in Attachment A, and directs that this resolution and attachments be submitted to the Oregon State Department of Environmental Quality and the Oregon State Health Division as soon as possible after adoption, along with a request that the Environmental Quality Commission and the Health Division permit this amendment to the Final Alternative

Plan and continue the suspension of further health hazard annexation proceedings pursuant to ORS 222.890(3).

Adopted this 19 day of December, 1991.

Signed this 19 day of December, 1991.

GOVERNING BODY OF THE NORTH ALBANY
COUNTY SERVICE DISTRICT

John R. Dilworth 12-19-90
John R. Dilworth, Chairman

Dale D. Schrock 12/19/90
Dale D. Schrock, Commissioner

Pamela S. Folts 12/19/90
Pamela S. Folts, Commissioner

Approved As To Form:
[Signature]
Office of County Counsel

ATTACHMENT A:

**Amendment to Alternative Plan to Annexation for
Removal of Health Hazard Conditions in North Albany**

I. Nature of Amendment to Final Alternative Plan: This document is intended to amend the Final Alternative Plan submitted to the State Department of Environmental Quality and the Oregon State Health Division on July 18, 1990. Except as expressly modified in this amendment, the provisions of the previous Plan continue in full force and effect.

II. Amended Findings: ORS 222.890(2) requires the governing body of a district proposing an alternative plan pursuant to ORS 222.890(1) to present the Environmental Quality Commission (EQC) with information demonstrating compliance with its four subsections. The passage of Ballot Measure 5 requires amendments to information previously submitted by the District to demonstrate compliance with ORS 222.890(2)(a), 222.890(2)(c), and 222.890(2)(d).

1. ORS 222.890(2)(a) requires information:

"That the territory in which the conditions dangerous to public health exist has received approval for extension of a city's or district's sewer or water lines within the territory or has annexed to a district authorized by law to provide facilities necessary to remove or alleviate the dangerous conditions, and that financing of the facilities or extension of such facilities has been assured."

In the Final Alternative Plan, the District and the City proposed to pay for the necessary facilities by applying for a \$1,261,000 Environmental Protection Agency construction grant, administered by the Oregon Department of Environmental Quality (DEQ) (applied for and approved in the amount of \$1,410,194), and an Oregon State revolving fund SRF (loan) in the amount of \$2,500,000 (applied for and approved in the amount of \$2,537,776). In addition, the City applied for and obtained an Oregon Community Development Block Grant (OCDBG) in the amount of \$500,000 to help low and moderate income households pay assessments. The remainder of the cost, primarily associated with the local collection system or other local share costs, was proposed to be paid for by assessments against the benefited property pursuant to NACSD Ordinance No. 2-B, the NACSD Improvement District Ordinance. This Ordinance, since codified into the North Albany County Service District Code (attached as Exhibit 1), provides for a waiver of remonstrance in the cases of health hazard annexation, and allows the costs assessed against benefited properties to be paid for by utilizing the Bancroft Bonding Act (ORS 223.205 and 223.210 to 223.295).

It is the opinion of bond counsel and of the County and the City that the passage of Ballot Measure 5 effectively prohibits funding the project by Bancroft Bonding.

The only other method for bonding special assessments available to the District is contained in ORS 223.785. This statute empowers a city or district to issue special assessment improvement bonds and pledge the revenue from special assessments against the benefitted property as security for those bonds. Unfortunately, the high cost of the project relative to the total assessed value of the properties to be assessed would make such a bond issue unsalable absent additional security. Measure 5 appears to have eliminated the District's ability to finance such an expensive project via special assessment.

Assessment bond financing might be possible if the City of Albany entered into a joint financing agreement with the District pursuant to ORS 451.560, in which the City agreed to back the District's issuance of assessment bonds with its sewer revenues. The City is unwilling to enter into such an agreement because it violates one of the City's primary conditions for allowing North Albany to hook up to the City regional sewage treatment plant without annexation. The City agreed to the Alternative Plan based on the representation by the District that the citizens of North Albany would be solely responsible for the cost of the sewer system, and that City taxpayers would not be required to subsidize service to North Albany. Under an ORS 451.560 agreement such as noted above, the City ratepayers could end up paying for the North Albany system. For the same reasons, and because of the County debt limitation contained in Article XI, Section 10, of the Oregon Constitution, the Benton County Board of Commissioners is unwilling to pledge the general tax revenue of the County as security for the District to levy assessment bonds.

These financial uncertainties do not necessarily mean that the Alternative Plan is no longer viable. The parties to the Plan expect that the 1991 Legislative Assembly will devise new methods for local governments to finance local improvements. We therefore desire the Health Division and the EQC to extend the time for assuring financing at least through the end of the 1991 Legislative session. The District therefore amends the finding regarding ORS 222.890(2)(a) to clarify that assessments against benefitted property will be made pursuant to the new North Albany County Service District Code. The assessments will be financed pursuant to the Bancroft Bonding Act or some other, similar, method enacted by the 1991 Legislative Assembly. NACSD Code 2.330 has been amended to allow the District to take advantage of any new method of financing that the Legislature enacts (see Exhibit 1).

Given the restrictions of Measure 5, the Legislative Assembly may not be able to replace Bancroft Bonding with a method of financing local improvements that will either enable the District

to finance the project or alleviate the City's concern that City taxpayers or ratepayers might end up paying for the North Albany system. The Alternative Plan could still proceed if the 1991 Legislative Assembly enacts some form of viable contract annexation. If the City can be assured that it will annex North Albany territory in the reasonably foreseeable future, the City has informed the District that it may be willing to secure the District's issuance of assessment bonds by pledging City sewer revenue as security.

In any event, the parties agree to offer a voluntary annexation as an alternative to termination of the Alternative Plan and a resumption of the forced health hazard annexation proceedings. As the EQC is aware, voluntary annexation is a component of the current Alternative Plan. Voluntary annexation was to have been offered to the citizens of North Albany just prior to assessment. The parties now propose to offer a voluntary annexation by early Fall of 1991 at the latest. If the citizens of North Albany approve the voluntary annexation, then the City would finance the local improvements using methods for financing such improvements within the City limits. Measure 5 makes annexation more attractive for citizens of North Albany because the \$10 per thousand limitation on taxing units "other than schools" means that annexation would increase the North Albany tax rate by less than half as much as it would have before Measure 5. In addition, by the time the City tax rate is imposed in tax year 1992-93 (presuming a Spring or Fall '91 annexation). The reduction in the school tax limit will more than offset the increase as a result of annexation. The citizens of North Albany will therefore see a substantial reduction in their property taxes under Measure 5, even if they vote for annexation.

The EQC may well ask why it should approve an extension to the Alternative Plan to await legislative developments when the parties could offer voluntary annexation immediately. The District believes that the citizens of North Albany will not approve a voluntary annexation unless all other non-annexation alternatives have been exhausted. This is true even though the only alternative to a voluntary annexation is forced health hazard annexation, which is highly likely to result in much greater expense to the individual property owners than would voluntary annexation because of the lengthy delays and the potential loss of federal grants and loans. Finally, because the project has been delayed for one year regardless of whether the District waits for the 1991 Legislature to act (see discussion below), awaiting potential legislative developments will not further delay the process. For these reasons, the District believes that a voluntary annexation should only be offered after the parties give the 1991 Legislature a chance to adopt legislation that will make the original Plan viable again.

In conclusion, the District concedes that financing for the project pursuant to the Alternative Plan is not currently assured. The District requests an extension of time until

October 1, 1991, to enable the parties to take advantage of legislative action or voluntary annexation. If one of the three scenarios noted above occurs, financing will be assured. If the legislature does not enact new financing or annexation measures, and if the voluntary annexation is not successful, then the District recognizes that the Alternative Plan will no longer be viable. In this event, the District concedes that resumption of forced health hazard annexation proceedings pursuant to ORS 222.840 to 222.915 will be the only remaining method for alleviating the health hazard in North Albany.

2. ORS 222.890(2)(c) requires the Alternative Plan to contain a time schedule for the construction of facilities.

The previously adopted Final Alternative Plan stated that design would occur in late Fall of 1990, that the project would go out to bid about March 1, 1991, and that construction would begin about May 1, 1991. The project was scheduled to be completed by about October, 1991.

Regardless of whether the EQC approves this amendment, the project cannot now be completed within the above time frame. The District and the City negotiated a design contract with David Evans and Associates (DEA). The District proposed to enter into this agreement as of November 30, 1990. A provision in that contract, however, required that the District be able to assure the design consultant that sufficient funding was available to pay the contract. The parties originally intended to pay for that contract by using bond anticipation notes (BANS) based upon the Bancroft Bonding assessment that would otherwise have occurred in October, 1991. Because the passage of Measure 5 has made the final method of financing uncertain, the parties were unwilling to commit the type of security that was necessary to borrow on a short-term basis, for the reasons previously stated. Any comfortable alternative method of financing (such as acquiring SRF funds) would require a delay of several weeks and perhaps several months.

The tight time schedule in the Alternative Plan would not permit such a delay. In order to meet the time line proposed in the Alternative Plan, the design contract had to be let by November 30 in order to complete design in time to go out to bid in early Spring. Any delay in completion of design would require a delay in going out to bid. Such a delay would eliminate many, if not all, eligible contractors, who would already be committed for the 1991 construction season. This could either prevent construction during the 1991 season, or make the project much more expensive.

The District therefore desire to amend the time schedule for construction to the following: Design will occur begin in early 1991, hopefully to be completed by late Summer, 1991. The project will go out to bid on or about February or March, 1992. Construction shall begin on or about May 1, 1992. The project

will be completed by October, 1992, with hook-ups beginning shortly thereafter.

The design portion of that schedule is subject to change. The City of Albany intends to attempt to retain the current design consultant. This is contingent, however, on the City's ability to obtain SRF funds to pay the consultant. DEA has agreed to give the City ninety (90) days to devise an alternative method of paying for the contract. If the City is unable to obtain SRF funding for the design contract, then design will occur in Fall, 1991.

The delay in construction will also delay the transfer of planning and zoning administration to the City from July 1, 1991, to July 1, 1992.

3. ORS 222.890(2)(d) requires demonstration that the proposed facilities, if constructed "will remove or alleviate the conditions dangerous to public health in a manner as satisfactory and expeditious as would be accomplished by the proposed annexation to the city."

The type of facilities and method of service does not change under the amendment. The requested delay, however, raises the issue of whether the Alternative Plan continues to be more expeditious than health hazard annexation.

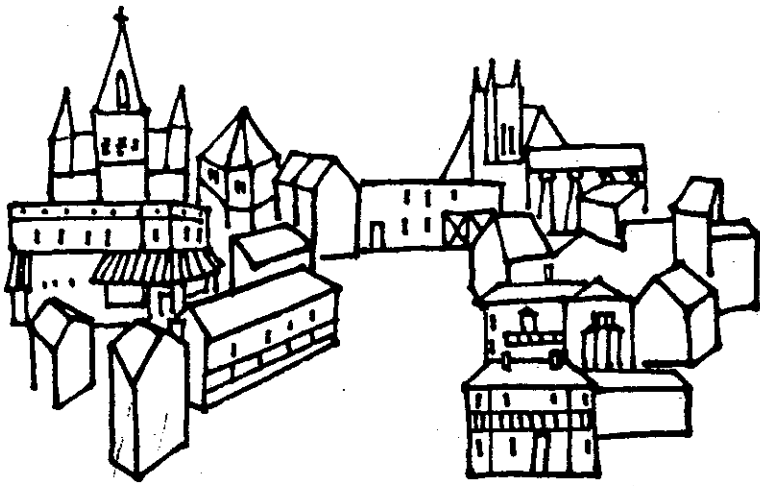
The District continues to believe that the amended Alternative Plan will continue to be more expeditious than proceeding with health hazard annexation pursuant to ORS 222.840 to 222.915.

If the EQC decertifies the Alternative Plan, the Health Division will order the resumption of health hazard annexation proceedings pursuant to ORS 222.840 to 222.915. Substantial delays and likely litigation caused by resumption of the health hazard annexation process, as noted in the previous Alternative Plan would occur. ORS 222.880(3) will require the Health Division to consider petitions for exclusion from the health hazard area. This process will delay construction by at least one year, and will likely result in litigation. As indicated by the vigorous opposition during the early part of the process, a large portion of the North Albany population continues to oppose annexation and would likely not only appeal many of the decisions on petitions for exclusion but also the entire health hazard annexation process. Resolution of such legal challenges is likely to take years.

Such a lengthy delay is also likely to cost the project its EPA grant and threaten the current level of SRF loan eligibility. Loss of these funds would make the project much more expensive for the citizens. (The District has been informed that a year's delay in construction will not cost the project its approved grants and loans.)

Finally, the Alternative Plan development and implementation process has resulted in a vastly improved working relationship between the District, the City, and the citizens of North Albany. Resumption of forced health hazard annexation proceedings could destroy this relationship and negatively impact not only this project but future projects as well.

III. Conclusion: For the reasons stated above, the District continues to believe the Alternative Plan, with amendments proposed above, continues to be the most satisfactory and expeditious method of removing or alleviating the conditions dangerous to public health which have been found to exist in the health hazard area by the Oregon State Health Division. For the reasons discussed above, implementation of the Alternative Plan as amended is clearly preferable to resumption of proceedings pursuant to ORS 222.840 to 222.915 to force annexation to the City of Albany of the North Albany area.



City of Albany

January 11, 1991

William P. Hutchison, Chairperson
Environmental Quality Commission
Attn: Fred Hansen, Director
Oregon Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204

Dr. Michael Skeels, Administrator
Oregon State Health Division
811 State Office Building
1400 SW 5th Avenue
Portland, OR 97201

RECEIVED
JAN 16 1991
STATE OF OREGON
DEPT. OF ENVIRONMENTAL QUALITY

RE: Albany's Endorsement of the North Albany Alternative Plan Amendment

Gentlemen:

You previously received correspondence from Benton County dated December 21, 1990, regarding an amendment to the North Albany Alternative Plan to Health Hazard Annexation. Enclosed please find a resolution adopted by the Albany City Council on January 9, 1991, which endorses that amendment. The City of Albany is in complete agreement with Benton County and the North Albany County Service District regarding the need for more time to complete the sewer project design and construction. The cooperation of the EQC will be greatly appreciated in this matter as we all attempt to recover from the impacts of Ballot Measure 5.

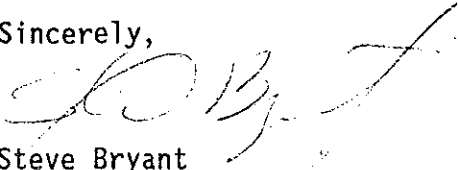
You may also be interested to learn that the North Albany Citizens Advisory Committee and many affected residents have recently expressed a great deal of interest in pursuing a voluntary annexation to the city of Albany. The combination of reduced property taxes following Measure 5 and the City's offer of extending sewer revenue bond financing has apparently turned the tide in favor of annexation. A citizens committee has been formed to circulate information and gather annexation petitions for possible action later this year. Ideally, a voluntary annexation will take place by this fall allowing the City to proceed

William P. Hutchison, Chairperson
Dr. Michael Skeels, Administrator
Page 2
January 11, 1991

with sewer system financing and circumventing the need for further health hazard or alternative plan proceedings. Also enclosed to this letter is another resolution of the Albany City Council adopted on January 9 which expresses to North Albany residents the City's commitment to providing financial assistance and other services resulting from any voluntary annexation action.

Please contact me if you have any questions.

Sincerely,



Steve Bryant
City Manager

swb:kw

Enclosures

c: Senator Mae Yih
Representative Carolyn Oakley
Ron Hall, Health Division
Richard Santner, Department of Environmental Quality
Bob Rindy, Department of Land Conservation and Development
John Dilworth, Benton County Commissioner
Candace Haines, Benton County Counsel

RESOLUTION NO. 3019

WHEREAS, on December 19, 1991, the Benton County Board of Commissioners, acting as the governing body of the North Albany County Service District, took action to amend the final Alternative Plan to Health Hazard Annexation for North Albany; and

WHEREAS, said amendment was necessitated by the passage of Ballot Measure 5 in November of 1990 which had the effect of eliminating the basic financing structure of the alternative plan; and

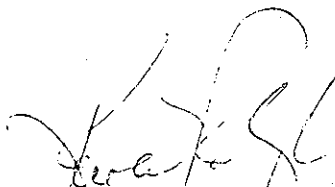
WHEREAS, none of the local government entities, including the City of Albany, are prepared to offer other alternative financing to enable the sewer project to proceed as planned during 1991; and

WHEREAS, the City of Albany may be able to offer sewer revenue bond financing for the project should the affected area choose to annex to the City of Albany; and

WHEREAS, additional time is needed to explore voluntary annexation and other financing mechanisms to allow the project to proceed.

NOW, THEREFORE, BE IT RESOLVED by the Albany City Council that the amendment to the Alternative Plan, attached as Exhibit A, is hereby endorsed and recommended for approval by the State of Oregon.

Adopted this 9th day of January 1991.



Mayor

ATTEST:



City Recorder

RESOLUTION NO. 3020

WHEREAS, the adoption of Ballot Measure 5 has placed severe limitations on plans by the City of Albany and the North Albany County Service District for construction of sewers in the North Albany health hazard area; and

WHEREAS, various new alternatives, including major legislative reform, have been explored by the affected agencies and citizen representatives to provide sewer service; and

WHEREAS, voluntary annexation to the city of Albany now appears to be the most viable and cost-effective method to enable the sewer project to proceed; and

WHEREAS, voluntary annexation will bring an end to the health hazard annexation process which would be a divisive and lengthy affair resulting in the highest costs per lot of all available alternatives; and

WHEREAS, the property tax features of Ballot Measure 5 will substantially reduce the property tax differential between the annexed and unincorporated territories of North Albany; and

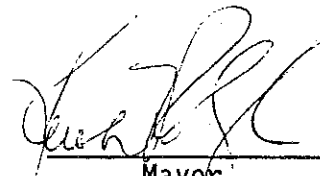
WHEREAS, many North Albany residents have expressed recent interest in voluntary annexation with certain commitments from the City of Albany.

NOW, THEREFORE, BE IT RESOLVED by the Albany City Council that the City of Albany will extend the following benefits to North Albany properties annexed to the city during calendar year 1991 (future extensions of these provisions to properties which annex after 1991 are subject to further City Council review):

- 1) The City will authorize use of its sewer system revenues as additional security for purposes of issuing a sewer revenue bond to back property assessments in North Albany for construction of the North Albany sewer system.
- 2) The City will convert all annexed water customers to the City's water rate schedule (resulting in a substantial savings to most North Albany customers).
- 3) The City will provide annexed North Albany residents with all of the services and privileges of City residents. These include the opportunity to be represented on various boards and commissions, reduced parks and recreation program fees, free City library service, police protection, and other General Fund services. In addition, the City will amend its ward boundaries to include all of the annexed territory into one of the City's three City Council wards.
- 4) The City will apply its current policy of not requiring urban standard public improvements unless there is consent of the majority of affected property owners or a state or federal mandate. Such improvements include sidewalks, curb and gutter streets, and sewers.

- 5) The City and Benton County have already taken steps to amend the Comprehensive Plan and zoning provisions to ensure the protection of special characteristics of North Albany. The City will continue to take all prudent steps necessary to recognize and preserve the livability of the North Albany area.
- 6) The City will attempt to extend all financial benefits of the sewer construction project to annexation areas outside of the health hazard project boundary provided a majority of property owners request sewer service and provided they can be efficiently included within the improvement project.

Adopted this 9th day of January 1991.



Mayor

ATTEST:



City Recorder

REQUEST FOR EQC ACTION

Meeting Date: March 11, 1991
Agenda Item: I
Division: H&SW
Section: SWR&R

SUBJECT:

Approval of Amendment to the METRO Order on Solid Waste Reduction.

PURPOSE:

The amendment to Order SW-WR-89-01 is needed to accommodate METRO's plan for implementing the collection of salvageable building material.

METRO and the Department of Environmental Quality are in agreement on the amendment.

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 & Economic Impact Statement Attachment
 - Public Notice Attachment

- Issue a Contested Case Order
- Approve a Stipulated Order
- Enter an Order
 - Proposed Order Attachment A



811 SW Sixth Avenue
Portland, OR 97204-1300
(503) 229-5696

Meeting Date: March 11, 1991
Agenda Item: I
Page 2

- | | |
|--|-------------------------------------|
| <input type="checkbox"/> Approve Department Recommendation | |
| <input type="checkbox"/> Variance Request | Attachment <input type="checkbox"/> |
| <input type="checkbox"/> Exception to Rule | Attachment <input type="checkbox"/> |
| <input type="checkbox"/> Informational Report | Attachment <input type="checkbox"/> |
| <input type="checkbox"/> Other: (specify) | Attachment <input type="checkbox"/> |

DESCRIPTION OF REQUESTED ACTION:

On March 3, 1989, the Environmental Quality Commission adopted a motion ordering METRO to implement a waste reduction program. METRO has completed and adopted a Special Waste Management Plan which concludes that the collection, recycling and reuse of salvageable building material, as required in item 4.I(b) of the current order, would most effectively be handled as part of a larger recovery system aimed at construction, demolition and land clearing debris. In order to procure and build the necessary facilities to implement such a system, more time is needed than is provided in the current Order. Therefore, METRO has requested a change to the compliance dates currently in the Order. The new schedule will move the compliance dates forward one year.

Amend Order #SW-WR-89-01 to accomplish the following:

1. By January 1, 1992, provide assurance of operation or construction to accommodate the collection of salvageable building materials.
2. By January 31, 1994, assure that materials recovery center(s) are operational.
3. These centers must provide processing and recovery systems for all construction and demolition debris and salvageable construction materials (including lumber), from both residential and commercial sources.
4. This operation must include provisions for separation of materials for reuse, in addition to processing and recycling.

AUTHORITY/NEED FOR ACTION:

- | | |
|---|-------------------------------------|
| <input type="checkbox"/> Required by Statute: _____ | Attachment <input type="checkbox"/> |
| <input type="checkbox"/> Enactment Date: _____ | |
| <input checked="" type="checkbox"/> Statutory Authority: <u>ORS 459.055 & 459.340</u> | Attachment <u>B</u> |
| <input type="checkbox"/> Pursuant to Rule: _____ | Attachment <input type="checkbox"/> |
| <input type="checkbox"/> Pursuant to Federal Law/Rule: _____ | Attachment <input type="checkbox"/> |

Meeting Date: March 11, 1991
Agenda Item: I
Page 3

Other: Order #SW-WR-89-01 Attachment C
 Time Constraints: (explain)

DEVELOPMENTAL BACKGROUND:

Advisory Committee Report/Recommendation Attachment
 Hearing Officer's Report/Recommendations Attachment
 Response to Testimony/Comments Attachment
 Prior EQC Agenda Items: (list) Attachment
 Other Related Reports/Rules/Statutes: Attachment
 Supplemental Background Information Attachment D

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

METRO has made significant progress implementing the March 3, 1989 Order. Of the fifty-one separate requirements in the Order, METRO has completed thirty-three and an additional twelve are ongoing. METRO is carrying out the ongoing requirements in a satisfactory manner. The remaining requirements are scheduled for completion between now and 1993. Based on METRO's Special Waste Study, they have concluded that they can effectively and economically recover salvageable building material as a part of the overall system for processing and recovery of construction, demolition, and land clearing debris. METRO's model demonstrates that 80% of the incoming material can be recovered for reuse and recycling and a residual 20% would be landfilled.

PROGRAM CONSIDERATIONS:

The Department has reviewed METRO's request to meet the requirements for recovery of salvageable building material through the implementation of their overall recovery system for construction, demolition and land clearing debris. The Department agrees that this method will be an effective method of dealing with this material. The Department concurs that more time is needed to establish a larger recovery system than was originally required in the Order. Therefore, the amendment to the Order provides additional time, conditioned by the fact that the larger recovery system will accommodate both residential and commercial generators of material and will provide an effective system for reuse of the materials that can be reused.

Meeting Date: March 11, 1991
Agenda Item: I
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The additional time provided by this amendment will not have an adverse impact on the recovery of salvageable building material in the metro area in the long run.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Do not amend the Order. Take further enforcement action to require METRO to address the salvageable building materials within existing collection depots and transfer stations.
2. Rescind the existing Order and negotiate a stipulated order for the remainder of the requirements.
3. Amend the existing unilateral Order, as described in Attachment A, to accommodate the new schedule for implementing special waste management systems.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends Alternative 3. This accommodates the need for a revised schedule for salvageable building material collection and allows the existing Order to remain in place requiring METRO to complete the implementation of their Waste Reduction Program.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The proposed amendment to the Order is consistent with the requirements of ORS 459.340.

ISSUES FOR COMMISSION TO RESOLVE:

The Department and METRO are in agreement that the amendment to the schedule for the provision of a facility or facilities to collect salvageable building material for reuse and recycling is reasonable and will result in an effective collection service for such materials. METRO is in compliance with all other requirements of the Order. This proposed action, therefore, does not result in any outstanding issues.

Meeting Date: March 11, 1991
Agenda Item: I
Page 5

INTENDED FOLLOWUP ACTIONS:

1. Issue the amendment to the Order.
2. Continue with compliance follow-up to ensure that the new schedule is met.

Approved:

Section: Jan Whitworth

Division: Stephanie Hallock

Director: Bill Hanna

Report Prepared By: Jan Whitworth

Phone: 229-6434

Date Prepared: February 15, 1991

JW:b
G:\YB10289
February 15, 1991

ENVIRONMENTAL QUALITY COMMISSION
STATE OF OREGON

ENVIRONMENTAL QUALITY COMMISSION	)	AMENDMENT TO ORDER
OF THE STATE OF OREGON, (Commission)	)	No. SW-WR-89-01
)	
v.)	
)	
METROPOLITAN SERVICE DISTRICT, (Metro))	

Pursuant to Oregon Revised Statutes (ORS) 459.055(3), the Environmental Quality Commission (Commission) issues this amendment to order SW-WR-89-01 to Metropolitan Service District (Metro).

1. Findings of Fact

A. The Metropolitan Service District (Metro) is a local government unit responsible for the management and disposal of solid waste generated within the boundaries of the Metropolitan Service District.

B. Metro has adopted and submitted to the Department of Environmental Quality (Department) a solid waste reduction program that commits Metro to reduce substantially the volume of waste that would otherwise be disposed of in land disposal sites.

C. Metro submitted this solid waste reduction program to the Department in May 1986 to fulfill the requirements of Section 8, Chapter 679, Oregon Laws of 1985, relating to establishing a new disposal site to serve the Metro area.

D. On March 18, 1988, Metro informed the Department that this 1986 Waste Reduction Program, in combination with other aspects of the Metro Solid Waste Management Plan, was to be recognized as meeting the requirements of ORS 459.055 for the Department to issue a permit for a landfill disposal site in an area zoned for exclusive farm use.

1 E. Following this notification, a landfill was permitted as a
2 conditional use in an exclusive farm use zone near Arlington, Oregon,
3 specifically for the purposes of accepting wastes from the Metropolitan
4 Service District and other areas for disposal.

5 F. The Department reviewed the report submitted by Metro on July 1,
6 1988 and determined that the approved solid waste reduction program had
7 not been adequately implemented.

8 G. On March 3, 1989, the Environmental Quality Commission adopted a
9 motion ordering Metro to implement the waste reduction program or to
10 carry out an alternative set of activities set forth in the order. The
11 effective date of this order was set as March 24, 1989. Metro chose to
12 carry out the alternative set of activities as defined in the order.

13 H. On December 21, 1990 Metro requested an amendment to Section
14 4I(b) of Order No. SW-WR-89-01.

15 I. The requested amendment is based on Metro's finding that the
16 collection, recycling and reuse of salvageable building material, as
17 required in 4.I(b) of the Order, would be handled most effectively as
18 part of larger recovery systems aimed at construction, demolition, and
19 land clearing debris. More time is needed for the procurement and
20 construction of necessary facilities.

21 2. Order

22 Therefore it is now ordered: Based on the above findings of fact, the
23 Commission amends Order SW-WR-89-01. Paragraphs 4.I.(b), (c) of said
24 order, as it pertains to salvageable building material, is amended and
25 superceded by the following:

26 ///

1 4.I.(b) By January 1, 1992, Metro shall assure that materials recovery
2 centers, for each material or group of materials, including all salvageable
3 building material, are operating or will be constructed for each region
4 capable of supporting a facility. All salvageable building material shall
5 include both residential and commercial waste. This assurance shall be
6 accomplished by Metro either identifying operating materials recovery
7 centers, awarding contracts for construction of new or modified facilities,
8 or obtaining written documentation demonstrating that such facilities have
9 been or are being constructed.

10 4.I.(c) At least one new facility shall be constructed and actually
11 recovering materials for reuse and recycling referred to in subparagraph
12 4.I.(b) by January 1, 1992. "New facility" includes existing facilities
13 that have been modified to recover materials for reuse and recycling. All
14 facilities called for under the planning process determination pursuant to
15 subparagraph 4.I.(a) and Metro's Regional Solid Waste Management Plan,
16 Special Waste Chapter, December, 1990 shall be operating and recovering
17 material by January 1, 1994, or by another date agreed to by Metro and the
18 Department.

19 (a) Opportunity for Hearing

20 Metro may request a hearing before the Commission or its hearings
21 officer regarding this amendment to Order SW-WR-89-01. Any such request
22 must be made in writing and received by the Director of the Department
23 within twenty-one (21) days from the date of mailing of this notice. Any
24 such request must be accompanied by a written answer admitting or denying
25 all factual matters contained in this Order, and must affirmatively allege
26 any and all affirmative claims or defenses Metro might have. Any hearing

1 shall be conducted under ORS Chapter 183 and Oregon Administrative Rules
2 (OAR) Chapter 340 Division 11, or as the Commission may otherwise direct.
3 If Metro does not request a hearing within twenty-one (21) days of mailing
4 of this order, Metro shall waive the right to a hearing under ORS Chapter
5 183. In the absence of a timely answer and request for hearing, this Order
6 shall become final and effective, and thereafter shall not be subject to
7 judicial review.

8

9 IT IS SO ORDERED:

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ENVIRONMENTAL QUALITY COMMISSION

12

13

MAR 22 1991

Date

By William P. Hutchison, Jr.
William P. Hutchison, Jr.
Chair

15

16

MAR 22 1991

Date

By Fred Hansen
Fred Hansen, Director
Department of Environmental Quality
Pursuant to OAR 340-11-136(2) and
approved motion of Environmental
Quality Commission on March 11, 1991

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position and collection of the charge on behalf of the local government unit.

(3) The solid waste collector shall remit the proceeds of the charge to the local government unit according to procedures adopted by the local government unit by ordinance. However, solid waste collectors shall not be responsible for covering any shortage caused by failure of a customer to pay charges for solid waste collection.

(4) A local government unit imposing a charge under this subsection may require solid waste collectors to submit reports or other documentation necessary to establish compliance with the requirements of this section or the ordinance adopted by the local government unit. All information contained in such reports relating to the number of accounts served by the solid waste collector or the revenue produced from such accounts shall be exempt from public disclosure.

(5) A solid waste collector required to collect charges under this subsection may retain five percent of the charge in order to defray the costs of collecting and accounting for the proceeds of the charge.

(6) If a person disposes of solid waste at a disposal site within the boundaries of a local government unit imposing a fee under this section without using the services of a commercial solid waste collector, the person shall pay the fee established by this section at the time the person disposes of solid waste at the disposal site. That portion of the charge attributable to administrative costs as provided in subsection (5) of this section shall be retained by the operator of the solid waste disposal site. The operator of the solid waste disposal site shall remit the balance of the charge according to procedures established by ordinance by the local government unit imposing the charge.

(7) Except for the amount allocated to defray the administrative expenses of a solid waste collector or disposal site operator under subsections (5) and (6) of this section, proceeds of the charge shall be placed into a dedicated local government remedial action fund established by the local government unit and may be used only to pay for remedial action costs. As used in this subsection, "remedial action costs" also includes the cost of retiring debt incurred in connection with a remedial action.

(8) The amount collected through the charge shall be the amount necessary to fund the local government unit's remedial action costs at one or more solid waste disposal sites for which a local government unit is responsible for conducting a remedial action or removal or related activities under ORS 466.570, or is liable under ORS 466.567 or

other applicable law and necessary administrative expenses incurred under this section, and may include an increment to cover any delinquencies in collections. The amount of the charge may be adjusted from time to time as necessary to maintain the remedial action fund at the level necessary to accommodate the local government unit's remedial action responsibilities, but shall not exceed the maximum amounts provided in paragraph (a) of subsection (1) of this section.

(9) Any local government unit located within the boundaries of a metropolitan service district may enter into an intergovernmental agreement with the district to transfer to the district the funding authority granted under this subsection and the responsibility for performing all remedial action obligations for which the local government unit may be responsible.

(10) As used in this section, "remedial action," "remedial action costs" and "removal" have the meaning given those terms in ORS 466.540. [1999 c.833 §137]

Note: 459.311 was added to and made a part of ORS 459.005 to 459.426 by legislative action but was not added to any smaller series therein. See Preface to Oregon Revised Statutes for further explanation.

459.315 Definitions for ORS 459.315 to 459.330. As used in ORS 459.315 to 459.330:

(1) "Committee" means a local citizens advisory committee established under ORS 459.320.

(2) "Permittee" means a person operating a regional disposal site under a permit issued under ORS 459.245. [1997 c.976 §9]

459.320 Disposal site advisory committee; membership; terms. (1) Except as provided in subsection (3) of this section, the board of county commissioners of a county in which a regional disposal site is proposed to be located shall establish a local citizens advisory committee when the Department of Environmental Quality receives an application for a regional disposal site within the county. The board shall select members of the committee who reflect a fair and equal representation of each of the following groups:

(a) Residents residing near or adjacent to the regional disposal site.

(b) Owners of real property adjacent to or near the regional disposal site.

(c) Persons who reside in or own real property within the county in which the regional disposal site is located.

(d) Employees of the permittee.

(e) Local organizations and citizen interest groups whose majority of members either:

(A) Are electors of the county in which the regional disposal site is located; or

SOLID WASTE CONTROL

459.345

(B) Own real property in the county in which the regional disposal site is located.

(2) Members of the local citizens advisory committee shall serve a term of two years. The committee shall elect from among its members a chairperson of the committee with such duties and powers as the committee imposes. The committee shall meet at least four times each year for so long as the regional disposal site is proposed or operating.

(3) If the regional disposal site is operated by a metropolitan service district, the local citizens advisory committee shall be established by the governing body of the metropolitan service district. [1987 c.376 §9]

Note: Section 10, chapter 376, Oregon Laws 1987, provides:

Sec. 10. Notwithstanding the term of office specified by section 9 of this 1987 Act [ORS 459.320], of the initial members of a local citizens advisory committee created pursuant to section 9 of this 1987 Act, one-half shall serve for a term ending one year after their appointment. [1987 c.376 §10]

459.325 Disposal site advisory committee duties. The duties of the local citizens advisory committee established under ORS 459.320 shall include but need not be limited to:

(1) Reviewing with the permittee, the regional disposal site including but not limited to siting, operation, closure and long-term monitoring of the regional disposal site; and

(2) Providing a forum for citizen comments, questions and concerns about the regional disposal site and promoting a dialogue between the community in which the regional disposal site is to be located and the owner or operator of the regional disposal site. The committee shall prepare an annual written report summarizing the local citizens' concerns and the manner in which the owner or operator is addressing those concerns. The report shall be considered by the Department of Environmental Quality in issuing and renewing a solid waste permit under ORS 459.245. [1987 c.376 §11]

459.330 Notification of disposal site advisory committee by permittee. The permittee shall notify the local citizens advisory committee established under ORS 459.320 when the permittee proposes to apply for a change to any state or local permit. [1987 c.376 §12]

459.335 Use of fees collected by the metropolitan service district. Notwithstanding any other provision of ORS 268.330 or 268.515 or section 9, chapter 679, Oregon Laws 1985, the metropolitan service district shall use moneys collected by the district as service or user fees for solid waste disposal for activities of the metropolitan

service district related to solid waste and related planning, administrative and overhead costs of the district. [1987 c.376 §12a]

459.340 Implementation of the solid waste reduction program by metropolitan service district. (1) The metropolitan service district shall implement the provisions of the solid waste reduction program as adopted by the metropolitan service district.

(2) After September 27, 1987, before the metropolitan service district council adopts an amendment to the district's solid waste reduction program, the district shall submit the proposed amendment to the Department of Environmental Quality for review and comment. The department shall review the proposed amendment to determine whether the amendment meets the requirements of section 8, chapter 679, Oregon Laws 1985. [1987 c.376 §13]

459.345 Metropolitan service district biennial report to commission. (1) Not later than July 1, 1988, and every two years thereafter, the metropolitan service district shall report to the commission on the implementation of its solid waste reduction program approved under section 8, chapter 679, Oregon Laws 1985, or as amended in accordance with ORS 459.340.

(2) The report submitted by the metropolitan service district under this section shall be in writing and shall include, but need not be limited to:

(a) A summary of the progress of the metropolitan service district in acquiring property and permits for the site selected under chapter 679, Oregon Laws 1985.

(b) The current status of implementation of the metropolitan service district's solid waste reduction program including the use of landfill disposal sites, recycling opportunities and the use of resource recovery technologies.

(c) A summary of the amount and percent of solid waste that is currently reused, recycled or disposed of in a solid waste disposal site and a comparison of such amounts and percentages to the district's existing and projected annual goals for the next two years for:

(A) The amount and percent of solid waste that will be reused, recycled or disposed of in a solid waste disposal site operated by the metropolitan service district or in a solid waste disposal site that the district has entered into an agreement to use; and

(B) The amount in tons by which solid waste disposed of annually in a landfill operated by the district or which the district has entered into an agreement to use will be reduced.

cerning the two large regional disposal sites now permitted in those counties;

(3) A review of existing statutes, administrative rules, ordinances and regulations of Oregon, cities and counties in Oregon, other states and the Federal Government which pertain to regional solid waste issues;

(4) Opportunities for public hearings on regional solid waste issues; and

(5) Communications with appropriate officials in Oregon and other states relative to the need for or preparation of regional agreements. [1989 c.459 §6]

Sec. 7. The Department of Environmental Quality shall provide administrative support staff for the commission. [1989 c.459 §7]

Sec. 8. The Oregon Solid Waste Regional Policy Commission shall prepare an interim and a final report. The reports shall contain recommendations for establishing or modifying state and regional policy toward regional solid waste issues, including any proposed changes in state statutes or administrative rules. The interim report shall be submitted to the Governor and the appropriate legislative interim committee on or before July 1, 1990. The final report shall be submitted to the Governor and Legislative Assembly on or before January 15, 1991. [1989 c.459 §8]

Sec. 9. This Act is repealed on June 30, 1991. [1989 c.459 §9]

(Local Administration)

459.065 State preemption; intergovernmental agreements authorized. (1) The Legislative Assembly finds that solid waste disposal is a matter of state-wide concern. The Legislative Assembly finds that carrying out the provisions of ORS 459.005 to 459.105, 459.205 to 459.245 and 459.255 to 459.385 by cities, counties and metropolitan service districts is a matter of state-wide concern. In carrying out the provisions of ORS 459.005 to 459.105, 459.205 to 459.245 and 459.255 to 459.385, a county or a city, or a metropolitan service district for one of its authorized functions, may enter into any agreement which the county, city or metropolitan service district determines is desirable, for any period of time, with the department, any local government unit or other person:

(a) For joint or regional franchising of service or the franchising or licensing of disposal sites.

(b) For joint preparation or implementation of a solid waste management plan.

(c) For establishment of a regional solid waste management system.

(d) For cooperative establishment, maintenance, operation or use of regional disposal sites, including but not limited to resource recovery facilities.

(e) For the employment of persons to operate a site owned or leased by the county, city or metropolitan service district.

(f) For promotion and development of markets for energy and materials from resource recovery.

(g) For the establishment of landfill disposal sites including site planning, location, acquisition, development and placing into operation.

(2) Authority granted by ORS 459.005 to 459.105, 459.205 to 459.245 and 459.255 to 459.385 to local government units is specific and is in no way intended to restrict the general authority granted under ORS 190.010 to 190.030, 190.110, 203.010 to 203.075, 203.111, 203.145 to 203.810 and ORS chapter 268, and is in addition to and not in lieu of such authority. [1971 c.648 §14; 1973 c.535 §158; 1975 c.239 §3; 1977 c.95 §6; 1979 c.773 §7]

459.070 [1967 c.428 §7; 1969 c.593 §47; repealed by 1971 c.648 §33]

459.075 Acquisition of property for disposal sites by cities and counties. Subject to the requirements of ORS 459.005 to 459.105, 459.205 to 459.245 and 459.255 to 459.426, a county or a city may acquire real or personal property by lease, purchase, exercise of the power of eminent domain or otherwise for the purpose of operating and maintaining disposal sites. With the consent of the city involved, a county may acquire property for a site within the limits of a city. With the consent of the county having jurisdiction, a city may acquire property for a site outside the limits of the city. [1971 c.648 §15]

459.080 [1967 c.428 §8; repealed by 1971 c.648 §33]

459.085 County authority outside cities; effect of annexation; interagency agreements. (1) With respect to areas outside of cities, a board of county commissioners may, by ordinance or by regulation or order adopted pursuant thereto:

(a) Prescribe the quality and character of and rates for solid waste collection service, and the minimum requirements to guarantee maintenance of service.

(b) Divide the unincorporated area into service areas, grant franchises to persons for solid waste collection service within service areas, and establish and collect fees from persons holding franchises.

(c) Prescribe a procedure for issuance, renewal or denial of a franchise to a person providing or proposing to provide solid waste collection service.

(d) Establish an agency to be responsible for investigation or inspection of solid waste collection service proposed or provided under a franchise or proposed franchise, such agency to have authority to order modifications, additions or extensions to the physical equipment, facilities, plan or service as shall be reasonable and necessary in the public interest.

(e) Regulate solid waste management.

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PUBLIC HEALTH AND SAFETY

(c) A timetable for implementing each portion of the waste reduction program;

(d) Energy efficient, cost-effective approaches for waste reduction;

(e) Procedures commensurate with the type and volume of solid waste generated in the area; and

(f) Legal, technical and economical feasibility.

(4) If the waste reduction program required pursuant to this section is not implemented, the commission may, by order, direct such implementation, or may prohibit the disposal site from accepting waste from that local government unit.

(5) The department shall report to each Legislative Assembly on the use made of this section, the level of compliance with waste reduction programs and recommendations for further legislation.

(6) A waste reduction program prepared under subsection (2) of this section shall be reviewed by the department and shall be accepted by the department if it meets the criteria prescribed therein.

(7) Notwithstanding ORS 459.245 (1), if the department fails to act on an application subject to the requirements of this section within 60 days, the application shall not be considered granted.

(8) No contract or agreement between an owner or operator of a disposal site and local government unit shall affect the authority of the commission to establish or modify the requirements of an acceptable waste reduction program under subsection (2) of this section. [1979 c.773 §9a; 1989 c.541 §2]

459.057 Department to limit wastes allowed in landfills in certain counties. (1) Before issuing a permit for a landfill disposal site to be established under ORS 459.047 or 459.049 or for a disposal site established as a conditional use in an area zoned for exclusive farm use within the boundaries of Clackamas, Marion, Multnomah, Polk or Washington County, the department shall require that, to the extent legally, technically and economically feasible only solid waste from transfer stations or solid waste residues from resource recovery facilities will be deposited in the landfill. As used in this section, "transfer station" means a site established for the collection and temporary storage of solid waste pending shipment in a compact and orderly manner to a landfill disposal site.

(2) Nothing in this section shall be construed to prohibit the department from allowing other solid waste to be deposited in the landfill in order to protect the public health and safety or the waters of this state

during a temporary emergency condition. [1979 c.773 §86]

459.060 [1967 c.428 §6; 1969 c.593 §46; repealed by 1971 c.648 §33]

(Oregon Solid Waste Regional Policy Commission)

Note: Sections 2 to 9, chapter 459, Oregon Laws 1989, provide:

Sec. 2. (1) There is created an Oregon Solid Waste Regional Policy Commission consisting of nine members, one of whom the Governor shall designate as chairperson.

(2) The commission shall consist of the following:

(a) Four legislators, two appointed by the President of the Senate and two appointed by the Speaker of the House of Representatives.

(b) The Director of the Department of Environmental Quality or designee.

(c) Two representatives of local government appointed by the Governor.

(d) Two citizens appointed by the Governor.

(3) In case of a vacancy for any cause, the appointing authority shall make an appointment to become immediately effective for the unexpired term. [1989 c.459 §2]

Sec. 3. (1) Five members of the Oregon Solid Waste Regional Policy Commission shall constitute a quorum for the transaction of business.

(2) The commission shall meet at a time and place determined by the chairperson. [1989 c.459 §3]

Sec. 4. (1) The Oregon Solid Waste Regional Policy Commission shall determine regional solid waste issues and report these issues to the Legislative Assembly and the Governor.

(2) In reporting regional solid waste issues, the commission's report shall include but need not be limited to the following:

(a) The transportation of solid waste to regional disposal sites;

(b) Waste reduction and recycling of solid waste before shipment to a disposal site;

(c) The positive and negative environmental, economic and other impacts on communities that provide solid waste disposal sites for the region; and

(d) The positive and negative environmental, economic and other impacts on the State of Oregon of regional disposal sites. [1989 c.459 §4]

Sec. 5. (1) The region on which the commission shall focus includes the states of Oregon, Washington and, as appropriate, northern California, Idaho and Nevada.

(2) In addition, the commission may look beyond the above designated region if the commission determines that solid waste could originate in other states. [1989 c.459 §5]

Sec. 6. The commission's work plan shall include but need not be limited to the following:

(1) A review of probable import levels of solid waste which addresses:

(a) Where the waste is coming from;

(b) Who is importing the waste;

(c) When and in what amounts the waste may be imported; and

(d) Why Oregon is being considered as the location for disposal;

(2) A review of information from Gilliam and Morrow Counties and the disposal site operators con-

by the commission, the Department of Environmental Quality shall:

(1) Assist the local government unit in the establishment of the landfill including assisting in planning, location, acquisition, development and operation of the site.

(2) Site and issue a solid waste disposal permit pursuant to ORS 459.205 to 459.245, 459.255 and 459.265 for a landfill disposal site within the boundaries of the requesting local government unit. Subject to the conditions set forth therein, any permit for a landfill disposal site authorized by the Environmental Quality Commission under this subsection shall bind the state and all counties and cities and political subdivisions in this state as to the approval of the site and the construction and operation of the proposed facility. Affected state agencies, counties, cities and political subdivisions shall issue the appropriate permits, licenses and certificates necessary to construction and operation of the landfill disposal site, subject only to condition of the site certificate. Each state or local government agency that issues a permit, license or certificate shall continue to exercise enforcement authority over such permit, license or certificate. [1979 c.773 §3]

459.049 Mandated sites in certain counties; establishment by state. (1) Upon its own motion or upon the recommendation of the department, the Environmental Quality Commission may determine that a landfill disposal site within the counties of Marion, Polk, Clackamas, Washington or Multnomah must be established in order to protect the health, safety and welfare of the residents of an area for which a local government solid waste management plan has identified the need for a landfill disposal site. In making its determination on the need for a landfill disposal site or, where applicable, on the location of a landfill disposal site, the commission shall give due consideration to:

(a) The legislative policy and findings expressed in ORS 459.015, 459.017 and 459.065, and particularly the policy that action taken under this section be exercised in cooperation with local government;

(b) The provisions of the solid waste management plan or plans for the affected area;

(c) Applicable local government ordinances, rules, regulations and plans other than for solid waste management;

(d) The state-wide planning goals adopted under ORS 197.005 to 197.465;

(e) The need for a landfill disposal site;

(f) The availability and capacity of alternative disposal sites or resource recovery systems and facilities;

(g) The time required to establish a landfill disposal site;

(h) Information received from public comment and hearings; and

(i) Any other factors the commission considers relevant.

(2) If the commission makes a determination under subsection (1) of this section that there is a need for a landfill disposal site within a plan area, the commission may adopt an order directing the local government unit responsible for implementing the plan to establish a landfill disposal site within a specified period of time. The order may specify a time schedule for the completion of the major elements required to establish the site. A local government unit directed to establish a landfill disposal site under this section may request assistance from the department or request that the department establish the disposal site as provided in ORS 459.047.

(3) If the commission determines that the establishment of a landfill disposal site ordered by the commission under subsection (2) of this section is not being accomplished or that the completion of major elements has fallen behind the time schedule specified in the order, the commission may direct the department to establish the disposal site or complete the establishment of the disposal site undertaken by the local government unit. The commission may direct the department to establish or complete the establishment of a landfill under this section only if the commission finds that:

(a) The action is consistent with the state-wide planning goals relating to solid waste management adopted under ORS chapters 196 and 197 and any applicable provisions of a comprehensive plan or plans; and

(b) The responsible local government unit is unable to establish the landfill disposal site ordered by the commission under subsection (2) of this section.

(4) If the commission directs the department to establish or complete the establishment of a landfill disposal site under subsection (3) of this section, the department may establish the site subject only to the approval of the commission and the provisions of the solid waste management plan adopted for the area and in consultation with all affected local government units. Notwithstanding any city, county or other local government charter or ordinance to the contrary, the department may establish a landfill disposal site under this subsection without obtaining any license, permit, franchise or other form of approval from a local government unit. [1979 c.773 §4; 1983 c.827 §54; 1985 c.565 §74]

459.050 [1967 c.428 §5; 1969 c.503 §45; repealed by 1971 c.648 §33]

459.051 Procedural rules. In accordance with the requirements of ORS 183.310 to 183.550 and after public hearing, the commission shall adopt rules:

(1) To establish a procedure for local government units to request assistance from the department in the establishment of landfill disposal sites under ORS 459.047, and to give notice of such requests.

(2) To establish a procedure for obtaining public comment on determinations of need for landfill sites made by the commission under ORS 459.049.

(3) To provide for public hearings in the area affected by a proposed landfill disposal site to be established by the department under ORS 459.049. [1979 c.773 §5]

459.053 Powers of department regarding landfill disposal sites. Subject to policy direction by the commission in carrying out ORS 215.213, 215.214, 215.283, 459.017, 459.047 to 459.065, 459.245 and 468.220, the department may:

(1) By mutual agreement, return all or part of the responsibility for development or operation of the site to the local government unit within whose jurisdiction the site is to be established, or contract with the local government unit to establish the site.

(2) To the extent necessary, acquire by purchase, gift, grant or exercise of the power of eminent domain, real and personal property or any interest therein, including the property of public corporations or local government.

(3) Lease and dispose of real or personal property.

(4) At reasonable times and after reasonable notice, enter upon land to perform necessary surveys or tests.

(5) Acquire, modify, expand or build landfill disposal site facilities.

(6) Subject to any limitations in ORS 468.195 to 468.260, use money from the Pollution Control Fund created in ORS 468.215 for the purposes of carrying out ORS 459.047 and 459.049.

(7) Enter into contracts or other agreements with any local government unit or private person for the purposes stated in ORS 459.065 (1).

(8) Accept gifts, donations or contributions from any source to carry out the provisions of ORS 459.047 and 459.049.

(9) Establish a system of fees or user charges to fund the operation and maintenance of a department owned landfill dis-

posal site and to repay department costs. [1979 c.773 §6; 1983 c.826 §22]

459.055 Landfills in farm use areas; waste reduction programs. (1) Before issuing a permit for a landfill disposal site to be established after October 3, 1979, in any area zoned for exclusive farm use, the department shall determine that the site can and will be reclaimed for uses permissible in the exclusive farm use zone. A permit issued for a disposal site in such an area shall contain requirements that:

(a) Assure rehabilitation of the site to a condition comparable to its original use at the termination of the use for solid waste disposal;

(b) Protect the public health and safety and the environment;

(c) Minimize the impact of the facility on adjacent property;

(d) Minimize traffic; and

(e) Minimize rodent and vector production and sustenance.

(2) Before issuing a permit for a landfill disposal site established under ORS 459.047 or 459.049, or for a disposal site established after October 3, 1979, as a conditional use in an area zoned for exclusive farm use, the department shall require:

(a) The local government unit responsible for solid waste disposal pursuant to statute or agreement between governmental units that sends more than 75,000 tons of solid waste a year to the disposal site to prepare a waste reduction program accepted by the department; and

(b) That any contract or agreement to dispose of more than 75,000 tons of out-of-state solid waste a year in an Oregon disposal site established under ORS 459.047 or 459.049 provides for a waste reduction program accepted by the department.

(3) A disposal site permitted under the provisions of subsection (2) of this section may not accept solid waste from a local government that does not have a waste reduction program or a contract accepted by the department. The department shall review the local government programs and the contract programs in the manner provided in subsection (6) of this section. Such programs shall provide for:

(a) A commitment by the local government unit to reduce the volume of waste that would otherwise be disposed of in a landfill through techniques such as source reduction, recycling, reuse and resource recovery;

(b) An opportunity to recycle that meets or exceeds the requirements of ORS 459.165 to 459.200 and 459.250;

**ENVIRONMENTAL QUALITY COMMISSION
STATE OF OREGON**

ENVIRONMENTAL QUALITY COMMISSION	)	ORDER
OF THE STATE OF OREGON, (Commission)	)	No. SW-WR-89-01
)	
v.)	
)	
METROPOLITAN SERVICE DISTRICT, (Metro))	

1 Pursuant to Oregon Revised Statutes (ORS) 459.055(3), the Environmental
2 Quality Commission (Commission) issues this order to the Metropolitan
3 Service District (Metro).

4 1. Findings of Fact

5 A. The Metropolitan Service District (Metro) is a local government
6 unit responsible for the management and disposal of solid waste
7 generated within the boundaries of the Metropolitan Service District.

8 B. Metro has adopted and submitted to the Department of
9 Environmental Quality (Department) a solid waste reduction program that
10 commits Metro to reduce substantially the volume of waste that would
11 otherwise be disposed of in land disposal sites.

12 C. Metro submitted this solid waste reduction program to the
13 Department in May 1986 to fulfill the requirements of Section 8, Chapter
14 679, Oregon Laws of 1985, relating to establishing a new disposal site
15 to serve the Metro area.

16 D. On March 18, 1988, Metro informed the Department that this 1986
17 Waste Reduction Program, in combination with other aspects of the Metro
18 Solid Waste Management Plan, was to be recognized as meeting the
19 requirements of ORS 459.055 for the Department to issue a permit for a
20 landfill disposal site in an area zoned for exclusive farm use.

21 E. Following this notification, a landfill was permitted as a
22 conditional use in an exclusive farm use zone near Arlington, Oregon,
23 specifically for the purposes of accepting wastes from the Metropolitan
24 Service District and other areas for disposal.

25 F. The Department has reviewed the report submitted by Metro on
26 July 1, 1988 and has determined that the approved solid waste reduction
27 program has not been adequately implemented.

1 2. Conclusions of Law

2 A. ORS 459.340 directs Metro to implement the provisions of the
3 solid waste reduction program adopted by Metro pursuant to Section 8,
4 Chapter 679. Oregon Laws of 1985.

5 B. ORS 459.055(2) requires that before the Department can issue a
6 permit for a landfill disposal site established as a conditional use in
7 an area zoned for exclusive farm use, the Department shall require the
8 local government unit responsible for solid waste disposal pursuant to
9 statute or agreement between governmental units to prepare a waste
10 reduction program.

11 C. Metro is the local government unit responsible for the
12 management and disposal of solid waste generated within the Metropolitan
13 Service District, pursuant to ORS 268.310-318.

14 D. The 1986 Metro Waste Reduction Program was used to fulfill the
15 requirements of ORS 459.055(2).

16 E. ORS 459.055(3) provides that if a local government unit has
17 failed to implement a waste reduction program submitted to the
18 Department pursuant to ORS 459.055(2), the Environmental Quality
19 Commission may, by order, direct such implementation.

20 F. The Department and the Commission having determined that Metro
21 has failed to implement the waste reduction program submitted to the
22 Department and designated to fulfill the requirements of ORS 459.055(2),
23 the Commission has the authority to order the implementation of the
24 waste reduction program.

25 3. Order

26 Based on the above findings of fact and conclusions of law, the
27 Commission orders Metro to implement all elements of the Waste Reduction
28 Program as set forth in the attached document titled "Work Plan" and dated
29 April 1986, hereby made a part of this Order. For the purposes of this
30 Order, all dates set forth in the "Work Plan" document shall be adjusted by
31 moving the date forward two years and ten months so that, for example, a
32 date of July 1, 1986 in the Work Plan shall become May 1, 1989 for the
33 purposes of this Order. As an alternative to implementing all elements of
34 the original 1986 Waste Reduction Program as set forth in this section,
35 Metro may choose to implement the Waste Reduction Program by implementing
36 the requirements of section 4 below. If Metro so chooses, Metro shall

1 notify the Department of this choice in writing by April 14, 1989. If
2 Metro notifies the Department in writing that it chooses to implement the
3 alternative requirements of Section 4 of this order, these alternative
4 requirements shall be ordered by the Commission in place of the
5 requirements in Section 3.

6 4. Alternative Requirements

7 If Metro notifies the Department that Metro chooses to implement the
8 alternative requirements of this section in place of the requirements of
9 Section 3, then Metro shall be ordered to carry out the following:

10 A. Metro shall implement the "Salvageable Building Materials and
11 Items" activity of the "Reduce and Reuse" program as follows:

12 (a) By January 1, 1990, Metro shall evaluate all Metro-area
13 disposal sites and transfer stations to determine the feasibility of
14 establishing an area at each site for receiving lumber and reusable
15 or recyclable building material from the residential waste stream.
16 If Metro determines that it is not feasible or appropriate to accept
17 lumber and reusable or recyclable building materials at a site,
18 Metro shall report this determination to the Department by January
19 1, 1990, along with the reasons why Metro believes that the
20 recycling of these materials is not feasible or appropriate at the
21 site.

22 (b) Except for those sites that under subparagraph 4.A.(a)
23 Metro has determined, with Department concurrence, that acceptance
24 of lumber and reusable or recyclable building material is not
25 feasible or appropriate, all Metro-area disposal sites and transfer
26 stations shall set aside an area by January 1, 1991 for receiving
27 lumber and reusable or recyclable building materials. At these
28 sites, spotters or gate attendants shall be used to direct loads of
29 salvageable materials to this recycling area.

30 (c) Metro shall conduct a specific promotion campaign for
31 reusable building materials, similar to the Metro campaigns for yard
32 debris, Christmas trees, or household hazardous waste. This
33 activity shall be initiated by April 1, 1990.

1 B. Metro shall implement the "Technical Assistance" activity of the
2 "Recycle 405 Materials" program as follows:

3 (a) By January 1, 1990, Metro shall identify those areas where
4 multi-family or commercial recycling is not provided, and where
5 technical assistance is most needed to establish multifamily and
6 commercial recycling programs.

7 (b) By July 1, 1990, Metro shall proactively provide technical
8 assistance as needed to get the desired multifamily and commercial
9 recycling programs established. This assistance should include, at
10 Metro's initiation, direct consultation of Metro staff with
11 appropriate local government officials and collectors.

12 C. Metro shall implement the "Source Separation Technology
13 Development" activity of the "Recycle 405 Materials" program as follows:

14 (a) By October 1, 1989, Metro shall implement the pilot
15 residential recycling container project.

16 (b) By January 1, 1991, Metro shall implement a pilot project
17 involving containers or recycling methods for multi-family
18 residential units.

19 (c) By August 1, 1990, Metro shall work with local governments
20 of at least one county to implement a curbside container recycling
21 program, including assistance with financing alternatives,
22 distribution techniques and promotion and education.

23 D. Metro shall implement the "Materials Markets Assistance"
24 activity of the "Recycle -- Yard Debris" program as follows:

25 (a) Metro shall implement the institutional purchasing aspects
26 of yard debris materials markets assistance as set forth in
27 paragraph 4.0. of this order.

28 (b) Metro shall continue to manage quarterly yard debris
29 compost tests for herbicides, nutrients, toxicity, and seed
30 identification.

31 (c) Metro shall continue work with demonstration plots testing
32 the effects of yard debris compost on plant growth.

33 (d) Metro shall continue an annual yard debris composting
34 campaign, and shall continue to coordinate and carry out promotion
35 and education, development of materials, and marketing events.

1 These activities shall be aimed at landscapers, nurserymen, and the
2 general public.

3 E. Metro shall implement the "Bans on Disposal" activity of the
4 "Recycle - Yard Debris" program as follows:

5 (a) By September 1, 1989, Metro shall evaluate all Metro-area
6 disposal sites and transfer stations to determine the feasibility of
7 establishing an area at each site for receiving source separated
8 yard debris for recycling. If Metro determines that it is not
9 feasible to accept yard debris at a facility, Metro shall report
10 this determination to the Department by September 1, 1989, along
11 with the reasons why Metro believes that the recycling of yard
12 debris is not feasible at the site.

13 (b) Except for those sites that under subparagraph 4.E.(a)
14 Metro has determined, with Department concurrence, that acceptance
15 of yard debris is not feasible or appropriate, Metro shall work with
16 all Metro-area disposal sites and transfer stations to make sure
17 that each has developed an area for receiving yard debris and a
18 mechanism for having yard debris recycled, either on or off site.
19 These yard debris recycling capabilities shall be in operation by
20 January 1, 1990.

21 (c) By January 1, 1990, based on the evaluation performed
22 pursuant to subparagraph 4.E.(a), Metro shall prohibit the disposal
23 of source separated yard debris at appropriate Metro-area disposal
24 sites if that yard debris is brought to the disposal site
25 uncontaminated by other wastes. Metro may also choose to ban
26 disposal of yard debris other than source-separated yard debris.

27 F. Metro shall implement the "Rate Incentives" activity of the
28 "Recycle - Yard Debris" program as follows:

29 (a) By July 1, 1989, Metro shall adopt a rate structure at all
30 of its disposal sites that provides for acceptance of clean, source-
31 separated yard debris for recycling, from all classes of yard debris
32 generators, at a cost that is less than the cost of disposal of
33 contaminated yard debris and mixed waste. This rate incentive need
34 not apply to yard debris accepted for composting at a solid waste
35 composting plant, or to a site that, pursuant to subparagraph

1 4.E.(a), Metro has determined, with Department concurrence, cannot
2 feasibly accept yard debris for recycling.

3 (b) By January 1, 1990, Metro shall require all disposal sites
4 that accept yard debris for recycling to adopt a disposal rate
5 structure that provides for acceptance of clean, source-separated
6 yard debris for recycling, from all classes of yard debris
7 generators, at a cost that is less than the cost of disposal of
8 contaminated yard debris and mixed waste. This rate incentive does
9 not need to apply to yard debris accepted for composting at a mixed
10 solid waste composting facility.

11 G. Metro shall implement the "Technical Assistance" activity of the
12 "Recycle - Yard Debris" program as follows:

13 (a) By January 1, 1990, Metro shall organize and expand its
14 database and library of information on collection and processing of
15 yard debris.

16 (b) On an ongoing basis, Metro shall promote the use of
17 Recycling Information Center resources, and shall proactively
18 provide assistance to local governments, haulers, and small scale
19 processors such as chipping and gardening services that might
20 compost their own wastes.

21 H. Metro shall provide local yard debris collection coordination as
22 follows:

23 (a) Metro shall develop and implement a regional yard debris
24 plan that will include an assessment of market capacity, processing
25 capacity, local government collection alternatives, facility
26 impacts, local government financing options, data collection options
27 to evaluate programs and tools to implement effectively the regional
28 plan. The plan shall further specify what collection methods, new
29 facilities, data collection methods, incentives, and enforcement
30 mechanisms are to be implemented, and the parties responsible for
31 implementation of each element of the yard debris plan.

32 (b) The regional yard debris plan shall be completed and
33 submitted to the Department of Environmental Quality for approval no
34 later than July 1, 1990.

35 (c) Metro shall implement the plan approved by the Department
36 pursuant to subparagraph 4.H.(b) of this Order.

1 I. Metro shall implement the "Materials Recovery Centers" activity
2 of the "Post Collection Recycling/Materials Recovery" program as
3 follows:

4 (a) By April 1, 1990, based on economic and technical analysis,
5 Metro shall determine if specific geographic areas can support a
6 facility or facilities for the recovery of salvageable construction
7 materials (including lumber) and a facility for paper products.
8 Metro shall submit the results of this determination to the
9 Department by April 1, 1990 for review and concurrence.

10 (b) By January 1, 1991, based on the Department's determination
11 of the results of the analysis performed pursuant to subparagraph
12 4.I.(a), Metro shall assure that materials recovery centers, for
13 each material or group of materials, are operating or will be
14 constructed for each region capable of supporting a facility. This
15 assurance shall be accomplished by Metro either identifying
16 operating materials recovery centers, awarding contracts for
17 construction of new or modified facilities, or obtaining written
18 documentation demonstrating that such facilities have been or are
19 being constructed.

20 (c) At least one new facility shall be constructed and actually
21 recovering materials referred to in subparagraph 4.I.(b) by January
22 1, 1992. "New facility" includes existing facilities that have been
23 modified to recover materials. All facilities called for under the
24 planning process determination pursuant to subparagraph 4.I.(a)
25 shall be operating and recovering material by January 1, 1993, or by
26 another date agreed to by Metro and the Department.

27 J. Metro shall implement the "Use of Transfer Stations" activity of
28 the "Post Collection Recycling/Materials Recovery" program as follows:

29 (a) All new transfer stations for municipal refuse that are
30 built to serve the Metro region shall be designed either to recover
31 recyclable or reusable materials from hi-grade loads of waste, or
32 shall provide an area for unloading and temporary storage of
33 materials pending transfer to an appropriate materials recovery
34 facility. Alternatively, if Metro determines that within five miles
35 of a transfer station there exists a facility that can recover
36 materials from certain hi-grade loads, and if that alternative

1 facility is open during the hours that the transfer station is open,
2 Metro may direct high grade loads of waste to the alternative
3 facility in lieu of accepting the material at the transfer station.
4 This five mile limit may be waived if Metro determines, with written
5 concurrence by the Department, that a new transfer station may be
6 effectively served by a more distant materials recovery facility.
7 The effective date of the requirements of this subparagraph shall be
8 the date that the new transfer station begins to accept solid waste
9 for disposal.

10 (b) Metro shall either redesign the Metro South Station to
11 accept loads of high grade wastes for materials recovery that
12 consist of 75% or higher of recyclable material, or shall identify
13 an alternative facility within five miles that can accept that
14 material, and then direct all high grade commercial loads of waste
15 to that alternative facility. The decision to either use Metro
16 South Station or identify an alternative facility shall be made by
17 April 1, 1990. If Metro decides to implement material recovery at
18 the Metro South Station, Metro shall develop plans to modify Metro
19 South Station for materials recovery by January 1, 1991, and shall
20 have materials recovery on-line by July 1, 1992.

21 K. Metro shall implement the "Waste Auditing and Consulting"
22 activity of the "Post Collection Recycling/Materials Recovery" program
23 as follows:

24 (a) By July 1, 1989, Metro shall develop a survey form for
25 conducting waste audits.

26 (b) By October 1, 1989, Metro shall perform waste audits on 25
27 representative moderate to large businesses, office complexes,
28 construction/demolition companies; and shopping centers. In these
29 audits Metro shall determine the quantity and roughly estimate the
30 composition of wastes produced by the business, and shall
31 demonstrate to the business what materials could be effectively
32 recovered through source-separation, and what wastes could be made
33 available to a materials recovery center.

34 (c) By January 1, 1990, Metro staff shall prepare a report to
35 the Department and to the Metro Council on the effectiveness of the
36 25 waste audits.

1 (d) If the Department determines that the initial 25 audits
2 demonstrate that a waste auditing and consulting service would be
3 effective at reducing the wastes generated by certain classes of
4 businesses or institutions, Metro shall conduct an inventory of the
5 Metro-area businesses and institutions in those classes, and shall
6 proactively offer waste auditing and consulting services to all
7 those targeted businesses by July 1, 1992.

8 (e) By January 1, 1990, Metro shall develop a waste auditing
9 training seminar for generators and collectors.

10 (f) By July 1, 1990, Metro shall conduct three seminars for
11 generators and collectors on reducing waste.

12 L. Metro shall provide local collection service coordination as
13 follows:

14 (a) At a minimum, this local collection service coordination
15 program shall accomplish the following:

16 (i) By July 1, 1990, standards of performance and recycling
17 goals shall be set.

18 (ii) By July 1, 1990, the reporting procedure for local
19 jurisdictions, including requirements for data for determining
20 participation levels and quantities of materials recycled, shall
21 be designed. Metro shall also produce reports on regional data
22 by July 1, 1990.

23 (iii) Starting July 1, 1990 or earlier, Metro shall begin
24 measuring performance for local jurisdictions relative to the
25 standards of performance and recycling goals established per
26 this paragraph.

27 (b) Metro shall develop and implement, by July 1, 1990, tools
28 to be used to ensure that the performance standards and recycling
29 goals set pursuant to subparagraph 4.L.(a) are met. A variety of
30 options exist to accomplish this, including:

31 (i) rate incentives,

32 (ii) certification,

33 (iii) flow control,

34 (iv) functional planning authority, and

35 (v) cooperative compliance, with implementation by local
36 governments.

1 M. Metro shall implement the "Incentives for Post-Collection
2 Recycling" activity of the "Rate Incentives" program as follows:

3 (a) By January 1, 1990, Metro shall conduct a study of the
4 effectiveness of present rate incentives at reducing waste, and
5 possible modifications to the rate structure that would further
6 encourage the recovery of paper products, yard debris, metals,
7 lumber, other salvageable building materials, asphalt, and other
8 materials.

9 (b) Based on the results of the study outlined in
10 subparagraph 8.M.(a) Metro staff shall make appropriate proposals to
11 amend the disposal rate structure, to be adopted by Metro Council
12 and in effect by October 1, 1990 or by the date that materials
13 recovery facilities come on line for the specific materials,
14 whichever is later.

15 N. Metro shall implement the "Recycled Products Survey" activity of
16 the "Materials Markets Assistance" program as follows:

17 (a) By July 1, 1989, Metro shall complete a survey and report
18 to the Department on the products available for purchase in the
19 Metro region that are made from recycled paper, yard debris, tires,
20 and used oil. This survey shall include, where appropriate, the
21 price of items made from recycled material as compared to the price
22 of similar items made from virgin material. Metro shall also
23 distribute results of the study to local governments and businesses
24 upon request.

25 (b) By January 1, 1990 Metro shall complete a survey and report
26 to the Department on the products including paving and construction
27 materials, insulation and building materials, reusable containers,
28 fuels derived from recycled oils or other reclaimed products, and
29 recycled plastic products that are available for purchase in the
30 Metro region and that are made from recycled materials. This survey
31 shall include, where appropriate, the price of items made from
32 recycled material as compared to the price of similar items made
33 from virgin material. Metro shall also distribute results of the
34 study to local governments and businesses upon request.

1 O. Metro shall implement the "Institutional Purchasing" activity of
2 the "Materials Markets Assistance" program as follows:

3 (a) By July 1, 1989, Metro shall develop a model procurement
4 policy for the purchase of recycled paper products, composted yard
5 debris products, and other products made from recycled materials.

6 (b) By January 1, 1990, Metro shall provide all Metro-area
7 local governments and major businesses and public institutions with
8 the model recycled products procurement policies, and with
9 encouragement and assistance in adopting the procurement policies.

10 (c) Starting by January 1, 1990, Metro shall provide local
11 governments, businesses, and public institutions that are potential
12 large users of items made from recycled material with technical
13 assistance on the purchase and use of recycled products. This
14 assistance shall include demonstration projects and provision of
15 samples of materials.

16 (d) Metro shall continue work to promote the use of composted
17 yard debris products with local governments and other potential
18 large users of composted yard debris materials.

19 (e) By July 1, 1990, Metro shall provide the Department with a
20 copy of the model procurement policies developed, and with
21 information concerning the procurement of composted yard debris
22 products and other recycled products by local governments and
23 institutions that resulted in part due to Metro's procurement
24 promotion efforts.

25 P. Metro shall implement the "Set Waste Reduction Performance
26 Goals" activity of the "System Measurement" program by adoption of goals
27 by Metro Council prior to May 1, 1989.

28 Q. Metro shall implement the "Establish Ongoing Measurement"
29 activity of the "System Measurement" program as follows:

30 (a) Metro shall regularly monitor the waste quantity and
31 composition generated in the Metro area by conducting a composition
32 and quantification study every three years, or more frequently as
33 deemed appropriate by Metro. This study shall include four seasonal
34 samplings of the waste stream. The first sampling shall be
35 completed by July 1, 1989, and the next three samplings shall be
36 conducted each quarter, to be completed by April 1, 1990. The

1 survey methodology shall be consistent with the methodology used in
2 the 1986-87 Metro waste characterization study, although the number
3 and size of samples may be reduced as is appropriate for a
4 periodically-repeated monitoring survey.

5 (b) By July 1, 1990, Metro shall report to the Department on
6 the results of the 1989-1990 waste composition monitoring study.

7 (c) Metro shall, in conjunction with the periodic waste
8 composition studies, develop periodic wastestream update reports for
9 use in promotion and education.

10 (d) Metro shall continue to annually survey recycling markets
11 and brokers for information on the quantity of material recycled in
12 the Metro region each year, and for other information on the
13 effectiveness of recycling programs. The survey on quantity of
14 materials may be done in conjunction with a recycling quantification
15 survey conducted by the Department.

16 5. Reporting Requirements

17 In addition to the requirements of Section 3, or the alternative
18 requirements of Section 4, Metro is ordered to report to the Department on
19 the implementation of the waste reduction program as follows:

20 (a) Metro shall provide written reports to the Department on or
21 before July 1, 1989, January 15, 1990, July 1, 1990, January 15,
22 1991, July 1, 1991, and January 15, 1993, about the implementation
23 of the waste reduction program.

24 (b) Within 45 days of the date Metro submits each report, if
25 requested by the Department, Metro shall meet with the Department to
26 review the progress of implementation of the waste reduction program
27 under this order.

28 6. Civil Penalties

29 Metro, upon receipt of a written notice from the Department for any
30 violations of this order, shall pay civil penalties not to exceed \$500 for
31 each day of each violation of this Order.

32 7. Opportunity for Hearing

33 Metro may request a hearing before the Commission or its hearings
34 officer regarding this Order. Any such request must be made in writing and
35 received by the Director of the Department within twenty-one (21) days from
36 the date of mailing of this notice. Any such request must be accompanied by

1 a written answer admitting or denying all factual matters contained in this
2 Order, and must affirmatively allege any and all affirmative claims or
3 defenses Metro might have. Any hearing shall be conducted under ORS Chapter
4 183 and Oregon Administrative Rules (OAR) Chapter 340 Division 11, or as the
5 Commission may otherwise direct. If Metro does not request a hearing within
6 twenty-one (21) days of mailing of this order, Metro shall waive the right
7 to a hearing under ORS Chapter 183. In the absence of a timely answer and
8 request for hearing, this Order shall become final and effective on
9 March 24, 1989, and thereafter shall not be subject to judicial review.

10 8. Reservation of Commission Rights

11 If Metro chooses to carry out the alternative requirements of Section 4
12 in place of the requirements of Section 3 of this Order, the Commission
13 reserves the right to revise its order to require Metro to implement the
14 certification and compliance rate incentive activities of the 1986 waste
15 reduction program if at any time the Commission determines that, in the
16 judgement of the Commission, the solid waste planning process called for in
17 paragraphs 4.H. and 4.L. of this Order is not producing or is not expected
18 to produce a waste reduction program substantially equivalent to or stronger
19 than the original 1986 waste reduction program. The Commission also
20 reserves the right to order any portion of the 1986 Waste Reduction Program
21 not otherwise expressly ordered in the alternative requirements.

IT IS SO ORDERED:

ENVIRONMENTAL QUALITY COMMISSION

3/24/89
Date

By William P. Hutchison
William P. Hutchison
Chair

3/24/89
Date

By Fred Hansen
Fred Hansen, Director
Department of Environmental Quality
Pursuant to OAR 340-11-136(2) and
approved motion of Environmental
Quality Commission on March 3, 1989

METRO

2000 SW First Avenue
 Portland, OR 97201-5398
 (503) 221-1646
 Fax 241-7417

December 21, 1990

Stephanie Hallock
 Hazardous and Solid Waste Division
 Department of Environmental Quality
 811 S.W. Sixth Avenue
 Portland, OR 97204-1390

RECEIVED
 DEC 21 1990

Hazardous and Solid Waste Division
 Department of Environmental Quality

Re: Request for change to Order No. SW-WR-89-01, 4.1.(b) Timeline for Salvageable Construction Materials

Executive Officer
 Rena Cusma

Metro Council
 Tanya Collier
 Presiding Officer
 District 9

Gary Hansen
 Deputy Presiding
 Officer
 District 12

David Saucy
 District 1

Lawrence Bauer
 District 2

Jim Gardner
 District 3

Richard Devlin
 District 4

Tom Defardin
 District 5

George Van Bergen
 District 6

Ruth McFarland
 District 7

Judy Wyers
 District 8

Roger Buchanan
 District 10

David Knowles
 District 11

Dear Ms. Hallock:

Metro would like to request that the Environmental Quality Commission (EQC) consider a change to the Waste Reduction Unilateral Order for the purpose of expanding the focus for increased recovery of the construction, demolition and land clearing debris wastestreams. We are requesting that the Department forward this request to the EQC which includes the attachments to this letter.

As we have discussed on several occasions, Metro has demonstrated a need to change the EQC Order based on a comprehensive technical analysis, conducted to assess the recovery potential of construction, demolition and land clearing debris. Salvageable construction material represents a very small component of this wastestream. The technical analysis has indicated that the recovery of salvageable construction materials can technically and economically be done in the region as a component of a larger recovery system aimed at construction, demolition and land clearing debris. This expanded recovery system will take additional time to procure from the facility implementation schedule identified in the EQC Order (Section 4.I.(b)) for salvageable construction materials.

The expanded procurement schedule for the construction, demolition and land clearing debris processing system is identified on page 78 of the adopted *Special Waste Chapter* to the *Regional Solid Waste Management Plan (RSWMP)*. This is the same schedule proposed during our earlier discussions on this issue (refer to July 2, 1990 letter, attached).

We appreciate your assistance on this matter and continued support from the Department for this change to the EQC Order. I have attached the September 12, 1990 letter from Fred Hansen to Rena Cusma which states:

"The Solid Waste Reduction staff has met with Bob Martin and Rich Carson, and understand that Metro would like to proceed

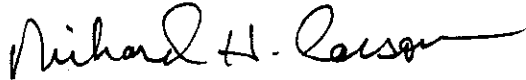
Stephanie Hallock
Department of Environmental Quality
December 21, 1990

with development of one or more facilities (construction/demo facilities) on a timeline different from that contained in the Order. The Department feels that this has merit and that Metro should request in writing a modification of the Order to accomplish this.

I hope that this information as well as any additional statement of support from DEQ for this change are forwarded to the EQC from the Department for purposes of their discussions.

Please let me know if I can be of further assistance in this matter. I look forward to your scheduling this issue with the EQC.

Sincerely,



Richard Carson, Director
Planning & Development Department

cc: Rena Cusma
Bob Martin
Metro Council



Department of Environmental Quality

RECEIVED
SEP 19 1990

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

September 12, 1990

Rena Cusma, Executive Officer
Metro
2000 SW 1st Avenue
Portland, OR 97201

RE: Metro Waste Reduction Program

Rena
Dear Ms. Cusma:

The Department has reviewed the reports submitted June 29, 1990 and January 2, 1990 on implementation of Metro's Waste Reduction Program. Overall, we find that Metro has made significant progress implementing the program and has met most of the requirements of the Environmental Quality Commission (EQC) Order SW-WR-89-01, as outlined on the attached memo. We would like to acknowledge the tremendous amount of effort and many successes Metro has enjoyed in implementing this important program.

There are still unresolved issues, however, concerning acceptance of lumber and reusable building materials as source separated recyclable material at Metro-area disposal sites, and concerning facilities for salvageable construction materials. Regarding disposal sites (subparagraph 4A(a) of the Order), although Metro is in compliance with the Order, the Department does not concur with Metro that it is not feasible to accept lumber and reusable building materials at any Metro-area disposal site. The attached memo outlines some analyses that should be made and sites that should be further evaluated for establishing recycling of source-separated construction materials.

Regarding development of facilities for recovery of salvageable materials from demolition and construction debris (subparagraph 4I(a) of the Order), the Solid Waste Reduction staff has met with Bob Martin and Rich Carson, and understand that Metro would like to proceed with development of one or more facilities on a timeline different from that contained in the Order. The Department feels that this has merit and that Metro should request in writing a modification of the

Rena Cusma, Metro Executive Officer
September 12, 1990
Page 2

Order to accomplish this. This change will then need to go
to the Environmental Quality Commission for approval.

If you have any questions, please feel free to contact me or
David Rozell, Solid Waste Reduction and Recycling Manager, at
229-6165.

Sincerely,



Fred Hansen
Director

Thanks

FH:phs
Attachment

cc: Environmental Quality Commission

METRO

2000 SW First Avenue
Portland, OR 97201-5398
(503) 221-1646
Fax 241-7417

July 2, 1990

Stephanie Hallock
Hazardous and Solid Waste Division
Department of Environmental Quality
811 SW Sixth Avenue
Portland, Oregon 97204-1390

Re: Order No. SW-WR-89-01, 4.I.(a) & (b)
Salvageable Construction Materials

Dear Ms. Hallock:

The EQC Order requires that Metro determine if specific geographic areas can support a facility or facilities for the recovery of salvageable construction materials (including lumber). Metro has conducted an extensive technical and economic analysis (Special Waste Technical Report, attached) over the past year and a half in order to make such a determination. The technical analysis leads to the conclusion that the most economically viable strategy includes the recovery of this material as one component of a recovery system which is aimed at a much larger volume of the overall waste stream. Specifically, the analysis supports the conclusion that in order to be economically feasible, salvageable construction materials need to be recovered as a part of a larger recovery system for all construction and demolition debris.

Metro waste composition studies indicate that salvageable construction materials (reusable building materials) landfilled represents approximately 4,000 tons per year or 2% of the construction and demolition debris waste stream. The material consists primarily of two types: high-value reusable building materials, and low-value reusable building materials. Low-value reusable building materials are what is typically landfilled, consisting of used bricks, scrap copper pipe, siding and scrap lumber.

The technical analysis included an analysis of a management option to reclaim reusable building materials. The option consisted of a total of four depots located to provide uniform service throughout the region. The depots would be sized to accept in total 10,500 tons per year. The depots are sized to accept larger volumes than the amount land disposed since it is assumed that the materials are typically kept in storage, and generators may change their disposal habits to take advantage of the free service. The depots would have a receiving area in front,

Executive Officer
Rena Cusma

Metro Council

Mike Ragsdale
Presiding Officer
District 1

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a pole building that would provide an area for working, storage and retail, a small office and a large storage area at the back of the depot. The equipment required to operate the depots is limited to a forklift and storage bins. The direct cost of the depots is estimated at \$60.00 per ton recycled. Although the value of the materials collected may provide some off-setting revenues no internalized benefits can be demonstrated. Therefore the development of the depots would require some form of system subsidy.

The technical analysis indicates that recovery of salvageable building materials can be done, but at a very high cost per ton recovered. The analysis further indicates that a much more economically viable alternative exists to recover the salvageable building material waste stream. That alternative is to manage the recovery of this material as a component of a larger recovery system aimed at construction and demolition debris and land-clearing debris.

Construction and demolition debris and land-clearing debris account for approximately 259,500 tons of material landfilled in 1990. Due to its bulkiness these materials are not compatible with the long haul disposal system being developed for MSW since they can cause considerable damage to compactors and transport vehicles. Given its large volume and the fact that the material is produced by several similar activities an opportunity exists to develop a separate system to better promote were feasible the recycling of the material.

A number of potential management options were explored for construction and demolition debris and land-clearing debris. From the options developed it is apparent that the processing and recovery of the waste stream is an economically viable approach. A prototype of a construction/demolition debris processing center was analyzed which assumes a separate site equipped and staffed to handle 121,000 tons per year, or about 50 percent of the waste material. The facility could recover 80% of incoming material (97,000 tons recovered) with 20% as residual (24,200 tons landfilled). This option also allows for the handling of land-clearing debris due to the addition of a shredder to process whole logs and heavy brush. Wood could be shredded and used for hog fuel or wood pellets. Concrete and asphalt could be recovered and crushed for aggregate, and ferrous metals and cardboard recovered and sold for recycling. Inert soils could be used for road fill, quarry reclamation, or other purposes. The estimated levelized cost per ton for this management option is \$8.00 per ton.

Although the technical analysis fully analyzed three different configurations of a processing facility for the material, a processing system can take many forms which may out perform the facility described above. Examples include

the co-location of processing facilities with landfills or the expansion and modification of existing facilities. Metro in developing a system to manage the material will consider all possibilities with the only stipulation that processing be emphasized to the greatest extent possible.

This type of construction/demolition and land clearing debris recovery system is expected to cost approximately \$6-8 million as an initial investment and represents a major solid waste system component. Metro policy for getting facilities like this on line is to conduct a competitive procurement process. It is expected that through the procurement process a determination of number and types of facilities necessary to recover this material will be made.

Prior to and in conjunction with the construction/demolition debris recovery system, the processing of source separated and high quality mixed wood debris will take place at Metro East, OPRC, Grimms Fuel, Inc., and Lakeside Reclamation (principally stumps).

A preliminary schedule for proceeding with the development of recovery facility(ies) for construction and demolition debris is as follows:

December 1990	Council Approves Special Waste Chapter.
July 1991	Metro Releases RFP.
September 1991	RFP's Received.
January 1992	Proposal Awarded.
July 1992	Start Facility Construction.
January 1994	Facility starts operation

Based on the approach described above for managing construction and demolition and land clearing debris, the requirements of the EQC Order can be addressed as follows:

April 1, 1990 (July 2, 1990 letter) - determine if specific geographic areas can support (based on technical and economical analysis) recovery of salvageable construction materials.

The special waste technical analysis conducted by Metro indicates that the recovery of salvageable construction materials can technically and economically be done in the region as a component of a larger recovery system aimed at construction/demolition and land clearing debris. Specific geographic locations for a construction/demolition debris system cannot be determined until a competitive procurement

process has been completed in accordance with the schedule above. It is expected that during the procurement process, Metro will receive cost proposals and recovery systems for both a single facility for the region as well as multiple (de-centralized) facilities.

It should be noted that based on our discussion of June 28, 1990 you concluded that interpretation of this section of the EQC Order indicates that Metro needs to determine if specific geographic areas can support facilities. Your interpretation further concluded that Metro did not have to identify specific geographic areas in the region where facilities would be located. This interpretation is different than that suggested in the May 9, 1990 letter from Dave Rozell (attached). The letter requests that Metro determine "the specific geographic area that each facility is expected to serve."

Based on our June 28th discussion, Metro has met this provision of the EQC Order by determining that the region, as a geographic area, can support the recovery of salvageable construction materials as a component of a larger recovery system for construction/demolition and land-clearing debris.

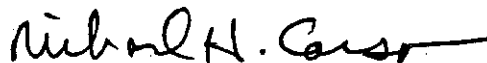
January 1, 1991 - provide assurance that facilities identified are operating or will be constructed for each geographic area capable of supporting a facility.

Metro East, OPRC, Lakeside Reclamation and Grimms Fuel Inc., will provide for the recovery of relatively clean loads of wood waste in early 1991.

Construction and operation of a facility(ies) to recover all construction and demolition debris will occur consistent with the above schedule.

Should you have any further questions on this matter please don't hesitate to contact me.

Sincerely,



Richard H Carson, Director
Planning and Development Department

cc: Rena Cusma, Executive Director
Bob Martin, Director of Solid Waste
Dave Rozell, Manager DEQ Waste Reduction Section

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the Matter of the)
NPDES Waste Discharge)
Permit No. 3754-J,) NOTICE OF EQC ACTION
James River II, Inc.,) ON MOTION FOR AN ORDER
Wauna Mill, and the NPDES) IDENTIFYING ISSUES
Waste Discharge Permit)
No. 100715, City of St. Helens)

1. The Boise Cascade Corporation filed a motion for an order identifying issues in this contested case proceeding. The City of St. Helens joined the motion.

2. The Environmental Quality Commission (EQC) will consider, and may act upon, this motion at its meeting on Monday, March 11, 1991. The EQC will take up this matter at approximately 11:00 a.m. The meeting will be held in Room 3A of the DEQ offices at 811 SW Sixth Avenue, Portland, Oregon.

3. The parties to the proceeding may submit written memoranda on the motion, providing that all written materials are received by the Director's Office of DEQ no later than 5:00 p.m., Monday, March 4, 1991.

4. The EQC will allow limited oral argument on the motion. Each party will have a maximum of 10 minutes to

///

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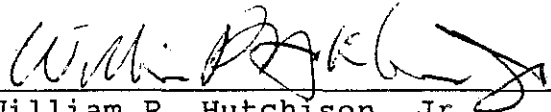
///

1 - NOTICE OF EQC ACTION
(5995H/dld)

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WATER QUALITY DIVISION
DEPT. OF ENVIRONMENTAL QUALITY

address the EQC. The parties are encouraged to use this time to summarize their written materials.

DATED this 21 day of February, 1991.



William P. Hutchison, Jr.
Chair
Environmental Quality Commission
for the Commission

CERTIFICATE OF SERVICE

I certify that on February 21, 1991, a copy of the Notice of EQC Action on Motion for an Order Identifying Issues was served on all parties of interest by depositing said copy in the United States Mail, postage prepaid, addressed on the attached pages:



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Assistant Attorney General

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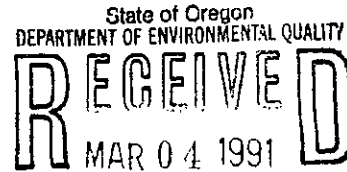
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March 4, 1991

cc Taylor
Houston
Denecke

⇒ HLS



OFFICE OF THE DIRECTOR

BY MESSENGER


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

Re: Contested Case Hearing on NPDES Permit No.
100715, Issued to the City of St. Helens

Dear Mr. Hansen:

Enclosed please find Boise Cascade Corporation's Supplemental Memorandum in Support of Boise Cascade Corporation's Motion for an Order Identifying Issues. Copies of this document have been mailed to the persons on the attached service list, including Hearings Officer Denecke.

Very truly yours,


Michael R. Campbell

Enclosure
cc (w/enclosure): Service List

mrcpaw09 15760/133

1 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
2 OF THE STATE OF OREGON

3 In the matter of National) SUPPLEMENTAL MEMORANDUM IN
4 Pollutant Discharge Elimination) SUPPORT OF BOISE CASCADE
5 System Waste Discharge Permit) CORPORATION'S MOTION FOR AN
6 No. 100715, issued to the City) ORDER IDENTIFYING ISSUES
7 of St. Helens on November 14,)
8 1990)

9 In accordance with the Commission's notice of
10 February 21, 1991, Boise Cascade Corporation (Boise Cascade)
11 submits this supplemental memorandum in support of its motion
12 for an order identifying issues. Since the motion was filed,
13 the Department has filed its Initial Case Statement, and Region
14 10 of the U.S. Environmental Protection Agency (EPA) has issued
15 a final total maximum daily load (TMDL) for 2,3,7,8-
16 tetrachlorodibenzo-p-dioxin (TCDD) in the Columbia River Basin.
17 These documents are consistent with Boise Cascade's motion, and
18 indeed provide further support for it.

19 I. TCDD CRITERION

20 In developing effluent limits and the TMDL for TCDD,
21 the Department and EPA have used the presumptive TCDD water
22 quality criterion of 0.013 parts per quadrillion (ppq)
23 referenced in OAR 340-41-205(2)(p)(B). As explained more fully
24 in Boise Cascade's previous memorandum, OAR 340-41-205(2)(p)(C)
25 gives Boise Cascade and other parties the right to rebut this
26 presumptive criterion with scientific evidence introduced in
27 the context of an individual permit decision. Because of the
28 great expense and effort required to produce and present such

1 evidence, Boise Cascade's motion is simply intended to resolve
2 any doubts about this issue at the outset of the proceeding.

3 The Department's Initial Case Statement, filed on
4 February 22, 1991, shows that the Department considered OAR
5 340-41-205(2)(p)(C) in establishing the City of St. Helens'
6 TCDD effluent limits. See DEQ Initial Case Statement at 5.
7 Although the Department chose not to use a TCDD criterion that
8 was different than the presumptive criterion of 0.013 ppq, its
9 consideration of subparagraph (C) demonstrates that the
10 Department itself believes that the presumptive criterion is
11 subject to modification in the context of individual permit
12 decisions. As the governing body of the Department, the
13 Commission's authority and obligation to consider subparagraph
14 (C) evidence in this proceeding is certainly no less than that
15 of the Department.

16 II. TMDL ISSUES

17 In setting TCDD effluent limits for the City of St.
18 Helens, the Department relied on a draft TMDL developed by EPA,
19 which proposed a TCDD wasteload allocation (WLA) of 0.27
20 milligrams per day (mg/day).¹ On February 25, 1991, EPA issued
21 a final TMDL, which contained the same WLA for the City as the
22 draft TMDL.

25 ¹ The WLA was established for Boise Cascade's St. Helens
26 Mill but must be applied to the City of St. Helens' sewage
treatment works, into which the mill's process wastewater is
discharged.

1 Boise Cascade's motion for an order identifying
2 issues seeks to make clear at the outset of this proceeding
3 that it has the right to present evidence that a different TCDD
4 WLA for the City is more appropriate or legally required.
5 DEQ's Initial Case Statement shows that it considered such
6 evidence in evaluating EPA's TMDL and associated WLAs. See DEQ
7 Initial Case Statement at 5. The Commission has the authority
8 and obligation to do no less.

9 As Boise Cascade described in its previous
10 memorandum, even if one assumes that EPA properly promulgated a
11 final TMDL and associated WLAs, and that these are binding on
12 Oregon,² the state has a continuing obligation to promulgate a
13 TMDL and WLAs of its own. This obligation is not negated by
14 EPA action in accordance with its own obligation to promulgate
15 a TMDL upon the state's failure or refusal to do so.

16 In the Department's Initial Case Statement and in
17 EPA's final TMDL, both the Department and EPA agree that the
18 TMDL and WLAs are subject to revision and must be revised upon
19 a demonstration that the TMDL and WLAs are improper. See,
20

21 ² Boise Cascade does not agree that EPA's TMDL and
22 associated WLAs were properly promulgated or are binding on
23 Oregon. For example, subsection 303(d) of the Clean Water Act,
24 33 USC § 1313(d), which grants EPA the authority to establish
25 TMDLs upon a state's failure to establish a TMDL of its own,
26 does not mention WLAs. Notwithstanding EPA regulations to the
contrary, EPA's statutory authority is limited to the
establishment of TMDLs. WLAs are effluent limits for
individual point sources, which must be established in
conjunction with NPDES permits. In states with NPDES permit
authority, including Oregon, only the state may establish such
effluent limits.

1 e.g., DEQ Initial Case Statement at 4; EPA TMDL Decision
2 Document at 3-5. EPA has also made clear that, even without
3 revising the TMDL itself, Oregon may adjust the WLAs for its
4 point sources so long as the adjustments are consistent with
5 the TMDL.³ See EPA TMDL Decision Document at 3-6.

6 Thus, the Commission has the authority and obligation
7 in this proceeding to consider evidence concerning the
8 appropriate TMDL for TCDD in the Columbia River Basin as well
9 as the appropriate TCDD effluent limits associated with the
10 TMDL. For example, as discussed above, the parties to this
11 proceeding have the right to introduce scientific evidence to
12 rebut the presumptive TCDD water quality criterion of 0.013
13 ppq. If the 0.013 ppq criterion is rebutted, the foundation
14 for EPA's TCDD TMDL will be eliminated because the TMDL was
15 expressly based on this criterion.⁴ See EPA TMDL Decision
16

17 ³ Oregon's authority to adjust WLAs without revising the
18 underlying TMDL is not limited to streams such as the
19 Willamette River that lie wholly within Oregon. Given the
20 Department's and EPA's assumption that all TCDD discharged into
21 the Columbia River Basin eventually reaches the Pacific Ocean,
22 the Willamette River, which discharges into the Columbia River,
is no less an "interstate" water than the Columbia River. An
increase in the WLA for a TCDD point source on the Willamette
River necessarily decreases the amount of the TMDL that is
available for TCDD point sources on the Columbia River.

23 ⁴ The Superior Court of Washington for Thurston County
24 invalidated the Washington Department of Ecology's
25 interpretation that its narrative criterion for toxic
26 pollutants established a 0.013 ppq water quality criterion for
TCDD. See EPA TMDL Decision Document at A-2, n. 1. In
addition, Idaho's narrative criterion does not apply to
identified point source discharges of TCDD from Oregon because
those discharges do not reach Idaho waters. Therefore, EPA

(continued...)

Page

4 - SUPPLEMENTAL MEMORANDUM IN SUPPORT OF BOISE CASCADE
CORPORATION'S MOTION FOR AN ORDER IDENTIFYING ISSUES

1 Document at A-1 to A-2. Therefore, rebuttal of the 0.013 ppq
2 criterion would alone require Oregon to revise the TMDL and
3 associated WLAs.

4 It is perhaps important to emphasize that Oregon's
5 establishment or revision of a TMDL for the Columbia River is
6 not particularly complicated by the fact that the northern half
7 of the river lies within Washington. A state, of course, may
8 not issue an NPDES permit that allows a discharger to violate
9 the water quality standards of downstream or adjacent states.
10 But a TMDL must be established by a state for its own waters
11 and must be based on its own water quality standards.⁵ See 33
12 USC § 1313(d). If the effluent limits necessary to meet an
13 Oregon TMDL for TCDD were not sufficient to meet Washington's
14

15 ⁴(...continued)
16 established the TMDL for the entire Columbia River Basin by
17 relying on Oregon's presumptive TCDD water quality criterion of
18 0.013 ppq. In doing so, EPA did not consider OAR 340-41-
19 205(2)(p)(C).

20 ⁵ The Clean Water Act provides:

21 "(1)(A) Each State shall identify
22 those waters within its boundaries for
23 which the effluent limitations required by
24 section 1311(b)(1)(A) and section
25 1311(b)(1)(B) of this title [requiring
26 certain technology-based effluent limits]
27 are not stringent enough to implement any
28 water quality standard applicable to such
29 waters. ***

30 * * * * *

31 "(C) Each State shall establish for
32 the waters identified in paragraph (1)(A)
33 ***, the total maximum daily load ***."
34 33 USC § 1313(d) (emphasis added).

1 TCDD water quality standards for the Columbia River, Oregon
2 would have to impose, in the permit issuing process, additional
3 effluent limits on its TCDD point sources, but those limits
4 would be separate from the limits required by Oregon's TMDL.
5 Moreover, any conflicts between states regarding the permit
6 effluent limits necessary to prevent violations of their water
7 quality standards can be, and must be, resolved through EPA's
8 NPDES permit veto authority. See 33 USC § 1342(d)(2); Oklahoma
9 v. EPA, 908 F2d 595, 608 (10th Cir 1990). There is, then, no
10 practical justification, and certainly no legal justification,
11 for a state to avoid its obligation to establish TMDLs for
12 those portions of its waters that flow into or mingle with the
13 waters of other states.⁶

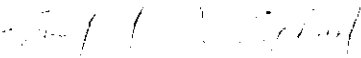
14 III. CONCLUSION

15 This proceeding concerns issues of great
16 environmental and economic importance to Oregon. The parties
17 have hitherto shown that they have the legal and scientific
18 resources to present these issues in such a way that the
19 Commission will be able to make an informed and appropriate
20

21 _____
22 ⁶ Although nearly all major bodies of water in the United
23 States are "interstate" waters in the sense that they are
24 shared by or flow through more than one state, Congress made no
25 provision for the establishment of interstate TMDLs or the
26 establishment of TMDLs by EPA in the first instance. See 33
27 USC § 1313(d). EPA's authority to establish a TMDL is limited
28 to those circumstances in which it has disapproved a TMDL that
29 was either actually or constructively submitted by a state.
30 See Scott v. City of Hammond, Ind., 741 F2d 992, 996-98 (7th
31 Cir 1984); Environmental Defense Fund, Inc. v. Costle, 657 F2d
32 275, 295 (DC Cir 1981).

1 resolution of them. That resolution would be aided by having
2 all of these issues resolved at the same time in a single
3 proceeding. For these reasons, and for the reasons set forth
4 above and in its previous memorandum, Boise Cascade
5 respectfully urges the Commission to grant Boise Cascade's
6 Motion for an Order Identifying Issues.


7 DATED: March 4, 1991.

8
9 
10 _____
11 Richard Baxendale
12 Brian J. King
13 Michael R. Campbell
14 Of Attorneys for
15 Boise Cascade Corporation
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CERTIFICATE OF SERVICE

1 I certify that on March 4, 1991, I served the
2 foregoing SUPPLEMENTAL MEMORANDUM IN SUPPORT OF BOISE CASCADE
3 CORPORATION'S MOTION FOR AN ORDER IDENTIFYING ISSUES on each of
4 the persons on the attached service list by depositing with the
5 United States Postal Service at Portland, Oregon, a true and
6 complete copy thereof, addressed to each of those persons at
7 their addresses stated thereon, and with first-class postage
8 prepaid.

9 DATED this 4th day of March, 1991.

10
11 
12 _____
13 Michael R. Campbell
14 Of Attorneys for
15 Boise Cascade Corporation
16
17
18
19
20
21
22
23
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25
26

SERVICE LIST

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- 24 Linda K. Williams
25 1744 N.E. Clackamas Street
Portland, Oregon 97232
- 26

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the matter of the)	
NPDES Waste Discharge)	
Permit No. 3754-J,)	
James River II, Inc.,	)	NCAP/CRU'S
Wauna Mill, and the NPDES	)	RESPONSE TO BOISE
Waste Discharge Permit	)	CASCADE'S MOTION FOR
No. 100715, City of	)	AN ORDER IDENTIFYING
St. Helens	)	ISSUES

The mills are seeking relief in the wrong proceeding. The appropriate means of changing Oregon's water quality standards is to petition the EQC for a rulemaking proceeding or litigate the standard in court.

OAR 340-41-250(2)(p)(C) (hereafter "Sub-C") is not available for launching a fundamental challenge to the water quality standard based on the very issues (potency, consumption, etc.) on which the standard was based, and which issues apply equally to all dischargers of TCDD.

Sub-C was narrowly designed to provide an occasional safety valve for a truly site-specific difference in the river (receiving water) at a specific location that was not within the contemplation of the water quality standard as written. For example, a segment of a river with a unique hydrological system may call for the consideration of site-specific factors. Sub-C was not designed (and could not legally be designed) to undercut the certainty of the water quality standard on non-site-specific bases, simply because a permit holder filed a contested case appeal.

Moreover, a federally promulgated TMDL cannot be challenged in this hearing, as the mills seek to do. Given the recent final adoption of the Columbia River Basin's TMDL, after the filing of the Boise Cascade motion, Boise Cascade and others have an available forum for challenge in federal court.

We fully support, however, Boise Cascade's attempt to seek clarification of this issue at this early stage of the proceeding. If the EQC grants this particular motion, the most fundamental legal issue in this contested case will have been definitively settled by the EQC. Since EQC's action will be binding on the hearings officer, and will provide a clear official position of the regulatory body of the State of Oregon abandoning the strict application of its water quality standard for TCDD, any notion that these permits constitute an approved ICS under the federal 304(l) toxic "hot spots" program will be untenable. Since EPA must take its approval/disapproval action before March 31 to meet the order of the Ninth Circuit entered on January 3, 1991 (Boise Cascade v. EPA, No. 89-72408), timely action by the EQC will provide welcome clarification.

Indeed, the very filing of Boise Cascade's motion and its pendency is, in our view, sufficient to cloud the ICS status of the November 14 permits so as to make them not approvable by EPA.

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3 -- NCAP/CRU'S RESPONSE TO BOISE CASCADE'S MOTION FOR AN ORDER IDENTIFYING ISSUES

I. ALLOWING THE MILLS TO CHALLENGE OREGON'S WATER QUALITY CRITERION OF .013 PPQ FOR TCDD WOULD VIOLATE OREGON LAW

Pursuant to its regulations, DEQ has adopted a water quality criterion (standard) for TCDD in the Columbia River Basin of .013 ppq. This standard applies to all polluters unless there are unique circumstances that warrant a departure from it. In their Motion for Order Identifying Issues, the mills do not ask to argue for such a departure, presumably because they have no unique circumstances to offer. Instead, they ask for permission to challenge the .013 ppq standard itself. This challenge is barred by Oregon law.

A. The Mills' Misuse of Sub-(C) Cannot Be Used as the Basis for Altered TCDD Limitations in the Mills' Permits

The mills cite Sub-(C) as the basis for their Motion to present evidence on the TCDD limitations in their permits.¹ But this regulation is inapplicable to their permits. OAR 340-41-205(2) (p) provides:

(p) Toxic Substances:

. . . .

(B) Levels of toxic substances shall not exceed the most recent criteria values for organic and inorganic pollutants established by EPA and published in Quality Criteria for Water (1986). A list of the criteria is presented in Table 20.

(C) The criteria in paragraph (B) of this subsection shall apply unless data from scientifically valid studies demonstrate that the most sensitive designated beneficial uses will not be adversely affected by

¹ Boise Cascade's Motion For An Order Identifying Issues, page 1 (hereafter, "Motion for an Order").

exceeding a criterion or that a more restrictive criterion is warranted to protect beneficial uses, as accepted by the Department on a site specific basis. . . . (emphasis added).

The mills correctly point out that Table 20, referenced in Sub-(B), establishes a water quality criterion for the protection of human health at 0.013 ppq. This criterion was adopted by EPA in Quality Criteria for Water (1986) and adopted by Oregon pursuant to Sub-(B). It is this criterion, not a site-specific criterion, that must be applied to the mills' permits.

1. The regulatory presumption is that the Sub-(B) criteria apply, and there is no exception here

The mills have misrepresented the EQC regulation. Sub-(C) expressly states that the Sub-(B) criteria (the water quality standards) "shall apply unless" an exceptional Sub-(C) situation exists. The mills attempt to reverse this plain language when they argue that "the subparagraph (B) criteria apply only in the absence of scientific evidence that demonstrates that more or less stringent criteria are required to protect designated beneficial uses."² This interpretation is incorrect because it would eliminate the express presumption of applicability of the Sub-(B) water quality standard and create a presumption of non-applicability. It would rely instead on an ill-defined Sub-(C) exception process for all pollution controls.

² Memorandum in Support of Boise Cascade Corporation's Motion for an Order Identifying Issues, p.5 (hereafter "Memo in Support") (emphasis added).

2. The mills have failed to offer "site specific" data

The mills have made no offer to present site-specific data, the only proper data under Sub-(C). The phrase in EQC's regulation, "on a site specific basis," means that site specific data are the only type of data properly introduced under the Sub-(C) exception. The mills' interpretation would allow any polluter to submit any data under Sub-(C), ignoring the requirement that the data be "site specific." Sub-(C) allows for a narrow exception to an established state water quality standard. To grant the mills' motion and let general data be introduced under Sub-(C) (addressing cancer potency, fish consumption, or other factual and policy matters) would destroy the establishment of the standard under (B).

3. Sub-(C) does not authorize challenges to the water quality standard itself

The mills contend that the site specific phrase "makes clear that [certain] evidence may be presented in the context of individual permit decisions."³ True, but there is another restriction. The issues and data must be site-specific. The mills' approach would allow any NPDES permittee to avail itself of the Sub-(C) exception by simply asserting that, because a point source is offering the evidence, it is "site-specific." However, it is the evidence, not just the polluter, that must be site-specific.

³ Memo in Support, p.6.

The mills bootstrap their contrary argument by stating that the exception in Sub-(C) "necessarily" includes the right to demonstrate that the entire criterion (standard) is scientifically unsound. This is so, they argue, because otherwise they would only be able to challenge the criterion "if there was anything peculiar about the water body or its designated use."⁴ But this exception of "peculiar" circumstances is precisely what the Sub-(C) exception is for. Sub-(C) does not authorize the challenge to the Sub-(B) water quality standard which the mills desire to bring.

4. The "Hidden Agenda" of the Mills' Motion to Identify Issues" is to Open the Process to Constitutional Challenge

The pulp mills' motion would essentially make every one of Oregon's numerical standards only an advisory standard. The "real" water quality standards would only be the narrative, beneficial use regulation.

A similar narrative water quality standard to Oregon's was recently declared unconstitutionally vague. Simpson Tacoma Kraft

⁴ The mills argue: "[T]he phrase, on a site specific basis does not limit the scientific demonstrations contemplated by subparagraph (C) to demonstrations that a subparagraph (B) criterion is inappropriate only as applied to a specific water body. . . . Otherwise, the Department would be required to apply a demonstrably unsound water quality standard criterion . . . simply because there was no evidence that there was anything peculiar about the water body or its designated uses that would require an adjustment in the criterion." Memorandum in Support, p.6. Their argument reveals their true purpose: to challenge the "soundness" of the regulation adopting a TCDD water quality standard. Such a challenge can only occur through a petition for rulemaking or litigation.

Co. v. Department of Ecology, Memorandum Opinion, Superior Court for the State of Washington, County of Thurston, No. 90-2-00398-9, December 12, 1990, p.6. Allowing the mills to escape Oregon's numerical water quality criteria would expose EQC to the same "vagueness" argument that pulp mills argued successfully in Washington. Although NCAP/CRU do not agree that Oregon's narrative quality standard is unconstitutionally vague, the mills' strategy becomes clear when their motion is juxtaposed with the Washington case.

B. The Mills' Proposed Issues Would Involve Rulemaking, and Cannot be Considered in This Contested Case

Granting the mills' motion would allow a challenge to the water quality standard (WQS), the Total Maximum Daily Load (TMDL) and accompanying waste load allocations (WLAs), all of which were developed in lengthy rulemaking proceedings. To allow them to be the subject of a contested case would violate federal law, the Oregon APA, and violate the public trust.

1. The Mills' Motion Should Be Denied Because it Asks the Commission to Engage in Rulemaking

The mills wish to effectively create a new water (WQS), TMDL, and new WLAs. This is rulemaking, and must be done in that kind of proceeding.

The mills themselves assert that a TMDL is a "rule."⁵ The WQS, which they want to alter in this contested case, is even more clearly a rule. Under the Oregon APA, a rule is "any agency

⁵ Memorandum in Support, p. 9. They say that "a TMDL may fall within the Oregon APA's broad definition of a rule. . . ."

directive, standard, regulation or statement of general applicability" (emphasis added).⁶ The WQS for TCDD was promulgated as part of the Oregon Administrative Rules. Also see ORS 468.735, requiring that WQS be established "by rule." While it is true these standards and regulations are being applied to the mills specifically through their permits, this does not provide them the opportunity to challenge the underlying factual and policy basis for the establishment of the WQS and TMDL.⁷

EPA has specifically forbidden what what the mills seek to do here. As held in an EPA general counsel opinion:

A permit applicant may show, at an adjudicatory hearing, facts which would lead to the conclusion that the regulations are not applicable to its facility, but the applicant may not elicit or produce evidence alleging a lack of foundation for those regulations.⁸ (emphasis added)

Thus, the mills may produce evidence going to the issue of whether they are required to have permits in order to discharge toxics into the Columbia River. However, they can not raise issues pertaining to the validity of the WQS or TMDL.

The establishment of a "waste load allocation" (WLA) for a specific mill is likewise something they cannot challenge in the way they seek. Boise Cascade's memorandum states that WLAs "by

⁶ ORS 183.310(8).

⁷ See Motion for an Order, p.2.

⁸ *In Re United States Steel Corporation*, Decision of the General Council, No.3, March 6, 1975.

definition apply only to a single discharger,"⁹ and that they should therefore be able to challenge it in this contested case. However, all their bases for challenging the WLA actually attack the underlying water quality standard and the TMDL. These bases are challenges to: a. "the applicable water quality criterion"; b. "the model used to derive the TMDL"; c. the margin of safety in the TMDL; and d. allocation of loading by upstream sources. Boise Cascade's Motion for an Order, p.2. These claims attempt to challenge the whole WQS/TMDL process, not just their individual WLA. Accordingly, the Commission should not grant their extraordinary request to legitimize their alleged WLA challenges in this contested case proceeding.

2. These Rules Can Not be Challenged in a Contested Case Because Rulemaking Requires Rulemaking Procedures

Contrary to the mills' memoranda in support of their motion, rulemaking requires the application of rulemaking procedures. Although an agency may in some instances make certain decisions and develop policy in a contested case proceeding rather than in a rulemaking, if an action is in fact a rulemaking, the procedural requirements of rulemaking apply. The mills can not use a contested case proceeding to modify a rule (including a water quality standard, TMDL, or a WLA set on broad, generic grounds) that has been previously adopted by means of a rulemaking.

⁹ Memo in Support, p.10.

The mills state that "there is no statutory requirement that [the Commission] must adopt all rules that meet the APA definition through APA rulemaking proceedings" ¹⁰ This is an astounding assertion in the broad way that they make it, and directly contrary to text book administrative law (and Oregon authority). The Oregon Attorney General's Manual states that "[r]ulemaking is required when agency policymaking conforms to the statutory definition of 'rule.'" ¹¹ The mills' string-citation of two Oregon cases does nothing to support their position. Those cases, Forelaws on Board v. Energy Fac. Siting Council, 306 Or. 205, 214, 760 P.2d 212 (1988); Marbet v. Portland Gen. Elect., 277 Or. 447, 458-69, 561 P.2d 154 (1977), simply say that policy can sometimes be set in contested cases -- not that existing rules (such as the WQS) can be overturned in a contested case.

Furthermore, those cases only state that a contested case could be broadened to become a rulemaking proceeding if, for example, the EQC chose to initiate contemporaneous rulemaking proceedings or invite the rest of the public in to the contested case to comment, without restricting them to evidentiary procedures, Marbet v. Portland General Electric, 277 Or. 447, 464 (1977), something nobody has proposed here. The mills' attempt to assert that the general public has already had a chance of

¹⁰ Id.

¹¹ Oregon Attorney General's Administrative Law Manual, p.13 (1988).

access (now foreclosed), is disingenuous. The public was never told that this proceeding would be turned into a de facto rulemaking proceeding to revise the TCDD water quality standard, as the mills now propose.

More fundamentally, however, Marbet allows this exception for policymaking in contested cases only where the agency's statute leaves procedures unclear. "Where the act does not itself prescribe that standards must be rules," id. 464, another procedure is possible. But Oregon's pollution statute says, "the commission by rule may establish standards of quality and purity for the waters of the state. . . ." ORS 468.735(1).

This requirement of rulemaking is to allow the public, not just the parties, have input in the process. Allowing the mills' to put their claims at issue here would subvert the public trust by overturning the WQS, TMDL, and WLAs which were developed after extensive public comment, including comment by the mills. Just how are the ordinary citizens of Oregon supposed to participate in this odd new proceeding that seeks to destroy their TCDD standard?

The Oregon APA contains a provision for precisely what the mills seek. ORS 183.390 provides for a petition for rulemaking, which states that that any person may initiate a rulemaking action by petitioning the agency to adopt, amend, or repeal any rule. The mills must be told that their arguments and evidence concerning the WQS and TMDL must be submitted in a proper

petition for rulemaking, not some "motion to identify issues" that is unknown to the Administrative Procedure Act.

II. THE FEDERAL REGULATIONS GOVERNING NPDES PERMITS PROHIBIT GRANTING THE MILLS MOTION

Oregon's NPDES permit program is also governed by federal regulations, which require the mills' permits to apply the adopted water quality standards, not some ad hoc standard created in a contested case proceeding by the mills' testimony. Contrary to Boise Cascade's assertion that Oregon's water quality standards "are only provisionally applicable,"¹² those standards are binding for the TCDD limitations in the mills' permits and can not be set aside in this proceeding as the mills ask.

Granting exceptions to the statewide TCDD standard to the very polluters who are identified as major sources of that toxic would render the word "standard" meaningless. If EQC should grant such exceptions, Oregon's role in implementing the Clean Water Act, particularly § 304(1), would be seriously jeopardized. It would have to lead to EPA promulgating its own ICSs and permits.

A. Federal Regulations Require the Mills' Permits be Based on Oregon's Established Criterion of .0013 ppg

Oregon's right to issue NPDES permits under the Clean Water Act is conditioned upon its compliance with federal rules

¹² Memorandum In Support, page 5.

governing NPDES programs.¹³ The mills' motion fails to mention these crucial regulations, which govern what are permissible bases for the TCDD effluent limitations in their NPDES permits.

The federal regulation governing state NPDES programs requires effluent limitations in NPDES permits which are necessary to "[a]chieve water quality standards under section 303 of the CWA . . ."¹⁴ Oregon's program is governed by federal requirement (d) (1) (iii). In cases where a state determines:

that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant.

40 C.F.R. 122.44(d) (1) (iii) (emphasis added). Thus, since it has been determined that the mills' discharges create an excursion above the State numeric criterion, their permits must contain effluent limitations based on that criterion.

¹³ Federal Water Pollution Control Act, § 402(c) (2):

"Any State permit program under this section shall at all times be in accordance with this section and guidelines promulgated pursuant to section 1314(i) (2) of this title."

Section 1342(i) (2) addresses "guidelines establishing the minimum procedural and other elements of any State program under section 1342 of this title . . ."

¹⁴ 40 C.F.R. § 122.44(d) (1).

The TCDD effluent limitations in James River II and Boise Cascades' permits were based on EPA's June 14, 1990, Draft TMDL.¹⁵ That TMDL was in turn based on Oregon's numerical criterion for TCDD of 0.013 ppq.¹⁶ Therefore, the TCDD limitations are correctly based on Oregon's 0.013 ppq criterion pursuant to § 122.44(d)(1)(iii). This is the only applicable criterion available under the federal regulations, given Oregon's adoption of a numeric criteria for TCDD.¹⁷ Contrary to Boise Cascades's assertions,¹⁸ the TCDD criterion of 0.013 is not "provisionally applicable" to the mills' permits. Rather, it is the only applicable criterion to apply.

B. Site-Specific Criteria Can Not be the Basis for the Mills' Permits Consistent With Federal Regulations

Although NPDES regulations allow states in some instances to base effluent limitations on calculated, site-specific criteria in a way somewhat akin to what the mills seek have (as opposed to

¹⁵ NPDES Permit No.100716, page 3 (James River II); NPDES Permit No. 100715, page 3 (City of St. Helens).

¹⁶ NOTICE OF PROPOSED ESTABLISHMENT OF A TOTAL MAXIMUM DAILY LOADING (TMDL) TO LIMIT DISCHARGES OF DIOXIN TO THE COLUMBIA RIVER BASIN, pages 7-8 (June 14, 1990).

¹⁷ The standard on which the permits' TCDD limitations were based is found in OAR 340-41-205(2)(p)(B) which states:

Levels of toxic substances shall not exceed the most recent criteria values for organic and inorganic pollutants established by EPA and published in Quality Criteria for Water (1986). A list of the criteria is presented in Table 20.

¹⁸ Memo in support, page 5.

established criteria such as the one Oregon adopted in 1986), the practice is strictly limited. 40 C.F.R. 122.44(d)(1)(vi)(A) allows the establishment of effluent limitations on solely a "use" basis only

[w]here a State has not established a criterion for a specific chemical pollutant. . . .

40 C.F.R. 122.44(d)(1)(vi).¹⁹ In such a situation, but not in Oregon's TCDD program, a state can use a

calculated numeric water quality criteria for the pollutant which the [state] demonstrates will attain and maintain applicable narrative water quality criteria and will fully protect the designated use.

Id. (Emphasis added.)

This (d)(1)(vi) process, which is the only federal regulatory process that comes close to a case-by-case approach such as the mills seek, is not available, given Oregon's established TCDD standard of 0.013 ppq, a numeric criterion.

III. THE TMDL AND WLAS MAY ONLY BE CHALLENGED ON THE GROUNDS THAT THEY ARE TOO LENIENT, NOT THAT THEY ARE TOO STRINGENT

The mills argue that they should be able to present arguments that the TMDL and resulting WLAs contained in their permits are too stringent. They are incorrect. They have no

¹⁹ EPA explained this in the preamble to the regulation:

EPA emphasizes that paragraph (d)(1)(vi) is not used to establish effluent limits on a pollutant if the state has adopted a numeric water quality criterion for that pollutant.

54 FR 23875 June 2, 1989,

right given by law to argue that their permits are too stringent. However, NCAP and CRU do have grounds to challenge the permits as too lenient.

First, the TMDL has now been established by federal action after Oregon formally notified EPA in March 1990 that it was passing that responsibility to EPA. Any challenge must therefore be in a federal forum.

Second, CWA section 303((d)(1)(C) only demands that the TMDL be established at a "level necessary to implement the applicable water quality standards with seasonal variation and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality." There is no language that requires the TMDL level to be no more than that necessary to achieve this. In fact, section 510 of the CWA provides that any state law may be more stringent than that required by the CWA. Thus, DEQ may set a TMDL as stringent as zero, as long as it complied with the proper procedures, and there be no basis for challenge.

IV. GRANTING THE MILLS' MOTION WOULD CONTRAVENE OREGON'S ADMINISTRATIVE PROCEDURE ACT AND BIND THE COMMISSION

The mills state that "nothing in OAR 340-45-035(9) or any other provision of law limits the scope of issues before the Commission . . ." Memo in Support, p.3. This is patently incorrect. In contested cases, "[i]rrelevant, immaterial or unduly repetitious evidence shall be excluded . . ." ²⁰ The

²⁰ ORS 183.450(1)

evidence that the mills' seek to admit relates to issues not properly before the Commission (as demonstrated above), and is therefore irrelevant and must be excluded.

Furthermore, granting the mills' motion will have the effect of binding the Commission to allow issues which can not be considered in a contested case. Even if the Commission later wished to interpret its rules as upholding its original standard, it may be barred from doing so.

Although entitled "Motion for an Order Identifying Issues," the action the mills' motion is a request for a declaratory ruling. A declaratory ruling describes "the applicability to any person, property, or state of facts of any rule or statute enforceable by [the agency]." ORS 183.410. This is exactly the situation here. The mills are asking for a ruling on the applicability to them of Oregon's water quality standard, a rule enforceable by EQC. It is important that this request be identified as such, because once the declaratory ruling is given, it "is binding on both the parties and the agency as to the facts on which it is based."²¹

One of the reasons asserted for the Boise Cascade's Motion is to enable it to begin gathering evidence for next summer's hearing, an endeavor that requires "great expense and effort that must be expended to present evidence and argument on these

²¹ Oregon Attorney General's Administrative Law Manual, p.165. The Attorney General's Uniform Rules govern declaratory rulings and set out the procedures for them. OAR 137-02-020.

issues."²² If the Commission grants the mills' order, it may be estopped from interpreting its regulations differently later in the proceeding.

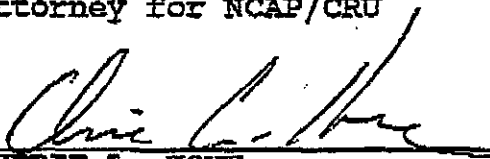
If the mills' order is granted, they will proceed to expend "great expense and effort." If the Commission later decides to exclude certain evidence as improper, the mills may have a claim based on estoppel that the Commission can not then exclude this evidence, since the mills relied to their detriment on a ruling by the commission.

CONCLUSION

For the above reasons, NCAP and CRU respectfully ask this Commission to deny the "motion to identify issues." To grant it will radically alter the very nature of the rule establishing Oregon's water quality standard for TCDD and other pollutants.

Respectfully submitted,


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Attorney for NCAP/CRU


CHERIE L. HOWE
Legal Intern

On the brief:
Matthew Kenna
Patrick Lavin

Dated this 4th day of March, 1991.

²² Boise Cascade's Motion for an Order Identifying Issues, pp. 2-3.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that she is the Office Manager of the Western Natural Resources Law Clinic and is a person of such age and discretion as to be competent to serve papers.

That on March 4, 1991, she served a copy of NCAP and CRU'S Notice of Response to Boise Cascade's Motion For An Order Identifying Issues by placing said copies in a first-class postage paid envelope addressed to the persons listed on the attached list, and by depositing said envelope in the United States mail at Eugene, Oregon.


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REQUEST FOR EQC ACTION

Meeting Date: March 11, 1991
Agenda Item: K
Division: Management Services
Section: Administration

SUBJECT:

Review of the State/EPA Agreement (SEA) for FY92.

PURPOSE:

The annual State/EPA Agreement 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, 1991 through June 30, 1992) and becomes the basis for federal funding assistance to DEQ. The purpose of this report is to provide an opportunity for the EQC to comment on the priorities prior to final agreement with the EPA. It is also an opportunity for the public to comment on the priorities before the Commission.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Potential Strategy, Policy, or Rules
 - Agenda Item for Current Meeting
 - Other: (specify)

 - Authorize Rulemaking Hearing
 - Adopt Rules
 - Proposed Rules
 - Rulemaking Statements
 - Fiscal and Economic Impact Statement
 - Public Notice
- Attachment
Attachment
Attachment
Attachment



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Meeting Date: March 11, 1991
Agenda Item:
Page 2

- 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 A
- Other: (specify) Attachment _____

DESCRIPTION OF REQUESTED ACTION:

This report provides the Environmental Quality Commission (EQC, Commission) with information about the proposed State/EPA Agreement and the FY 1992 priority issues for Oregon.

AUTHORITY/NEED FOR ACTION:

- Required by Statute: _____ Attachment _____
Enactment Date: _____
- Statutory Authority: _____ Attachment _____
- Pursuant to Rule: _____ Attachment _____
- Pursuant to Federal Law/Rule: _____ Attachment _____
- Other: Attachment _____

Opportunity for public input and EQC review is required by EPA as a prerequisite to approval of program funding grants.

Time Constraints: (explain)

The SEA needs to be finalized by July 1, 1991, in order to have program work plans in place at the beginning of the new fiscal year. Timely completion is also necessary to have grant awards for program funding made to the Department as soon as possible.

DEVELOPMENTAL BACKGROUND:

- Advisory Committee Report/Recommendation Attachment _____
- Hearing Officer's Report/Recommendations Attachment _____
- Response to Testimony/Comments Attachment _____
- Prior EQC Agenda Items: (list) Attachment _____
- Other Related Reports/Rules/Statutes: Attachment _____
- Supplemental Background Information Attachment B

Meeting Date: March 11, 1991
Agenda Item:
Page 3

Summary information provided to the public about the State/EPA agreement is provided in Attachment B. The Department will consider any comments received prior to reaching consensus on issues with the EPA. Written comments are requested by March 29, 1991. It is expected that any unresolved issues between EPA and the Department will be decided no later than May, 1991.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The agreement should not change DEQ's relationships with the regulated or affected community.

PROGRAM CONSIDERATIONS:

The State/EPA Agreement is the basis for financial assistance from the EPA. It also provides mutual understanding of shared goals and proposed achievements.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

None.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends the Commission accept the information report.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The State/EPA Agreement is consistent with the strategic plan, agency policy, and legislative policy.

ISSUES FOR COMMISSION TO RESOLVE:

None.

INTENDED FOLLOWUP ACTIONS:

The Department will continue to negotiate with the EPA to reach agreement and sign the final document by July 1, 1991.

Meeting Date: March 11, 1991
Agenda Item:
Page 4

During this time, the Department will conduct a mailing to interested parties and the Regional Councils of Government. 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.

Approved:

Section: _____
Division: Peter Dalke
Director: Bill Hagan

Report Prepared By: Peter Dalke

Phone: 229-6485

Date Prepared: February 19, 1991

PD:y
MY101226
February 19, 1991

FY 1992 PRIORITY ISSUES

FOR OREGON

AIR QUALITY PROGRAM

- A. Update PM10 SIP's to meet new requirements of the Clean Air Act by the November 15, 1991 Act deadline.
- B. Assuming passage of DEQ's emission fee bill, develop rules and increase staffing as needed to meet Clean Air Act permitting and permit fee requirements and if authorized establish area source emission fee program.
- C. Adopt and implement State air toxic program which is compatible with the new Clean Air Act air toxic program.
- D. Meet new Clean Air Act requirements for FY92 for CO and Ozone.
- E. Develop and implement a predictive model to identify nonmonitored areas with potential air quality problems.
- F. Develop a system to track continuous monitoring data, and identify emission problems requiring follow-up action.
- G. Upgrade emission inventory data system, to facilitate reporting and use of emissions data.
- H. Implement and evaluate effectiveness of inspection targeting matrix.
- I. Reduce backlog of industrial permit applications.

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 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.

Revise the SCWS for inclusion in the 1992 Status Assessment Report (305 (b)).

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.
2. Issue water quality based permits where necessary.
3. Continue to address the backlog of unissued 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. Develop specific guidance document for implementation of the groundwater rules and utilize to incorporate groundwater protection requirements into wastewater 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. Develop procedures and criteria for evaluating fill projects through the 401 certification process.
11. Develop loan program guidance and procedures.
12. FY 1991, complete the last fiscal year when new grants will be made from the construction grants program.
13. Implement the loan program with the first two years Federal Capitalization Grants.
14. Prepare FY 1992 Intended Use Plan.

HAZARDOUS WASTE PROGRAM

A. Base Program Priorities

1. Continue to operate a comprehensive, high-quality hazardous waste program.
2. Achieve authorization for all base-RCRA and HSWA provisions through July 1, 1990.

3. Evaluate and implement measures to stabilize long-term federal and state funding for the hazardous waste program.
4. Promote alternatives to land disposal and implement the provisions of the land disposal restrictions.
5. Evaluate, plan, secure resources and develop a state information management system for the hazardous waste program which meets both state needs and federal reporting needs.
6. Continue to conduct a compliance program targeted at generators of hazardous waste and hazardous waste management facilities and pursue enforcement against significant violators.
7. Continue to develop and implement education/technical assistance for hazardous waste generators and toxics users.
8. 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.
9. Continue to focus on environmental clean-up, closure, corrective action and post-closure permits at unauthorized land disposal facilities.
10. Continue hazardous waste permitting work at storage facilities and post-closure of land disposal facilities in order to meet congressionally mandated deadlines.
11. Facilitate and monitor compliance of permitted hazardous waste management facilities using compliance inspections and permit modifications.
12. Development and implementation of a technical assistance program that assists hazardous waste generators and toxic substances users in preparing reduction plans and identifying and selecting technically sound reduction options for successful implementation.
13. Establish uniform reporting requirements and a network of information/data management systems for the purpose of collecting and monitoring data on the reduction of toxics use and hazardous waste.

UNDERGROUND STORAGE TANK (UST) PROGRAM

A. Projected Activities for the 1992 SEA Grant

1. State Program Approval

Track the State program approval application through the approval stages at the Federal level. Respond to questions and comments to the published program. Maintain the authorized program.

2. Certification and Licensing of UST Supervisors and Service Providers and Soil Matrix Cleanup Service Providers and Supervisors.

Prepare and administer examinations and issue service provider licenses and supervisor licenses for installation, tank removal, tightness testing, cathodic protection and soil matrix cleanup.

3. Technical Assistance and Training

Continue to provide technical assistance and training for state UST personnel responsible for compliance and enforcement.

4. 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.

5. 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.

SUPERFUND PROGRAM

A. Program Management and Administration

1. Implement the Superfund Memorandum of Agreement (SMOA) which establishes 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, expand, and maintain 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 with EPA in the SCAP and other 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 pre-remedial program by conducting 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 remedial investigation/feasibility studies at Allied Plating, Joseph Forest Products and Teledyne Wah Chang through management assistance.
2. Continue state lead of RI/FS activities at Union Pacific Railroad site.
3. Participate in the remedy selection process and remedial design at Joseph Forest Products.
4. Participate in design and construction activities at NL/Gould and Teledyne Wah Chang through management assistance.
5. Assist EPA in resolution of operation and maintenance and cost recovery issues at United Chrome Products site and assist in deep aquifer remediation issues.
6. Participate with EPA in RI/FS activities at Umatilla Army Depot under an interagency agreement.
7. Participate in remedial action and operation and maintenance activities at Martin Marietta.

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. Program Approval

Continue to track the state program application through the review and approval process. Respond to public hearing comments and questions from EPA review staff.

C. Site Cleanup Oversight/Management

Major DEQ resources will be expended in 1992 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.

D. Outreach

Owners and operators will be advised of the latest program guidance and requirements through regular seminars, public meetings and presentations.

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 1992 SEA, which will be available in draft form for public review and comment in April 1991, will include detailed discussions of outputs and commitments for both new and ongoing programs.

POLICY

The undersigned agree that the foregoing statements reflect the priority issues and general policies that will govern development of the FY 1992 Oregon SEA. EPA guidance to Oregon, while based on headquarters guidance, will to the fullest extent possible reflect the spirit and intent of this agreement. Likewise, this agreement will serve as a general framework for the negotiations that will occur during Mid-Year Reviews. It is understood that additional discussions and editing of "Environmental issues" may occur prior to the inclusion in the SEA.

Frederic J. Hansen, Director
Oregon Department of
Environmental Quality

Dana Rasmussen, Regional Administrator
Environmental Protection Agency
Region 10

DATE:

DATE:

MY101210 (2/19/91)

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

The State/EPA Agreement

The Department is seeking comments from the public on the proposed content of the State/EPA agreement for federal fiscal year 1992 (July 1, 1991, to June 30, 1992).

The State and EPA negotiate an agreement which is the contractual document that outlines what work the state will perform during Federal Fiscal year 1992 that is supported partially by federal dollars. The agreement also speaks to commitments from the EPA to Oregon in the way of technical assistance and other resources. The State/EPA agreement covers ongoing programs such as industrial inspections and monitoring efforts. It also provides special short-term projects in areas of special environmental concern. The agreement discusses in general most DEQ programs and priorities whether federally funded or not. It discusses as well programs funded by EPA which are carried out by other state agencies such as the Health Division. These general discussions are intended to set the tone for a partnership with EPA in addressing environmental priorities.

The State of Oregon Environmental Quality Commission will discuss the agreement and the priorities at its regularly scheduled meeting on Monday, March 11, 1991. The meeting will be conducted at 811 SW 6th Ave., Portland, Oregon, in Room 3A beginning at 8:30 a.m.

Copies of the full draft State/EPA environmental priority issues for federal fiscal year 1992 are available for review at the DEQ offices listed below. Also available for review are copies of the current year's State/EPA agreement and the Department of Environmental Quality's strategic plan.

The Department will accept written comments until March 29, 1991, at 4:00 p.m.

Headquarters Office/Mgmt. Services Div.

811 SW Sixth Avenue, 6th Floor
Portland, Oregon 97204
229-6484 Toll Free 1-800-452-4011

Roseburg Branch Office

1937 W. Harvard Blvd.
Roseburg, Oregon 97470
440-3338

Astoria Branch Office

Clatsop County Courthouse
749 Commercial, PO Box 869
Astoria, Oregon 97103
325-8660

Southwest Region

201 W. Main Street
Suite 2-D
Medford, Oregon 97501
776-6010

Willamette Valley Region

750 Front Street NE Suite 120
Salem, Oregon 97310
378-8240

Central Region

2146 NE 4th
Bend, Oregon 97701
388-6146

Coos Bay Branch Office

490 N. 2nd
Coos Bay, Oregon 97420
269-2721

Eastern Region Office

700 SE Emigrant
Suite 330
Pendleton, Oregon 97801
276-4063



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

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.

11/1/86

MY101220

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: February 19, 1991

TO: Environmental Quality Commission

FROM: Fred Hansen



SUBJECT: Agenda Item P, March 11, 1991 Work Session

Emergency Response: Discussion of Status and Capability

Under ORS 466.605 to 466.680, the Department is given responsibility for spill response and cleanup of hazardous materials. Among other things, the statute requires:

1. The Commission to adopt an oil and hazardous material emergency response master plan;
2. Persons responsible for a spill or release of oil or hazardous materials to immediately notify the Emergency Management Division;
3. Persons liable for a spill or release to immediately clean up under the direction of the Department;
4. If the liable persons do not immediately or adequately clean up the spill or release, the Department may perform the cleanup or contract for the cleanup;
5. Recovery of the Department's cleanup costs from the liable parties; and
6. Establishment of the Oil and Hazardous Material Emergency Response and Remedial Action Fund to fund the Department's spill response and cleanup responsibilities.

This report will summarize the current status and capability of the Department's oil and hazardous material spill response and cleanup program. An important point to keep in mind throughout the discussion is that the legislature has chosen not to directly fund this activity. The Oil and Hazardous Material Emergency Response and Remedial Action Fund has a current (12/31/90) balance of \$768.

Overview of the Program

I. Materials covered

a. Oil - includes gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil refuse and any other petroleum related product [ORS 466.605(8)]

b. Hazardous materials - includes hazardous substances and hazardous wastes.

Specifically the substances and wastes listed in 40 CFR Part 302 - Table 302.4 effective May 1, 1987.

II. Requirements

a. Spill Response and Cleanup of Hazardous Materials

ORS 466.605 to 466.680 - originally adopted by the legislature in 1985 to provide responsibility, authority and funding for spill response and cleanup activities (summarized above).

OAR 340-108-001 to 340-108-080 - adopted by the EQC in 1986 to implement the provisions of the spill statute, ORS 466.605 to 466.680. It specifies the reporting requirements, cleanup standards and liability for spills of oil and hazardous materials.

b. Oil Spillage Regulation

ORS 468.780 to 468.833

1. Prohibits entry of oil into waters of the state unless expressly authorized by the Department;
2. Provides strict liability for violation;
3. Requires responsible person to collect and remove spilled oil immediately;
4. Authorizes Department to conduct cleanup if responsible party fails to act immediately, and to recover its costs from the responsible party;

5. Provides for civil penalty of up to \$20,000 for any person who intentionally or negligently discharges oil into waters of the state;

6. Establishes Oil Spillage Control Fund to pay Department cleanup costs. All civil penalties for oil spills to state waters are deposited into the Fund. Current (12/31/90) balance in the Fund is \$12,905;

7. Requires financial assurance for ships that transport oil and other hazardous materials in the waters of the state; and

8. Requires the Department to develop an integrated, interagency response plan for oil or hazardous material spills in the Columbia River, the Willamette River to Willamette Falls, and the coastal waters and estuaries of the state.

c. Removal or Remedial Action

ORS 465.200 to 465.420 - this is the state environmental cleanup program. It is designed to discover, assess, investigate and cleanup sites contaminated by hazardous substances in the state. A typical site would be an industrial facility where past practices have resulted in significant contamination, such as the McCormick & Baxter Creosoting Company in Portland.

The program is mentioned here because it includes authority to perform removals at sites where there is an immediate threat to public health or the environment. This is similar to the authority under the spill statutes mentioned above, but was not intended for that purpose.

Further, the Hazardous Substance Remedial Action Fund has a relatively large balance (\$4,655,878 as of 12/31/90) compared to the spill funds, and absent legislative approval of funding for the spill programs has been used to fund these activities during the 1987-89 and 1989-91 bienniums.

III. Emergency Response Planning

a. Oil and Hazardous Material Emergency Response Master Plan - Annex O of the Oregon Emergency Operations Plan.

Adopted by the EQC in January, 1987 pursuant to ORS 466.620. It is a statewide plan for responding to oil and hazardous material emergencies.

The plan was developed in cooperation with local, state and federal agencies and Oregon industry. It describes the typical roles and responsibilities of all responders. It identifies who will be in charge of an incident. It provides guidelines for coordinating local, state, federal, industry and volunteer emergency response resources.

b. Roles and Responsibilities under Annex O

1. Responsible parties - any person responsible for an oil or hazardous material spill must immediately notify the Emergency Management Division as soon as they know of the spill, if it exceeds a reportable quantity. Reportable quantities are set by rule by the EQC.

They may also have to notify the National Response Center if the spill exceeds a federal reportable quantity.

2. Emergency Management Division - maintains a 24-hour notification capability, and notifies the lead state agency (usually DEQ for oil and hazardous material spills).

3. Local government - usually the first responders to an incident (e.g. local fire, police, emergency medical, or public works departments). They undertake emergency response actions such as:

- Notifications
- Initial hazard determinations
- Communications
- Life-saving/rescue
- Emergency medical care
- Fire fighting
- Security
- Evacuation

- Shelter

4. Regional Hazardous Material Emergency Response Teams - the State Fire Marshal is responsible for establishing a system of regional response teams that can respond to serious spills which threaten life, property or the environment. These are to be specially trained and equipped teams operating under contract with the Fire Marshal that can control and stabilize releases of hazardous substances.

There are to be 10 HazMat teams covering the state as shown in Figure 1. These teams will be responsible for the following services:

- provide technical support to the local incident commander during the emergency phase of the incident.
- stabilize the hazardous materials emergency.

5. DEQ Regions - each regional office has designated spill response staff who are available 24-hours a day (on a rotational basis) to receive notification of an emergency and respond as appropriate. These staff perform the following functions:

- provide technical assistance and advice on necessary protective actions.
- evaluate the environmental and public health (in coordination with Health Division) implications of a spill.
- coordinates state support to on-scene personnel.
- identifies cleanup requirements.
- works with responsible party cleanup contractor to ensure cleanup proceeds appropriately.
- determines if DEQ cleanup contractor is required and notifies Environmental Cleanup Division.
- directs field work of DEQ cleanup contractor.

- insures materials are disposed of in appropriate manner.
- investigates cause of spill and pursues enforcement actions.
- assesses environmental damages and determines whether further longer-term cleanup is required.

6. Other state and federal agencies - these agencies are called upon as necessary for technical assistance or cleanup resources. For example, the U.S. coast Guard usually takes the lead on oil spills in navigable waters. EPA region 10 is available to assist on large spills, and in extreme situations (e.g. Exxon Valdez) the federal Regional Response Team based in California will respond.

IV. Workload

a. Number and type of incidents

Figures 2 and 3 show there were a total of 749 oil and hazardous materials spill incidents that DEQ's regional offices responded to in 1989 and 1990. Not surprisingly, the vast majority of these incidents occurred in the Northwest and Willamette Valley regions.

Figure 4 indicates that there were 614 spill incidents of all kinds in 1990, with 122 hazardous substance, 255 oil, 110 sewage and 127 miscellaneous spills.

b. Contractor costs

Figure 5 shows that the Department has had to use a contractor 146 times to clean up oil or hazardous material spills during the period July 15, 1986 to December 31, 1990. The Department only uses its contractors when the parties responsible for a spill are unknown, or unable or unwilling to undertake the response.

Figure 6 demonstrates the cost to the Department of responding to these 146 spills. In total the Department has expended \$708,903 on cleanup contractors. Most of these funds are unrecoverable because the responsible parties are unknown, or the

amount of money at issue is too small to litigate.
The typical cleanup cost is approximately \$3000.

V. Budget and Funding

Since the legislature chose not to fund the Department's spill response activities in the current (1989-91) biennium, there is no base budget for these activities in the 1991-93 Governor's Recommended Budget. However, the Governor's budget does contain two decision packages that include spill response activities:

DP115 - Regional Operations - includes 1.5 FTE for regional office spill activities funded by \$168,654 from the Hazardous Substance Remedial Action Fund.

DP131 - Drug Labs/Spill Response - includes 1.0 FTE for a position in headquarters to coordinate the spill response program. Funding is \$112,436 from petroleum withdrawal fees.

No expenditure limitation or funding is included for DEQ to use contractors to clean up spills.

Approved:

Division: Mike Downs

Report Prepared By: Mike Downs

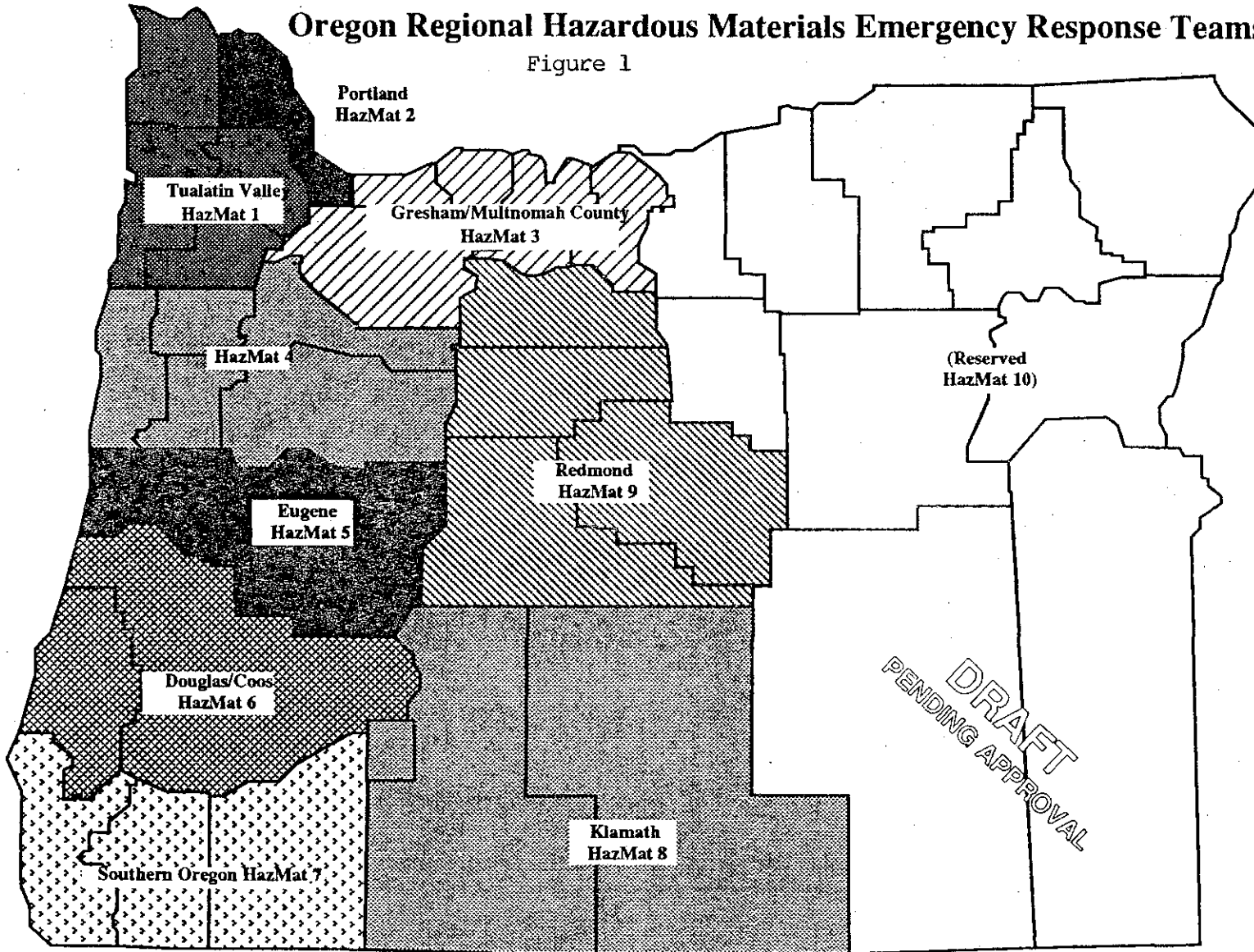
Phone: 229-5254

Date Prepared: 2/19/90

MJD:MJD
SPILLRES.EQC
February 19, 1990

Oregon Regional Hazardous Materials Emergency Response Teams

Figure 1

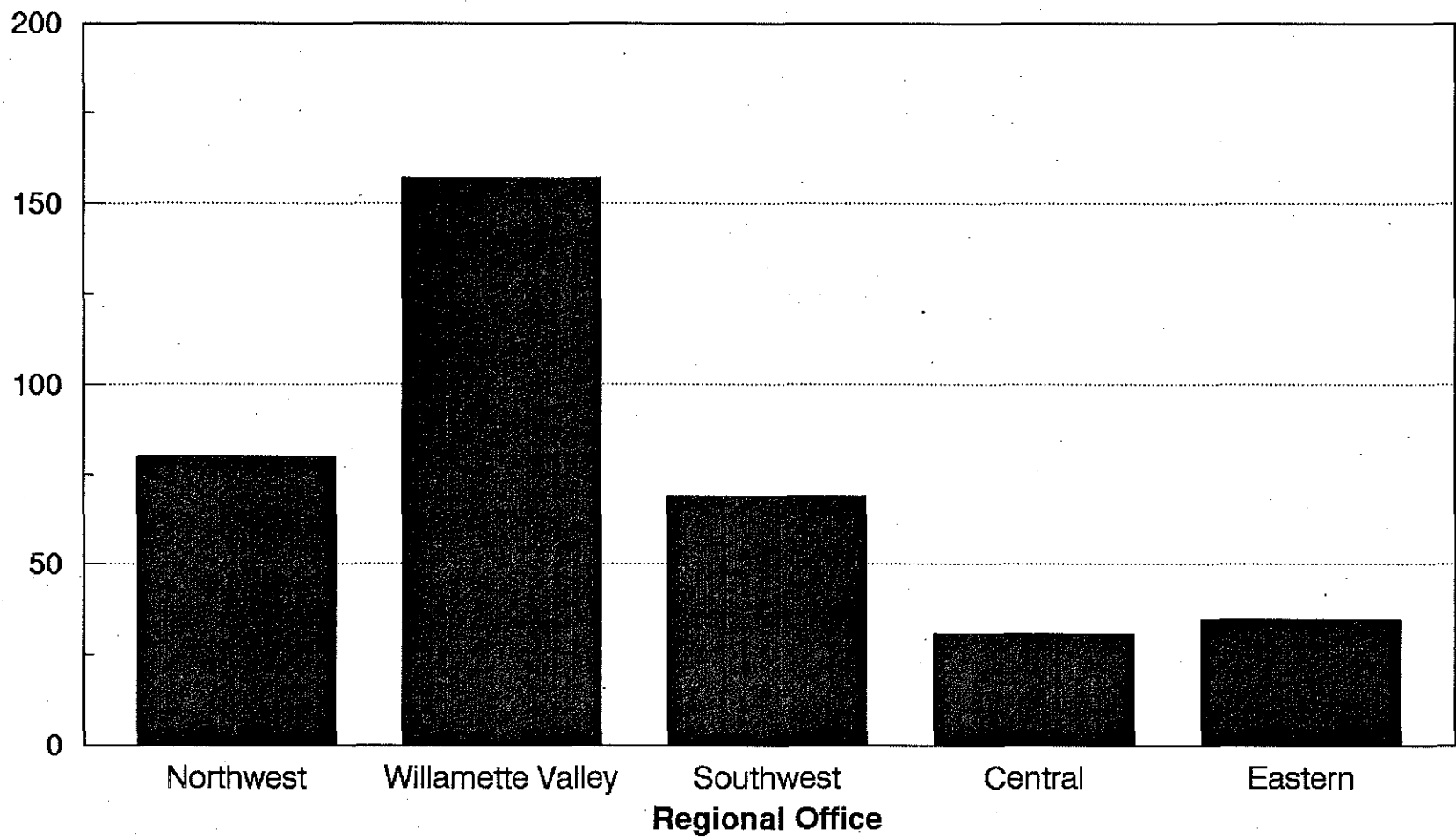


Spill Response Incidents - 1989

Oil and Hazardous Substances by Region

Figure 2

Number of Incidents



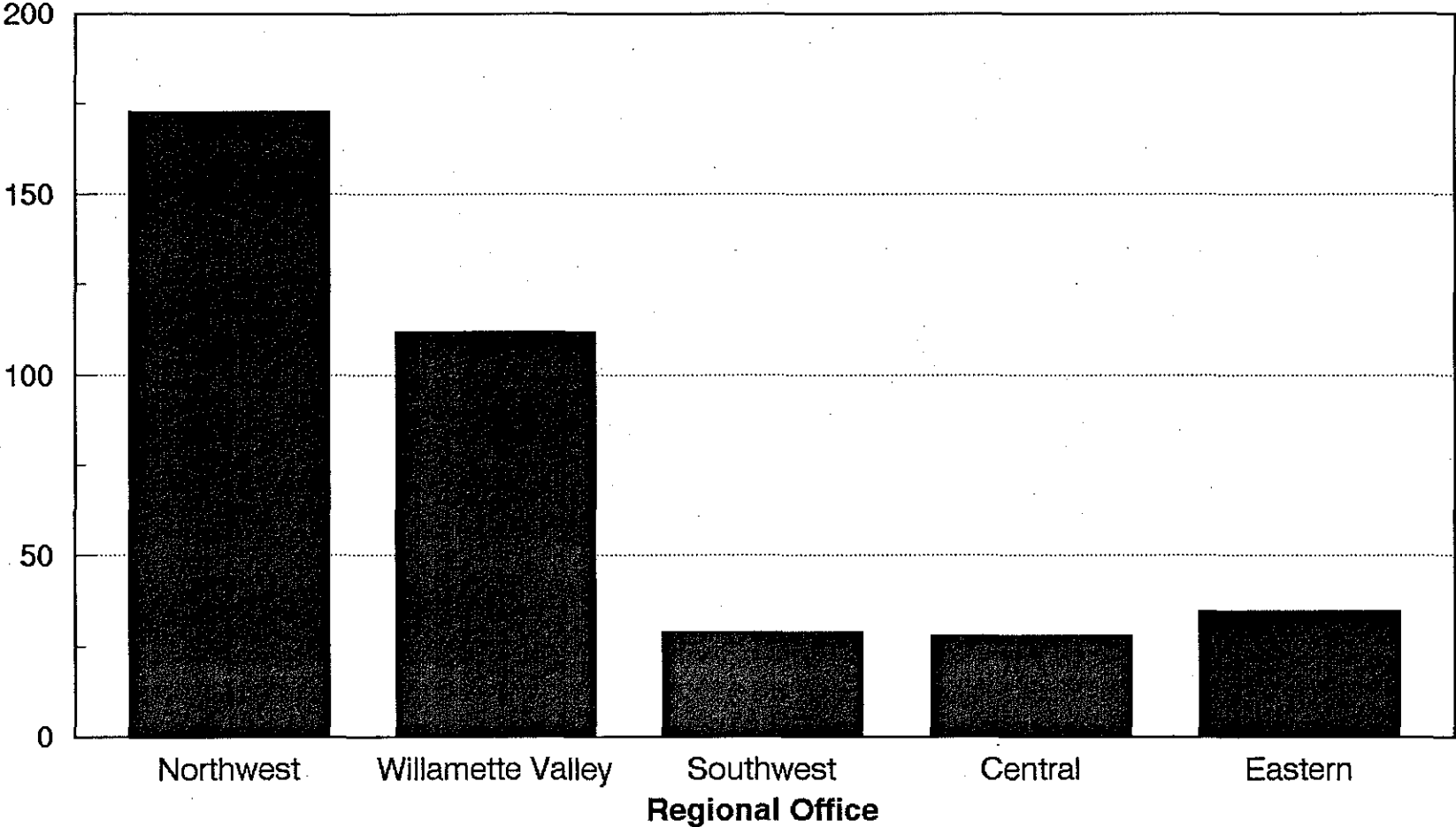
372 total incidents

Spill Response Incidents - 1990

Oil and Hazardous Substances by Region

Figure 3

Number of Incidents

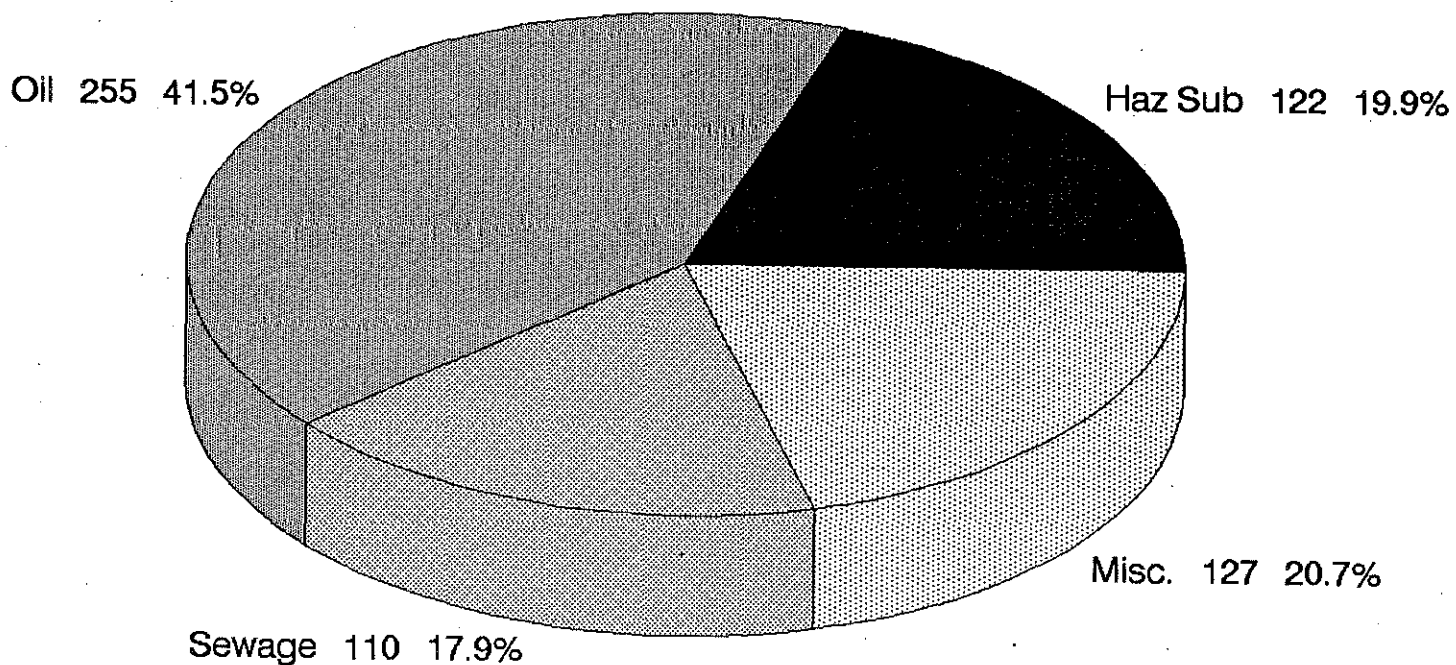


377 total incidents

Spill Response Incidents - 1990

by Type of Material

Figure 4

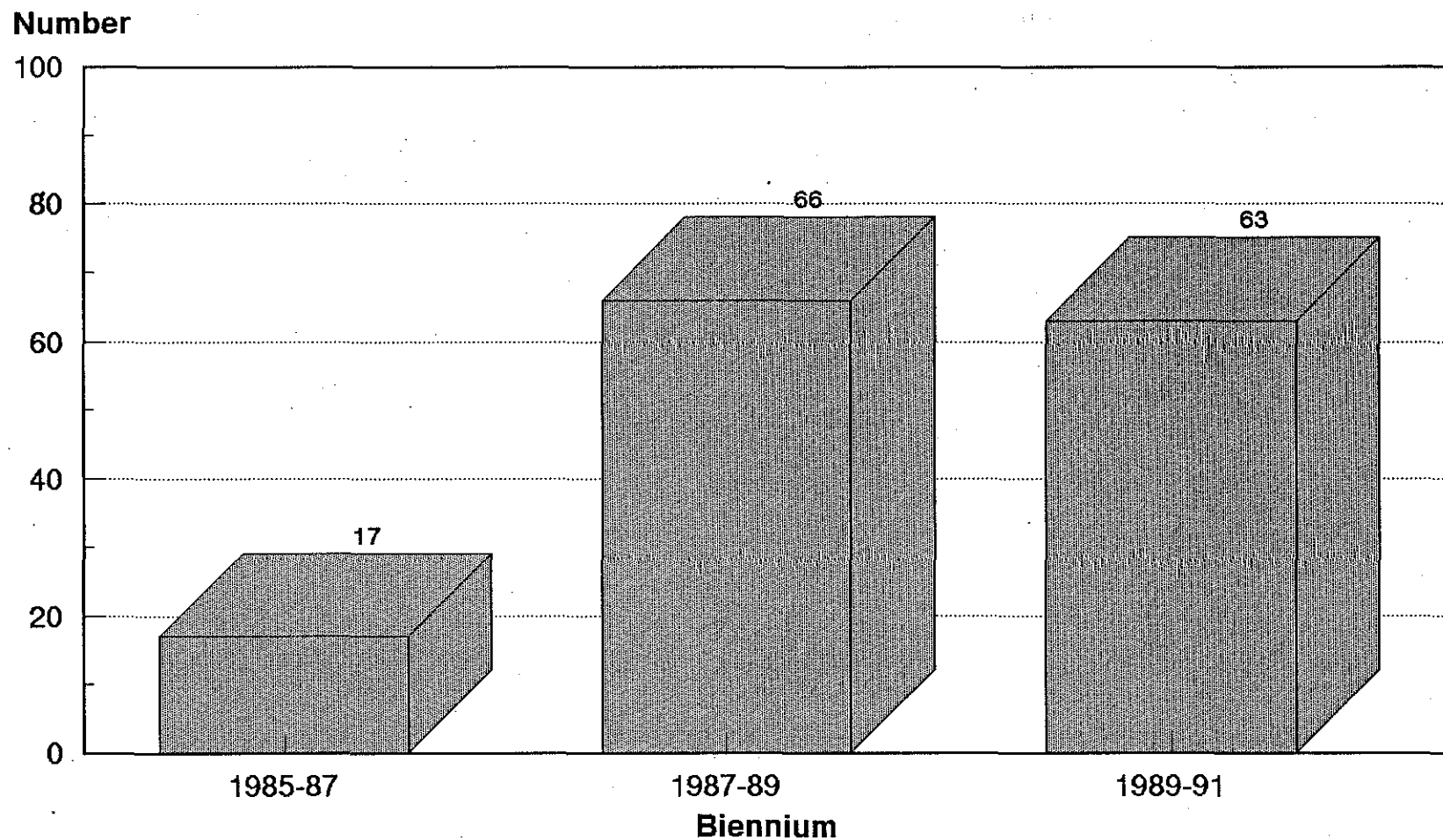


614 total incidents

Frequency of Cleanup Contractor Use

July 15, 1986 to December 31, 1990

Figure 5

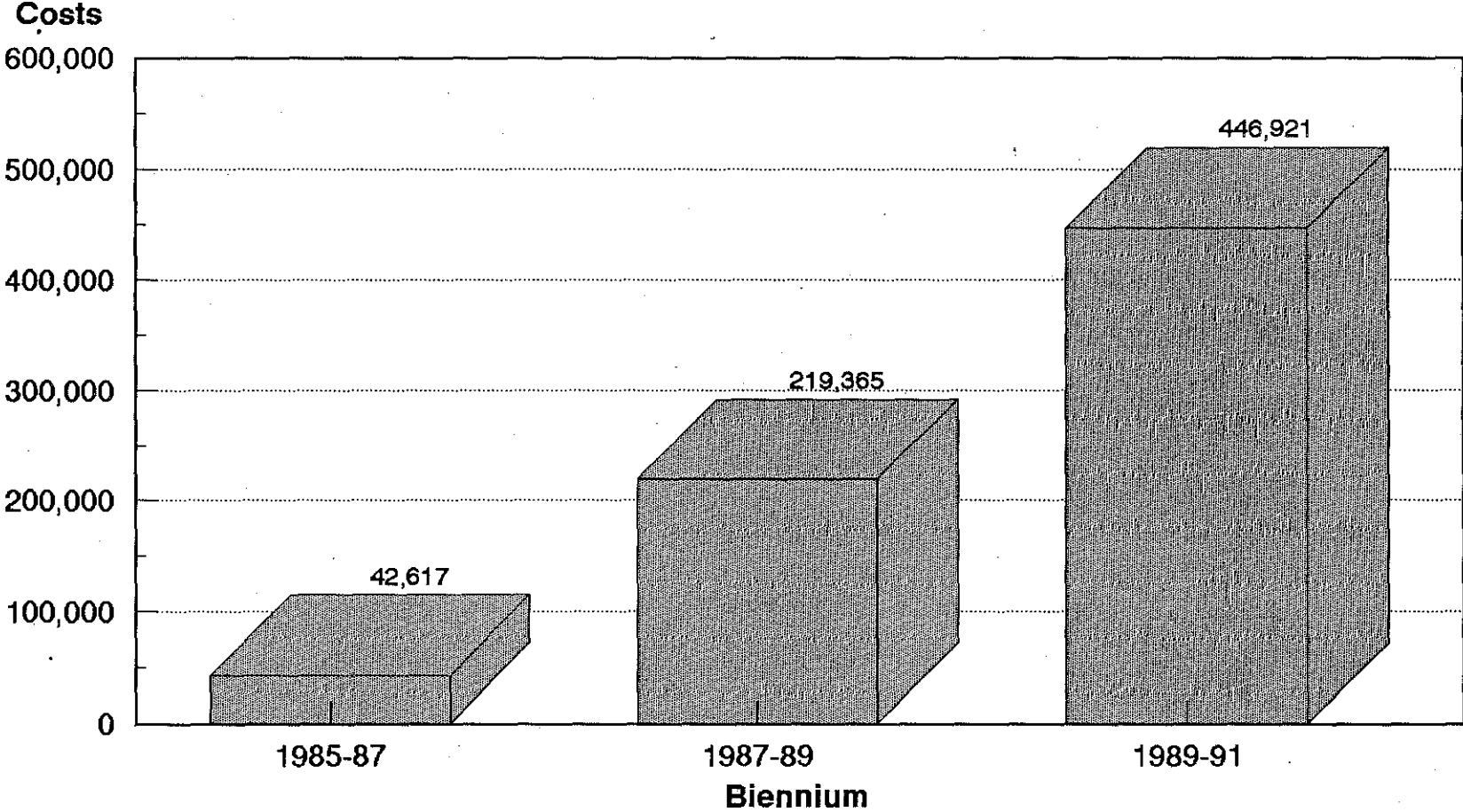


85-87 biennium data for 7/15/86 to 6/31/87
89-91 biennium data for 7/1/89 to 12/31/90

Cleanup Contractor Expenses

July 15, 1986 to December 31, 1990

Figure 6

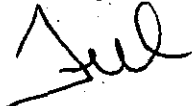


85-87 biennium data for 7/15/86 to 6/31/87
89-91 biennium data for 7/1/89 to 12/31/90
\$708,903 total costs

State of Oregon
Department of Environmental Quality

Memorandum

Date: February 26, 1991

To: Environmental Quality Commission
From: Fred Hansen 
Subject: Agenda Item Q, March 11, 1991 Work Session

Operating Plan and Strategic Plan: Update and Discussion

Operating Plans: Second Quarter Status Report

Attached as Attachment A are the current biennium **Operating Plans** for each Division, as acknowledged by the Commission at the June 1990 meeting, and with the status at the end of the second quarter (end of December) noted in the right hand column. Notes that were previously in this column have been retained but reflected in *italics* to distinguish them from the status description.

In some cases, corrections have been made or the wording of tasks, dates, etc. have been revised. Revisions are noted by striking through deletions and underlining additions.

The Division Administrators will be present at the work session to provide further information as necessary and respond to any questions you may have.

Priority Initiatives: Current Activities

The Commission and Department have identified three priority initiatives for special emphasis: **Cross-Media Pollution Control, Pollution Prevention, Risk Reduction**. These initiatives are embodied within the current Strategic Plan goals. The Department expects the budget and operating plans for the 1991-93 biennium to more specifically address these initiatives. Following is a recap of current activities that specifically relate to these three priority initiatives:

1. The Department has initiated a process through the regions whereby potentially significant environmental problems are forwarded to the Regional Operations Division Administrator. The administrator coordinates with programs where necessary to develop cross-media approaches to resolve problems. Examples where this approach has been used include EPC, Mid-Coast Marine, Therm-Tec.
2. The Department is conducting a review of permitted and non-permitted sources or activities to identify those that may require added attention from a single program, or prioritization for cross-media attention. This effort is being coordinated through the Regional Operations Division.

3. The Department has made application to EPA for a TSCA grant which will provide resources to help develop a strategy for looking at major new sources with a cross-media (multi-media) and risk reduction approach. We have requested \$200,000 (needing a \$66,000 match) for resources to:
 - Review literature and current research and gather data which concentrates on cross-media procedures and risk assessment.
 - Develop guidelines for cross-media methodology to identify, assess, estimate, manage, and communicate risk from emission, discharge, or disposal of toxic pollutants.
 - Recommend policy for using cross-media hazard identification and risk assessment information to prioritize regulatory strategies and compliance inspections, or choose between alternative control actions.
 - Develop guidelines for prioritizing application of cross-media approach to permitted sources, and other complex environmental issues.

A technical advisory committee would be established to assist the Department in this project. The bottom line will be to attempt to write guidelines which will help make the total environmental insult from new sources as low as possible while keeping within absolute program limits.

4. The Toxic Use Reduction program, a major pollution prevention program, is off and running -- rules are in place, the guidance manual to industry for preparing plans has been disseminated, and the first plans are due in September of this year.
5. The Department is funding household hazardous waste collection days in four cities this spring, aimed at preventing pollution at landfills. The project also includes a statewide education program on alternatives to household chemicals.
6. The Comprehensive Air Fee Bill being considered by the 1991 Oregon legislature would apply market forces in the form of emission fees as a disincentive to pollute or to encourage changes in practices to reduce air emissions. This proposal can be viewed as a major pollution prevention initiative.
7. DEQ is seeking funding for a pilot project on product labeling in relation to indoor air quality. DEQ has authority to establish a voluntary product labeling program which would provide an opportunity to utilize market forces to reduce sale and manufacture of products that pollute the indoor air environment. This program could also be used to benefit other environmental media by establishing criteria that includes provisions that the product manufacturing and packaging meet certain environmental standards in order to qualify for the "indoor air seal of approval".

8. The Water Quality and Solid Waste Programs have been working with the Department of Water Resources on regulation of groundwater monitoring wells to assure they are properly installed so that such wells do not become a conduit for pollution of intercepted aquifers.
9. DEQ has been designated by the Governor's Task Force on Paper Use to establish a "model agency" program for paper use and recycling. The Department is working on a variety of paper reduction programs including double-sided copying, increased use of E-mail, increased routing of documents for review rather than distributing individual copies, and improvements to in-house recycling.
10. I have been participating on the Relative Risk Reduction Subcommittee of EPA's Science Advisory Board.
11. The Department (Environmental Cleanup Division) is developing a proposed agency policy on acceptable risk. An issue paper is expected to be ready for Commission work session discussion at the September 1991 meeting.

Strategic Plan: Review of Goals

The Department has reviewed the nine Strategic Plan Goals to determine whether revisions should be made to more clearly incorporate the three priority initiatives. Following is a draft of potential revisions of the Strategic Goals Section of the Strategic Plan. This potential revision is driven by two objectives -- (1) place greater emphasis on the three priority initiatives of **Risk Reduction, Pollution Prevention, and Cross-Media Pollution Control**, and (2) reduce the number of strategic goals (nine seems to be too many). This draft has five goals. The elements of the nine goals of the current Strategic Plan are generally incorporated within the revised goals and discussion. For reference, the Strategic Plan, as adopted by the Commission in June 1990 is attached as Attachment B.

The Department proposes to revisit the Strategic Goals when the Strategic Plan is reviewed following the legislative session. At that time, it may be appropriate to consider some revisions to the goal statements to more directly articulate the priority initiatives that will guide the actions of the agency in the 1991-93 biennium. Discussion of the following potential revisions to the Strategic Goal statements at this time will aid us in preparing for the discussion that will follow the legislative session.

STRATEGIC GOALS (Potential Revision)

Strategic Goals identify the direction the Agency seeks to go or the general results the Agency desires to accomplish over the course of the next few years. The Strategic Goals are not specific

as to how the desired results are to be accomplished. The Goal statements provide a "sense of direction" which guide the development of major projects or activities as well as the numerous decisions made by Department managers each day.

To aid in understanding the intent of the goal, descriptive statements are presented to provide additional detail on agency wide direction.

1. Increase the use of *Risk Reduction* principles and methodologies in the development, analysis, and selection of environmental quality control strategies and programs.

The environment has limited capacity to assimilate pollutants from human activities without interfering with public health, environmental quality, and the quality of life our citizens enjoy. This goal recognizes that future pollution control efforts will generally be costly for small increments of environmental gain (the easy, comparatively inexpensive things have already been done). It is becoming more difficult for the Commission and the Department to identify where to spend limited resources to achieve the greatest environmental gain. Use of risk reduction principles and methodologies by the Commission and the Department offers a new way to evaluate alternative pollution control strategies. Use will require continuing development of methodologies and a greatly expanded data base to support the required analyses. Effective use of risk reduction principles and methodologies will require special efforts to assure that agency actions and standards protect health and the environment. The methodologies will need to be based on uniform acceptable risk factors, appropriately consider cumulative effects of pollutant exposure through various pathways, and provide an adequate margin of safety.

2. Significantly increase the emphasis on *Pollution Prevention* as the preferred method for protecting public health and environmental quality.

Prevention has always been a recognized way of controlling pollution. However, regulatory programs mandated over the past two decades by federal and state legislation for municipal and industrial sources have resulted in a primary emphasis on installation of waste treatment and control facilities. This goal will require a conscious effort by the Commission, Department, and others to deviate from the traditional pollution control approaches.

Expanded education will be a primary way of accomplishing this goal. Pollution control efforts are increasingly targeting the large number of small sources -- particularly the activities of each of us as individuals. Thus, to achieve environmental quality goals, we need to secure assistance from experts in developing strategies for changing attitudes of the public regarding their actions and environmental quality. We also need to develop a broad-based strategy for informing the public of the relationship between their actions

and environmental quality, and integrate implementation of this strategy into all agency actions.

Other pollution prevention options include increased technical assistance for existing regulated sources to encourage alternatives to the waste treatment technologies relied upon to date, increased use of charges for pollutant discharges, and increased use of market incentives including product labeling as a means of fostering awareness of environmental effects of marketplace products. Attaching economic consequences to the degree of environmental insult should become a significant component of pollution prevention efforts (i.e. the polluter pays).

Finally, significant gains in pollution prevention will require improved knowledge of current conditions and future trends in order to take timely advantage of "opportunities". This includes improved monitoring to provide essential data to describe current environmental quality, evaluate identified problems, model environmental effects of proposed actions, and evaluate trends in environmental quality. It will also be desirable to develop the capability to track regional/national/international technical/social/economic events and trends that may have significant relationship to Oregon environmental trends, programs, and opportunities for preventive action. It will be necessary to develop enhanced and new capability to perform environmental trends analysis and evaluate varied sources of information to anticipate problems and develop problem-preventive strategies. Ongoing involvement in the state's land use program is also a key step in protecting the state's environmental quality in the face of growth.

3. Address environmental issues on the basis of a comprehensive cross-media (air, water, land) approach. (Cross-Media Pollution Control)

Federal and state pollution control legislation has developed over time to address specific perceived problems related to air pollution, water pollution, hazardous waste disposal, etc. The timing of requirements in the various pieces of legislation, particularly at the federal level, has not been coordinated. As a result, we are becoming increasingly aware of the potential for control approaches in one environmental problem area (media) actually adding to problems in another.

This goal will require the Commission and Department to revise and update procedures for permit application evaluation, permit issuance, review of engineering plans, and review of technical proposals to assure that requirements in one environmental medium (air, water, land) complement the efforts in other media and do not create new problems. 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.

This goal also recognizes that the environment has limited capacity to assimilate pollutants from human activities without interfering with public health and the quality of life our citizens enjoy. After extensive pollution prevention and control efforts, existing industries, cities, and citizen activities will produce some residual pollution that utilizes portions of this assimilative capacity. This goal seeks to assure a coordinated approach to management of that assimilative capacity to maintain room for planned growth with an appropriate factor of safety.

4. **Minimize the extent and duration of unpermitted pollutant releases to the environment through a technically sound compliance program which is timely, serves as a deterrent, and ensures that an economic advantage is not gained by non-compliance.**

Oregonians have made a substantial investment in the construction and operation of pollution control facilities. Continued attention to the proper maintenance and operation of these facilities is essential to achieve environmental quality requirements. Efforts to shift the focus of attention to pollution prevention as a means of meeting future goals does not diminish the ongoing need to emphasize compliance for existing pollution control facilities.

This goal anticipates review and restructuring of existing compliance assurance activities to assure that environmental quality objectives are achieved. Examples of actions that may be desirable to assist in achieving this goal include: review of existing permits and revision as necessary to assure that permits are achievable and clearly understood by permittees, and that conflicting, unenforceable, or unessential permit conditions are eliminated; expansion of the use of self monitoring and reporting by sources (which is objective and valid) as a means to make more effective use of existing DEQ field staff; improvement of technical training of agency staff to make compliance determinations; and enhancement of the capacity and range of laboratory analytical capability to support field compliance determinations.

5. **Develop a diverse highly qualified staff that employs the highest professional and ethical standards in dealing with the public, regulated community and co-workers, and continually seeks to streamline programs and make efficient use of limited resources.**

If environmental goals are to be achieved, attention must also be paid to the development of a quality work force and a quality work environment. We need to provide adequate time and opportunity for staff to perform quality work, to systematically acknowledge quality work, to promptly address deficient performance, to provide an environment which fosters participation and creativity, to assure a safe work-place through training and effective implementation of safety programs, and to continuously strive to meet

Memo to: Environmental Quality Commission
February 26, 1991
Page 7

affirmative action goals. We also need to develop a clear statement of values to guide agency actions and attitudes. In part, this statement should reflect respect and appreciation for the views of others, and continue to result in decisions that are unbiased, objective, equitable, and based upon sound facts. All staff should be trained to ensure that a consistent approach reflecting department values is followed in dealing with the public, regulated community, and co-workers.

Finally, we must continually recognize that resources are limited and improved efficiency is a standing goal. The Agency must systematically evaluate rules, permits, procedures, policies, and activities to find ways to streamline and find more efficient ways to accomplish the desired results. This goal encourages ongoing identification of programs or activities that can more effectively and efficiently be accomplished by other government agencies and seek to transfer such activities to those agencies. Efforts are also appropriate to identify and eliminate work tasks which contribute little to environmental quality protection so as to free resources for higher priority tasks.

FH:1

Attachments

Department of Environmental Quality

Update 1/31/91

**Air Quality Division Operating Plan
Priority Objectives related to Strategic Plan
Through June 30, 1991**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
A. Develop funding to maintain and expand Air Quality improvement efforts. (All Goals, All Programs High Priority 7, all AQ High Priorities)	Draft legislative concepts for Comprehensive Emissions Fee and Woodsmoke Control Financial Incentive Programs	AQ - Planning	May 1990	<i>Pursue programs in parallel in case one or other fails to make it through process.</i> Completed
	Seek Governor's support of legislative concepts	AQ - Administrator	June 1990	<i>Upon Governor's authorization, proceed with this and subsequent steps.</i> Completed
	Consult with affected parties, potential fee collection agencies and legislative counsel and draft bill. Identify implementation resource needs	AQ - Admin/Planning	Sept 1990	<i>Need to draft program to be compatible with Clean Air Act Reauthorization which will establish industrial emission fees. Funds from programs will form air quality improvement fund to help reduce air pollution from woodstoves, industry, motor vehicles, field and slash burning and force emission sources. It will also help fund needed new DEQ resources to deal effectively with these sources.</i> Completed. Report presented at 10/11/90 EQC meeting. Consultation with affected parties ongoing.
	Submit Bills to legislature	AQ - Administrator	January 1991	HB 2175 submitted to Legislature as authorized by Governor Roberts.

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Develop rule to increase VIP fee income to \$10 (statutory limit) to offset increase program costs	VIP/Planning	January 1991	
	Rule Adoption	EQC/Planning	April 1991	
	Implement Fee Increase	VIP	July 1991	
B. Develop and implement highest priority control strategy programs to achieve and maintain healthful air quality. (Goals 2, 3 & 4, AQ high priority)	Request authorization to hold public hearings on draft PM10 SIP's in Grants Pass, Klamath Falls, and Medford	Planning	June 1990	Completed
	Work with local government in Klamath Falls and secure local mandatory curtailment ordinance and with Grants Pass to secure details of voluntary curtailment program	Planning	October 1990	<i>If Klamath Falls local government refuses to adopt ordinances, DEQ will be forced to rely on EPA and/or the Oregon Legislature to take appropriate action.</i> K-Falls is waiting to evaluate data on this heating season before proceeding further.
	Seek EPA funding to support DEQ ambient monitoring/local government operation of curtailment programs	Planning/Technical Services	December 1990	<i>Depends on funding increases from reauthorized Clean Air Act.</i> Completed
	Adopt PM10 control plans and submit to EPA	EQC/Planning	November 1990	Grants Pass adopted in November, Eugene, Medford, and Klamath Falls adopted in January.
	Develop interim parking facility offset program for Portland CBD with consensus of City and EPA on criteria for inclusion in offset rule	Planning	August 1990	Completed

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Request hearing authorization	Planning/EQC	September 1990	Completed
	Adopt	EQC/Planning	December 1990	Grants Pass adopted Nov. 1990. Medford and Klamath Falls adopted January 1991.
	Draft long term CO/ozone maintenance plan for Portland area, coordinating with local governments/METRO and appropriate business interests (APP, PDC, BOMA)	Planning	July 1991	
	Hearing Authorization	Planning/EQC	January 1992	
	Adopt	EQC/Planning	April 1992	
	Develop revised slash smoke management plan with input from joint DEQ/ODOF Advisory Committee	Planning	November 1990	Committee meeting regularly, still on schedule.
	Hearing Authorization	Planning/EQC	January 1991	Delayed to complete negotiations with Dept. of Forestry to provide better protection of PM ₁₀ Non-Attainment areas from slash smoke.
	Adoption	EQC	May 1991	
C. Enhance Air Quality Regulations. (Goals 1, 2, 3 & 4; AQ high priority 2 & 3)	Draft air toxic control regulation for new and existing sources with aid of advisory committee	Planning	December 1990	<i>Integrate new Clean Air Act requirements into program, assuming Act reauthorization in October.</i> A few months of delay expected because of CAA delay and staff vacancy.
	Hearing Authorization	Planning/EQC	February 1991	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Adoption	EQC	June 1991	
	Adopt underground piping requirement for Stage II Vapor Recovery	EQC	September 1991	EQC agreed to skip this step and proceed to full Stage II with hearing authorization accelerated to December 1990.
	Hearing authorization for full Stage II implementation	Planning	January 1991	<i>Should not proceed until Clean Air Act is reauthorized to insure not losing emission reduction credits for growth. Schedule assumes reauthorization by at least October 1990.</i> Hearing Scheduled for February 1991.
	Adopt and implement	EQC/Program Operations	May 1991	<i>Funding for implementation could be permit fees, new federal funds or funding from comprehensive emission fee program.</i> Still working on this.
D. Enhance AQ control	Inhance implementation of Highest and Best Practicable Treatment and Control rule by reviewing other rules for obsolescence and initiating development of highest and best practicable guidance by source type	Program Operations	December 1990	<i>Coordination with Regional Operations and Planning Section required. Rule development will follow based on outcome of this step.</i> On-going. Effort complicated by workload backlog, staff vacancies, and Sierra Club Lawsuit.
	Hearing authorization on inclusion of continuous emission monitoring manual in SIP	Planning/Technical Services	October 1991	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
E. Implement environmental friendly product labelling program for products that offer low potential for polluting the indoor environment and which are manufactured and packaged using environmentally safe practices. (Goals 1, 2, & 5)	Adopt	EQC/Planning	January 1992	
	Develop conceptional program with input of Indoor Air Quality Task Force and EQC	Planning	September 1990	IAQ Task Force scheduled to address this in 1st quarter of 1991. [Previously delayed until clear if EPA budget will contain funds for pollution prevention grants (EPA grant cuts possible under new federal budget cuts).]
	Submit grant application to EPA	Planning	October 1990	EPA funds and grant application procedures scheduled to be released in 1st quarter of 1991. [Delayed until clear if EPA budget will contain funds for pollution prevention grants (EPA grant cuts possible under new federal budget cuts).]
	Finalize design of program	Planning	January 1991	<i>Proceed if grant for program design receive from EPA.</i> Delayed -- see above.
	Support legislative authorization for increased resources	AQ - Administrator	April 1991	<i>Request authorization for 1 permanent FTE with general/federal or fee financing.</i>
F. Develop and implement systematic approach to assess air quality statewide. (AQ priority 2)	Implement	Planning	July 1991	
	Seek EPA funding for special project	Technical Services	July 1990	Completed

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Develop approach to area assessment. Include affected parties in approach design.	Technical Services, Planning, Lab, LRAPA, EPA	April 1991	
	Do initial AQ assessment	Technical Services	July 1991	
	Review results of initial assessment	TS, P&D, Lab, LRAPA, EPA, EQC	Beyond July 1991	
	Propose ambient monitoring network modifications	TS, P&D, Lab	Beyond July 1991	
	Seek funding for additional monitoring	AQ Administration	Beyond July 1991	
	Maintain/refine assessment	Technical Services	Ongoing	

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Water Quality Division Operating Plan
Priority Objectives related to Strategic Plan
Through June 30, 1991.

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
A. Development and maintenance of a Statewide Nonpoint Source Assessment and Management Plan.	Develop Strategies to achieve implementation of land management practices to control nonpoint source water pollution that results primarily from forestry, agriculture, and urban land use activities.	Nonpoint Source Program staff, Surface Water Section Manager, <u>Groundwater Section Manager</u> , WQ Division Administrator	On-going	<p>MOA/AP</p> <ul style="list-style-type: none"> • DOA 8/1/89 • SCS 7/28/89 • ASCS 8/1/89 • USFS 7/9/90 • BLM 4/9/90 • DLCD <p>Groundwater Monitoring ongoing in Malheur, Umatilla and Morrow Counties; Groundwater Management Area Action Plan for Malheur County out to hearing; Lower Umatilla Basin Committee selected.</p>
	Support designated management agencies with the development and implementation of watershed management plans in conjunction with critical basin TMDL activities and Federal land management.	Nonpoint Source Program staff, Basin Coordinators, Surface Water Manager, Division Administrator	On-going	<p>Plan Approval</p> <ul style="list-style-type: none"> • Urban 8/10/90 • USA 8/10/90 <p>Container Nursery Plan Drafted, Technical Specialist Panel Progress Report</p>
	Manage Section 319 federal grant funds to assist state and local efforts in controlling nonpoint sources of pollution through watershed enhancement and protection projects.	Nonpoint Source Program Staff, Surface Water Section Manager	On-going	<p>Administering \$537,018 in 1990 grant funds covering 18 projects, coordinating surface and groundwater grant applications for 1991.</p>

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
B. Develop and implement an Oil Spill Contingency Plan for the Oregon Coast and estuaries, the Columbia River, and the Willamette River to Oregon City.	Develop strategies for the prevention and cleanup of spills in coastal and ocean waters and rivers with major transportation activities. Develop strategies for the commitment of sufficient resources to maintain oil spill cleanup equipment and provide for training.	Oil Spill Prevention Program staff, Surface Water Section Manager, WQ Division Administrator	July 1991	<ul style="list-style-type: none"> • Project scheduled, staff hired, work assigned. • Sensitive resource mapping underway. • Debris disposal strategy drafted and reviewed.
	Coordinate with all affected local, state, and federal agencies, industry and the general public in the development and implementation of the plan.	Oil Spill Prevention Program staff, Surface Water Section Manager, Division Administrator	On-going	<ul style="list-style-type: none"> • 2 Advisory Committee Meetings held for Oil Spill Planning (SB 1039). • 1 Advisory Committee Meeting held for Financial Assurance (SB 1038). • On-going coordination with adjacent states and through State/BC Task Force.
C. Improve the effectiveness and enforceability of Water Quality Permits.	Review standard permit conditions. Remove unessential conditions and add those which would improve readability and enforceability of the permits.	Industrial Permit Program Manager, HQ Staff, Regional Staff	June 1991	<p>Currently reviewing General Conditions (boilerplate) attached to each permit.</p> <p>Meeting with AOSA regularly.</p>
	Evaluate each major permit as renewed for readability, enforceability, and appropriateness of conditions.	Industrial Permit Program Manager, HQ Staff	On-going	<ul style="list-style-type: none"> • Increased biomonitoring requirements being added during renewal. • General and Source Specific Permits are being revised to include groundwater quality protections.
	Train all permit writers on writing effective permits and evaluation reports.	Industrial Permit Program Manager, HQ Staff	Annually	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
D. Expand groundwater quality protection efforts.	Utilize groundwater management area/area of concern program to develop groundwater protection strategies in cooperation with other state agencies.	Nonpoint Source Program Staff, Groundwater Section Manager, Other Agencies	On-going	Malheur County and Umatilla ground water management area work has involved other agencies including ODA, OSHD, WRD, SCS, OSU, USGS, etc. and has spawned ideas for groundwater protection strategies for public education, pesticide collection/recycling, enhanced monitoring, and point source controls.
	<u>Train regional staff in use of Develop guidance document for implementation of groundwater rules.</u>	Point Source Program Staff, Groundwater Section Manager, WQ Division Administrator	<u>March 1991</u> {September 1990}	Internal guidance document finalized and distributed 8/90. Training sessions scheduled: ER.....2/12/91 NWR.....2/15/91 WVR.....2/25/91 SWR....3/5/91 CR.....3/7/91
	Review Materials of prioritized permitted and unpermitted point sources to assess adequacy of groundwater protection.	Point Source Program Staff, Groundwater Section Manager, Regional Staff, WQ Staff	On-going	8/90 guidance document includes priorities for implementation based on categorization of sources, risk, and permit status.
E. Establish updated management programs for the Columbia Basin with Washington and the Willamette Basin.	Initiate the Columbia River Study	Near Coastal Program Staff, Surface Water Section Manager, Division Administrator	October 1990	<ul style="list-style-type: none"> • Interstate Agreement 4/90 • Steering Committee Formed • Numerous public hearings held • 4 year program plan drafted 10/90
	Complete the Analysis of existing data	Standards and Assessment Sect.	March 1991	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Initiate Data Collection	Standards and Assessment Sect.	April 1991	
	Establish the Willamette Basin Study Plan	Standards and Assessment Sect.	January 1991	Draft nearing completion.

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**Hazardous and Solid Waste Division Operating Plan
Priority Objectives related to Strategic Plan
Through June 30, 1991**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
A. Develop hazardous waste program priorities for permitting and compliance activities and implement through the state/EPA agreement. (Goals 2, 4, 6, 7)	Prepare revised draft of hazardous waste permitting and compliance milestone priorities which include target outputs by calendar quarters.	Hazardous Waste Permits and Compliance Section (HWPC)	May 1990	Completed
	Finalize program priorities following comments from EPA.	HWPC	July 1990	Completed
	Track targeted milestones and prepare mid-year review report for permitting and compliance.	HWPC	January 1991	Completed
	Prepare revised milestone if required for permitting and compliance.	HWPC	As needed	
	Prepare end of year review report on milestones targeted and completed for permitting and compliance.	HWPC	June 1991	
B. Develop Comprehensive Hazardous Waste Information System* (Goals 1, 2 & 8) (HSW High Priority 4)	Hire staff replacements	Hazardous Waste Reduction and Technical Assistance Section (HWRTA), Human Resources - MSD	January 1991	* All target dates are contingent upon the timely hiring of qualified staff. Staff hired December 10, 1990.

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Draft new reporting forms	HWRTA	<u>April</u> March 15, 1991	Ross & Associates hired as a consultant. Work now targeted for Completion April 15, 1991.
	Finalize new reporting forms	HWRTA	<u>June</u> April 15, 1991	
	Prototype new forms with regulated community	HWRTA, HWPC	<u>July</u> May 15, 1991	
	Finalize forms and secure new reporting rule	HWRTA	June 15, 1991	
	Develop/modify information system to run all necessary reports	HWRTA, Information Systems	December 1, 1991	
	Modify system to include significant elements of EPA's biennial report	HWRTA, Information Systems	January 1, 1991	Awaiting date entry and issue resolution by EPA.
	Incorporate/integrate elements of HW reduction and toxic reduction into system	HWTRA, Information Systems	January 1, 1991	This element is subsumed in the forms development project.
	Incorporate new federal reporting requirements into information system (HWDMS,RCRIS and capacity assurance)	HWRTA, HWPC	Ongoing	
	Develop new reports and data categories to meet public, government and information needs	HWRTA	Ongoing	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
C. Reorganize solid waste permit review work to improve efficiency and reduce the backlog of submittals. (Goals 1 & 8) (Agency-Wide High Priority #3)	Regional training on policies, permit instructions.	Headquarters Staff	May 13, 1990	Completed
	Finalize woodwaste policy	Headquarters	June 15, 1990 <u>March 1, 1991</u>	On track for new date.
	Hire temporary staff to address industrial sites.	Headquarters	July 1, 1990	Completed
	Begin rulemaking on increased permit fees contingent upon legislative approval.	Solid Waste Staff	October 1, 1990	Completed
	Hire permanent staff to track permits/plans	Headquarters	October 1, 1990	Recruitment pending
	complete review and permit/plan approval on all "low-risk" landfills or transfer stations.	Regional Staff	November 1, 1990	On Track
	Review and evaluate new permit processing procedures with regional offices.	Headquarters/Regional Staff	February 1, 1991 <u>April 1, 1991</u>	
	Get approval from Legislature for additional technical staffing for solid waste.	HSW/MSD Staff	July 1, 1991	
Hire new solid waste staff paid for with new higher permit fees adopted by rule.	Headquarters	August 1, 1991 <u>February 1, 1992</u>		

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
D. Adopt recycling goals and standards (Goal 2) (H&SW High Priority 2)	Develop draft rules for goals and standards	Solid Waste Reduction and Recycling Section (SWRR)	May 1, 1990	<i>Important for consensus</i> Concept developed, rules to follow after legislative session.
	Develop legislative concept	SWRR, HSW Planning Section	June 1, 1990	Completed
	Develop fiscal impact statement	HSW Planning Section, MSD Budget Section	June 1, 1990	Completed
	Identify potential funding source	HSW Planning Section, Agency Mgmt., DEQ Legislative Team	August 1, 1990	<i>New Fees or Increase existing fees</i>
	Obtain support for concept	HSW Management	August 1, 1990	4 bills will be introduced with same concept
	Executive approval	Director	July 1, 1990	Completed
	Draft Legislation	Legislative Counsel, DEQ Legislative Team	January 1, 1991	Completed 10/1
	Develop support documents	SWRR, HSW Planning Section, DEQ Legislative Team	January 1, 1991	Completed
	Support legislative passage	DEQ Legislative Team	June 1, 1991	<i>Important for Advisory Committee to support</i>
	Develop Implementation Strategy	SWRR, HSW Planning Section, Agency Mgmt.	September 1, 1991	
Develop Rules	SWRR, EQC	January 1, 1992	<i>Draft Rules will expedite development of final rules</i>	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
E. Implement UST financial assistance programs (Goal 4) (HSW High Priority 8)	Timely review of Grant reimbursement applications (strive for initial 14 day review)	UST Compliance	On-going	<i>Program Sunsets 8/31/92</i> 92 applications received; 49 awaiting additional information; 33 approved; 10 ineligible; \$84,758 awarded.
	Timely review of loan Guarantee applications (strive for initial 14 day review)	UST Compliance	On-going	<i>Program Sunsets 8/31/92</i> 28 applications received; 12 awaiting additional information; 16 certificates issued; 7 guarantee approved; \$255,951 guaranteed.
	Timely review of Interest Rate Subsidy applications (strive for initial 14 day review)	UST Compliance	On-going	<i>Program Sunsets 8/31/92</i> 37 applications received; 17 awaiting additional information; 20 certificates issued; 8 subsidies approved; \$88,942 interest subsidized.
	Timely review of Pollution Control Facility Tax credits (within 120 days of receipt)	UST Compliance	On-going	<i>Program Sunsets 12/31/95</i> 169 approved; \$2,003,475 credits approved.
	Interim Legislative committee program review	UST Compliance, Director	Periodic	<i>Between 89 and 91 sessions</i> Status Reports given -- July 23, 1990 and September 12, 1990.
	Legislative program review	UST Compliance, Director	January-June 1991	No Activity

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Regional Inspection of Loan Guarantee soil cleanups and issuance of "Notice of Soil Cleanup"	Regional Offices	On-going	1 issued
	Regional Inspection of Loan Guarantee upgrade and replacement UST projects and issuance of "Notice of Construction Completion"	Regional Offices	On-going	1 issued

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**Environmental Cleanup Division Operating Plan
Priority Objectives related to Strategic Plan
Through June 30, 1991**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
A. Enhance the cleanup process to include a non-complex cleanup program. (Goal 8) (ECD High Priority 1)	Develop Voluntary Cleanup Initiative (VCI) Plan	Program Development Section	July 1, 1990	Completed 6/7/90
	Prepare legislative budget proposal for Voluntary Cleanup Section	Program Development Section	July 7, 1990	Completed 7/7/90
	Request E-Board authorization for positions	Program Development Section	July 12, 1990	E-Board Approved 7/13/90
	Develop decision regarding cleanup criteria for soil contamination at Level 1 sites	Program Development Section	August 1, 1990	Done. Will propose soil cleanup standards as rules.
	Develop decision regarding procedures and policies for interim Level 1 sites, including: Request packet Letter agreement Model workplan Final report outline Certification letter	Program Development Section	September 1, 1990	Request Packet and letter agreement done on schedule. Others under development.
	Request public hearing authorization for rulemaking if cleanup criteria are developed	Program Development Section	July 1, 1991	Rescheduled for September 1991 meeting.
	Propose rules for incidental hazardous substances and minor groundwater Level 2 LUST sites Request public hearing authorization for rulemaking on Level 2 hazardous substances sites	Underground Storage Tank Cleanup Section Voluntary Cleanup Section	July 1, 1991 January 1992	Rescheduled for December 1991 meeting. On Schedule

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Hire and train staff for Level 2 & 3 voluntary cleanups	Voluntary Cleanup Section	August 1990 - July 1991	Manager and 3 other positions filled. Recruitment underway for 4 remaining positions approved at July 13, 1990 E-Board.
B. Aggressively pursue responsible parties to pay for cleanup costs and maximize cost recovery of DEQ oversight costs. (Goal 4) (ECD High Priority 2)	(See also Priority #1: Voluntary Cleanup Initiative)			
	Develop overhead cost proposal for MSD review and approval	Program Development Section	July 1, 1990	Done. Contractor will be hired to develop overhead cost rate. RFP's due 2/19/91.
	Request E-Board authorization for Accountant position	Program Development Section	July 12, 1990	E-Board approved 7/13/90. Position filled 1/21/91.
	Provide progress report on cost recovery and enforcement policy and procedures	Program Development Section	March 1, 1991	Rescheduled for 3/1/92.
C. Complete site discovery rulemaking and implement on an agency-wide basis.	Propose site discovery rules for EQC adoption	Site Assessment Section	June 29, 1990	EQC Adopted 6/29/90.
	Prepare legislative budget proposal for regional positions	Program Development Section	July 7, 1990	Completed 7/7/90.
	Begin process for listing sites on Confirmed Release List and Inventory	Site Assessment Section	August 1, 1990	Process underway. 48 sites proposed for CRL and Inventory by end of September 1990.
	Complete development of initial guidance to implement site discovery program department-wide	Site Assessment Section	August 15, 1990	Projected to be completed by 6/1/91.

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Begin training to implement site discovery program department-wide	Site Assessment Section	September 1, 1990	Training for regional staff initiated.
	Complete listing of sites on initial CRL & Inventory	Site Assessment Section	November 1990	New target date 3/1/91.
	Complete development of Hazard Ranking System and request public hearing authorization on rules	Site Assessment Section	November 2, 1990	Hearing Authorized 11/2/90.
	Propose Rules for EQC adoption	Site Assessment Section	January 25, 1991	Scheduled for March 1991 meeting.
	Begin ranking sites on inventory	Site Assessment Section	February 15, 1991	Rescheduled for 5/1/91.
D. Secure orphan site funding by receiving E-Board approval to sell Pollution Control Bonds to clean up a site. (Goals 1, 2) (ECD High Priority 4)	<u>McCormick and Baxter Goalposts:</u> <ul style="list-style-type: none"> • Final Phase 1 RI/FS Workplan • Start Phase 1 work • If feasible, implement interim remedial action: <ul style="list-style-type: none"> Final Phase 2 RI/FS Workplan Start Phase 2 work Complete Phase 1 RI/FS work Final Phase 1 & 2 RI/FS Report Select Proposed Remedy Public Comment Record of Decision 	Site Response Section	September 5, 1990	Received final plan 9/7/90.
		Site Response Section	September 10, 1990	Began work 8/1/90.
		Site Response Section	May 9, 1993	On Schedule.
E. Implement Business Planning Project. (Goals 1 & 8) (All Programs High Priority 2)	Complete Feasibility Study; Executive Dept approval	MSD Information Systems	July 1, 1990	Decision made to proceed.

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Award contract	MSD Information Systems	<u>April 10, 1991</u> {August 15, 1990}	New target dates established for tasks based upon decision to proceed.
	Identify components for short term implementation	Program Development	September 1, 1990	Completed.
	Begin analysis of Business Requirements including Data Model	Program Development	<u>May 1, 1991</u> {October 1, 1990}	
	Complete analysis of Business Requirements including Data Model	MSD Information Systems, Program Development	<u>September 1, 1991</u> {January 1, 1991}	
	Issue Contract or task order for one or more components of the Plan	MSD Information Systems, Program Development	<u>September 1, 1991</u> {March 1, 1991}	

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**Laboratory Division Operating Plan
Priority Objectives related to Strategic Plan
Through June 30, 1991**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
A. Increase the amount of waters assessed (based on data) to better identify threats to public health and the environment (Goal 2, Water Program Priority 1)	Develop budget proposals to enhance monitoring capabilities	Lab, WQ Program	Start March 1990, Complete July 1991	On Track with reduced expectations.
	<u>RIVERS:</u> Refine Rapid Biomonitoring Protocols (RPB) for assessing stream quality and non point source (NPS) impacts in rangeland (GWEB Projects) and urban (TMDL) areas	Lab	Start June 1990; Complete September 1991	On Track
	Transfer Protocols to targeted agencies to increase assessment capability	Lab	Initiate in 1991	On Track. Currently working with USGS and BLM.
	Utilize Protocols in DEQ ambient monitoring on prioritized streams (SCWS)	Lab	Start June 1990	<i>Budget dependent</i> Somewhat delayed pending additional protocol refinement, budget
	<u>ESTUARIES:</u> Refine coverage of major shellfish growing bays to meet FDA requirements	Lab, WQ Program, Health Division	September 1990	Complete, although reductions are probable.
	Develop approach for monitoring other bays	Lab, WQ Program, Health Division	January 1991	On hold due to budget.
	<u>LAKES:</u> Seek source of long term funding and support	WQ Program	June 1991	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	<u>WETLANDS:</u>			
	Develop assessment and monitoring capability	WQ Program, Lab	January 1991	Delayed -- looking for funding.
	Develop implementation approach	WQ Program	July 1991	
	<u>GROUNDWATER:</u>			
	Develop ambient monitoring strategy and priorities	WQ Program, Lab	August 1991	On Track
	Initiate Strategy:	Lab		
	Grants Pass Area		July '88-June 1991	On Track
	Boardman Area		Start July 1990	On Track
	Bend Area		Start September 1990	Completed
	<u>Malheur County</u>		<u>On-going</u>	On-going
	<u>Curry County</u>		<u>Start February 1991</u>	On Track
B. Develop information on AQ in areas of the State which have not previously been evaluated, assayed, or monitored	Develop a priority ranking of areas by use of available monitoring information by pollutant and/or by use of source modeling work	AQ Program, Lab	Begin October 1990; Complete by (Part.) May 1991 (CO) Oct. 1991 (SO ₂) July 1992	Grant Applied for and Approved
	Identify areas for survey and monitoring effort, costs and scheduling	AQ Program, Lab		This season's areas are Corvallis, LaGrande, Lakeview, and Pendleton for PM ₁₀ .
	Implement survey and monitoring schedules for PM ₁₀ , CO, SO ₂ , Ozone	Lab,	Start by October 1991	Special Project, Budget dependent. Corvallis completed, others underway.
	Develop a survey technique to identify areas of the State that have potential for impact from toxics	AQ Program, Lab	July 1991	Possible Delay -- lower priority than criteria pollutant survey.

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Implement toxics monitoring network	AQ Program, Lab	(Not likely in 1990-1991)	Small project proposed by Lab for spring of 1991.
C. Improve NPDES/WPCF self-monitoring laboratory assessment & data Quality Assurance (Goal 2,4,8) (All program high priority 1,2).	List EPA QA requirements and applicable GLPs for NPDES & WPCF self-monitoring analyses.	Lab, WQ	September 1, 1990	Delayed due to Lab Certification legislation and agency safety work.
	Develop list of permittees doing self-monitoring; laboratory doing work; analytes; contacts; etc.	Lab, WQ, RO	September 1, 1990	<i>Meet with each Region.</i> Delayed; see above
	Develop inspection check-list, report format, inspection criteria...	Lab	October 15, 1990	Delayed; see above
	Prioritize sources-laboratories for inspection; begin scheduling	Lab, RO, WQ	December 1, 1990	Delayed; see above
	Implement inspection schedule	Lab	January 1, 1991	<i>7 - 10 labs inspected/month;</i> <i>50 labs inspected by June 30, 1991.</i> Delayed; see above

**Regional Operations Division Operating Plan
Priority Objectives related to Strategic Plan
Through June 30, 1991**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
A. Develop and implement an inspection ranking matrix which will focus on highest priority sources and incorporate unannounced inspections into scheduled workload. (Goal 4) (All Program High Priority 1)	Complete ranking of source inspections (AQ, WQ, SW, HW) based upon the matrix and current resource levels (short-term strategy)	RO Administrator, Regional Managers, Program Managers	August 15, 1990	Completed.
	Develop long-term application of inspection matrix. Identify desired inspection level and necessary resources.	RO Administrator, Regional Managers, Program Managers	August 15, 1990	Completed.
	Review inspection schedule with EPA.	Program Managers	To be decided	Completed.
	Implement short-term strategy (if approved by EPA).	Regional Managers	October 1, 1990	Implemented for WQ. Received EPA approval on AQ matrix 1-8-91.
B. Develop and implement a complaint response matrix which establishes priorities and identifies appropriate actions. (Goal 4, 8) (Resource reduction priorities all programs 4)	Form work group.	RO Administrator, Regional Managers	August 15, 1990	Delayed while Adm. serves as Acting AQ Adm. Work group will be formed and targets re-established by mid March 1991.
	Assess number and types of complaints. Evaluate various response options. Prepare draft matrix.	Work Group	September 15, 1990	(See Note Above)
	Submit draft matrix to regions/programs and Director for comment.	Work Group, Reviewers	October 15, 1990	(See Note Above)

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Review comments and modify as necessary	Work Group	November 15, 1990	(See Note Above)
	Pilot test the matrix in the regions; review in 6 months.	Regional Managers	December 1, 1990 - May 30, 1991	(See Note Above)
	Refine as necessary.	Work Group	June 15, 1991	(See Note Above)
	Implement	Regional Managers	July 1, 1991	(See Note Above)
C. Establish a base employee training program. (Goal 6, 7) (All programs highest priorities 5)	Identify basic training needs for each program	RO Administrator, Regional Managers, Program Managers, Training Coordinator	October 1, 1990	Behind schedule while Adm. serves as Acting AQ Adm. Regional managers have submitted draft training recommendations. DA will complete review & establish target dates by mid March 1991.
	Determine necessary resources, scheduling needs	RO Administrator, Regional Managers, Training Coordinator	November 15, 1990	
	Incorporate training requirement in employee work plans	Regional Managers, Supervisors	February 1, 1991	
	Implement		April 1, 1991	

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**Management Services Division Operating Plan
Priority Objectives related to Strategic Plan
Through June 30, 1991**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
A. Coordinate the development of a 1991-93 Operating Budget that reflects the Strategic Plan and proposes options for stable, long-term funding. (All Goals) (All Program High Priority 7)	Complete agency requested budget and submit to the Executive Department.	Division Administrators, Program Managers, Budget Office, Director, EQC.	August 28, 1990	Complete
	Revise based on Executive Dept. review and discussions. Submit Governor's Recommended Budget to the 1991 Legislature.	Division Administrators, Program Managers, Budget Office, Director, EQC.	January 8, 1991	Complete
	Seek Legislative approval of the budget.	Division Administrators, Program Managers, Budget Office, Director, EQC.	January-June 1991	
B. Coordinate the development of a comprehensive data management system which is accessible and useful to all programs. (Goals 1 & 2) (All Program High Priority 2)	Improve program and regional office access to electronic data by installing additional needed workstations and communication equipment.	MSD Administrator, Information Systems Office, and Program Managers.	August 1990	<i>Each Program prioritizes data base programming needs independently</i> Complete. Justice Dept. added. (Michael Huston)
	Develop DEQ Information Technology Plans and submit 1991-93 request to the Executive Department.	Information Systems Office, Division Administrators.	August 1990	Complete

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
C. Revise the Health and Safety Plan as needed and implement. (Goal 7) (All Program High Priority 6)	Review existing Health and Safety Plan, update	Health and Safety Manager	June 1990	Review Completed. Fourteen policy and procedures papers are in development. In process of hiring a new manager. Recently conducted and completed a review of training and personal protective equipment provided staff.
	Formally adopt implementation strategy.	Division Administrators, Director	July 1990	(See Note Above)
	Begin Implementation.	Health and Safety Manager, Division Administrators, and Director.	August 1990	(See Note Above)
D. Ensure that a consistent approach reflecting Department Values is followed in dealing with the public, the regulated community, and co-workers. (Goal 6)	Review and revise the Conflict of Interest policy.	Division Administrators, Director	September 1990	Review Started
	Develop a training segment for new employees.	Human Resources Office, MSD Administrator	November 1990	
E. Provide training and development opportunities for staff. (Goals 4, 6, & 7) (All Program High Priority 5)	Coordinate with Divisions to deliver training and development programs.	Human Resources Office, MSD Administrator	On-going	<i>Each Division identifies and prioritizes training needs.</i>
F. Implement an employee recognition program. (Goal 7)	Recruit and fill the Human Resources Manager vacancy.	MSD Administrator	July 1990	Position Filled August 1990

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Implement the approved plan.	Human Resources Manager, Division Administrators, Director	September 1990	Implementation started in October
G. Encourage Affirmative Action in the workplace.	Review, update and approve the Department's Affirmative Action Plan.	Human Resources Manager, Division Administrators, Director	September 1990	Update of Affirmative Action plan completed. Diversity in Workplace training provided to managers.
	Implement the approved plan.	Human Resources Manager, Division Administrators, Director	October 1990	

Department of Environmental Quality

Update 1/31/91

**Public Affairs Section Operating Plan
Priority Objectives related to Strategic Plan
Through June 30, 1991**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
Develop and implement new initiatives for informing the public about actions they can take to reduce pollution.	Develop set of educational objectives and priorities for the next year	Public Affairs Section	July 1, 1990	Completed -- (Pollution Prevention Theme)
	Revise and update agency brochure to include information on actions the public can take to reduce pollution	Public Affairs Section	To the printer by September 1, 1990	Draft Completed, Under Review
	Reprint and update the recycling curriculum - RE:Recycling. Include section on what the public can do to reduce pollution	Public Affairs Section	To the printer by September 1, 1990	Completed
	Develop and implement a distribution plan for the Clean Air curriculum	Public Affairs Section	July 1, 1990	Completed -- (Display at Science Teachers Association October 1990)
	Work with Tri-Met on developing a joint clean-air educational program	Public Affairs Section	September 1, 1990	Completed -- Ongoing project will be considered. Alternative transportation public service announcement with ODOT, Dept of Energy -- target date 3/91.
	Participate in public events with displays on what the public can do to reduce pollution:	Public Affairs Section		Ongoing
	Jackson County Clean Air Fair		September 1990	Completed
Klamath County "Operation Big Push"		September 1990	Canceled	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	2nd Quarter Status
	Zoo Project S.A.F.E.		June 1991.	Added: <ul style="list-style-type: none"> • Environmental Education Association Conference 11/90 • Childrens Fair 10/90 • Salmon Festival 10/90
	Develop a series of radio public service announcements to give the public car-care tips to reduce air pollution	Public Affairs Section	October 1, 1990	Delayed to 1991
	Facilitate a woodburning public education meeting with representatives of nonattainment areas	Public Affairs Section	August 1990	Cancelled
	Develop educational materials on household hazardous waste reduction	Public Affairs Section	Spring 1991.	Drafted
	Develop and produce a series of educational fact sheets on hazardous and solid waste reduction	Public Affairs Section	On-going	Ongoing
	Develop and Implement an educational campaign for Recycling Awareness Week	Public Affairs Section	Fall 1990	Completed Oct. 6-13, 1990
	Develop materials and participate in workshops on toxic use reduction	Public Affairs Section	Quarterly	Completed Ongoing
	Develop series of educational newspaper ads with Newspaper Publishers Association	Public Affairs Section	November 1990	Completed
	Develop series of educational factsheets on water quality	Public Affairs Section	On-going	
	Organize a DEQ staff Speakers Bureau	Public Affairs Section		Completed

**Environmental Quality Commission
Department of Environmental Quality**

Strategic Plan

INTRODUCTION

This document presents the proposed Strategic Plan for the Environmental Quality Commission and Department of Environmental Quality. As used in this document, the term "Agency" is an umbrella term used to represent both the Commission and the Department.

The strategic plan establishes a framework for making critical decisions wisely. The Strategic Plan is not concerned with "nuts and bolts" details of the agency's day-to-day operations. The plan focuses on significant issues where key results are essential. This strategic plan focuses on a short and medium range time span. It sets forth the Mission, Strategic Goals, and Priority Issues of the Agency. This strategic plan will be a primary yardstick for measuring and evaluating Legislative Concepts and Agency Budget Proposals for the 1991-93 Biennium.

ASSUMPTIONS

The following assumptions about the future of Oregon and the nature of future environmental issues, and the strategic planning process will have a bearing on the strategic goals and directions for the Agency:

- The quality of the environment in Oregon is the State's most valuable asset. It is cherished by current residents and attracts new residents.
- The Environment's assimilative capacity is finite.
- The population of Oregon will continue to increase, probably at a relatively rapid rate for the foreseeable future.
- Industrial and economic development will continue to increase, and shall be encouraged to provide jobs for Oregon's citizens, within a framework of sound environmental policy.
- A change in the nature and mix of industries in Oregon will occur to provide continued employment for existing residents in response to the predictable decline in timber harvest.
- A net migration of citizens to the state and particularly to the urban and suburban centers throughout the state will continue, placing a

growing strain on infrastructure and quality of life in the urban and suburban centers.

- Fiscal constraints will continue to limit available funding for additional staff. New or expanded programs will need to rely upon improvement in methods, management, and/or changes in program priorities.
- Environmental regulatory programs will progressively focus more and more upon the **individual** (both as polluters and as consumers of products and services which unduly contribute to our pollution problems) rather than solely upon cities and industries.
- The demand by the public for more information and more involvement in the deliberations on environmental quality will continue to grow.
- Federal requirements will continue to have a heavy bearing on the activities of the Agency.
- Technology and information will continue to improve and enhance the capability to monitor and protect the quality of the environment.
- The Environmental Quality Commission, as a citizen governing body, provides unique opportunities to help achieve goals the Department alone cannot achieve.
- The 1989 Legislatively Approved Budget for the Agency, new legislation to be implemented, and the agreements reflected in the State/EPA agreement (grant agreements) have already established major priorities for the Department for the period from July 1, 1989 through June 30, 1991. There is some ability to adjust priorities and reallocate resources, but significant shifts on an immediate basis will be difficult if not impossible.

MISSION

The Mission statement is a short, concise statement which indicates the purpose or reason for existence of the Agency in global terms.

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 GOALS

Strategic Goals identify the direction the Agency seeks to go or the general results the Agency desires to accomplish over the course of the next few years. The Strategic Goals are not specific as to how the desired results are to be accomplished. The Goal statements provide a "sense of direction" which guide the development of major projects or activities as well as the numerous decisions made by Department managers each day.

To aid in understanding the intent of the goal, descriptive statements are presented to provide additional detail on agency wide direction.

1. Address environmental issues on the basis of a comprehensive cross-media (air, water, land) approach.

This goal will require the Agency to revise and update procedures for permit application evaluation, permit issuance, review of engineering plans, and review of technical proposals to assure that 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.

2. Aggressively identify threats to public health or the environment and take steps to prevent problems which may be created.

This goal will require improved monitoring to provide essential data to describe current environmental quality, evaluate identified problems, model environmental effects of proposed actions, and evaluate trends in environmental quality. It will also be desirable to develop the capability to track regional/national/international technical/social/economic events and trends that may have significant relationship to Oregon environmental trends, programs, and opportunities for preventive action. It will be necessary to

develop enhanced and new capability to perform environmental trends analysis and evaluate varied sources of information to anticipate problems and develop problem-preventive strategies. Ongoing involvement in the state's land use program is also a key step in protecting the state's environmental quality in the face of growth.

3. Ensure that unallocated assimilative capacity exists by applying "highest and best" technology in conjunction with pollution prevention methods.

The environment has limited capacity to assimilate pollutants from human activities without interfering with public health and the quality of life our citizens enjoy. After extensive pollution control efforts, existing industries, cities, and citizen activities produce some residual pollution that utilizes portions of this assimilative capacity. This goal seeks to assure that we never allocate all of the assimilative capacity to existing sources and activities. As population and industry grow, it is necessary to find new ways to reduce and remove pollutants to meet this goal. We also will need to develop new and improved capability to determine the environmental assimilative capacity in areas and environmental media of concern. Refinement of the processes for determining the appropriate uses of increments of currently unused assimilative capacity will be required. The term "highest and best" is included to reflect a desire to push for better and better technology to control pollution, even if that level of technology is not currently needed to meet standards and assure that assimilative capacity is not exceeded. As such, "highest and best" is used more as a term of "art" than a term of "science".

4. Minimize the extent and duration of unpermitted releases to the environment through a technically sound compliance program which is timely, serves as a deterrent, and ensures that an economic advantage is not gained by non-compliance.

This goal anticipates review and restructuring of existing compliance assurance activities to assure that environmental quality objectives are achieved. Examples of actions that may be desirable to assist in achieving this goal include: review of existing permits and revision as neces-

sary to assure that permits are achievable and clearly understood by permittees, and that conflicting, unenforceable, or unessential permit conditions are eliminated; expansion of the use of self monitoring and reporting by sources (which is objective and valid) as a means to make more effective use of existing DEQ field staff; improvement of technical training of agency staff to make compliance determinations; and enhancement of the capacity and range of laboratory analytical capability to support field compliance determinations.

5. Promote public awareness of the environment and cultivate a personal sense of value and responsibility for a healthy environment.

Education is a primary way of accomplishing this goal. Past environmental quality control efforts have focused largely on treatment and control of industrial and municipal activities. Pollution control efforts are increasingly recognizing the larger number of small sources -- the activities of each of us as individuals. Thus, to achieve environmental quality goals, we need to secure assistance from experts in understanding options for changing attitudes of the public regarding their actions and environmental quality. We also need to develop a broad-based strategy for informing the public of the relationship between their actions and environmental quality, and integrate implementation of this strategy into all agency actions. Other options for action include exploring options for product labeling as a means of fostering awareness of environmental effects of marketplace products, and enhanced public involvement in agency program development.

6. Employ the highest professional and ethical standards in dealing with the public, regulated community, and co-workers.

This goal will require the Department to develop a clear statement of values to guide agency actions and attitudes. In part, this statement should reflect respect and appreciation for the views of others, and continue to result in decisions that are unbiased, objective, equitable, and based upon sound facts. All staff should be trained to ensure that a consistent approach reflecting department values is followed in

dealing with the public, regulated community, and co-workers.

7. Foster a workplace atmosphere which emphasizes safety; encourages affirmative action; promotes creativity, pride, enthusiasm, productivity, active participation in the issues; and allows staff members to apply their fullest capabilities.

If environmental goals are to be achieved, attention must also be paid to the work environment for the staff of the agency. We need to provide adequate time and opportunity for staff to perform quality work, to systematically acknowledge quality work, to promptly address deficient performance, to provide an environment which fosters participation and creativity, to assure a safe work-place through training and effective implementation of safety programs, and to continuously strive to meet affirmative action goals.

8. Streamline agency programs and activities by identifying and implementing more efficient ways to accomplish essential actions and by eliminating low priority tasks.

This goal will require the Agency to systematically evaluate rules, permits, procedures, policies, and activities to find ways to streamline and find more efficient ways to accomplish the desired results. It will also require identification of programs or activities that can more effectively and efficiently be accomplished by other government agencies and seek to transfer such activities to those agencies. Efforts are also appropriate to identify and eliminate work tasks which contribute little to environmental quality protection (accomplishing the goals of this plan) so as to free resource for higher priority tasks.

9. Maximize the effectiveness of the Environmental Quality Commission by formulating and overseeing attainment of Oregon's environmental goals.

The Environmental Quality Commission consists of five citizens appointed by the Governor. By law, they are responsible for establishing the policies, objectives and priorities which guide the Department in carrying out state environmental laws. They adopt environmental standards, and procedural rules which govern actions

by industries, cities, and citizens. They also review Department programs to assure that goals and objectives are achieved. The Commission has the opportunity to be a proactive force in the development of environmental policy. The Commission helps to bridge the gap between the citizen and the regulatory process. The effectiveness of the Commission can be enhanced through involvement in environmental policy issues at the earliest opportunity. However, to avoid diluting the effectiveness of the Commission, efforts must be made to increase the policy content of issues on the Commission agenda.

PRIORITIES

The Agency has identified priorities for each major program. It is assumed that on-going work (development and update of standards, pollution control strategy development, permit issuance, pollution control facility plan review, compliance inspections, enforcement, complaint investigation, environmental quality monitoring, etc.) will continue at approximately present levels unless identified as a potential target for modification as part of the priorities on these lists.

The Agency has also identified priorities for reduction of staff effort through modification, deferral, or elimination of activities in order to be able to assign resources to pursue identified high priorities.

The priorities are expected to be reflected in Division Operating Plans as specific objectives and tasks.

PRIORITIES FOR ALL PROGRAMS

High Priorities

1. Restructure compliance inspection programs to base the inspection frequency and level of effort for each source on the environmental threat posed by the source. (Goal 4)
2. Develop a comprehensive data management system that supports management decision making and facilitates exchange of information between Department programs and other agencies. (Goals 1 & 2)
3. Streamline the permit issuance process and eliminate the backlog of pending permit applications. (Goals 1 & 8)
4. Develop and implement new initiatives for informing the public about actions they can take to reduce pollution. (Goal 5)

5. Provide training and development opportunities for agency staff to assure a highly qualified and knowledgeable staff. (Goals 6 & 7)
6. Implement a Health & Safety Plan to protect employees who may come in contact with hazardous substances. (Goal 7)
7. Develop options for stable long term funding to achieve environmental protection goals. (All Goals)

Resource Reduction Priorities

- Reduce staff effort related to preparation for Environmental Quality Commission meetings by reducing the number of items on the agenda and, at the same time, increasing the policy content of items presented.
- Reduce staff effort expended in monitoring sources by increasing the reliance on valid and objective self monitoring and reporting. This will require development and implementation of effective programs for lab certification and selective auditing of self monitoring efforts.
- Reduce staff efforts by transferring activities that logically should and can be provided at the local level to the appropriate local governments.
- Reduce staff effort devoted to responding to issues which are solely nuisance in nature. (ie those that do not constitute a hazard to public health or the environment.)
- Modify technical assistance efforts to emphasize group approaches rather than one-on-one technical consultation. Also, develop technical assistance efforts which utilize the expertise of individuals and groups outside the Department to accomplish the desired goal.

WATER QUALITY PROGRAM

High Priorities

1. Obtain adequate information to determine the status of water quality in general and to establish the assimilative capacity for specific priority waterbodies. (The entire state should be assessed as rapidly as resources permit.) (Goals 2 & 5)
2. Utilize 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. (Goals 2 & 4)

3. 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. (Goals 1, 3, & 8)

Resource Reduction Priorities

- Defer development of a long-term lake protection/restoration program.
- Defer development of a statewide long term estuaries/ocean program.

AIR QUALITY PROGRAM

High Priorities

1. Achieve healthful air quality levels in all pre-1989 non-attainment areas and maintain healthful levels in all attainment areas while allowing for continued economic growth wherever possible. (Goals 2, 3, & 4)
2. Establish a systematic approach to complete and maintain a statewide assessment of Oregon's air quality. (Goal 2)
3. In order to significantly reduce harmful exposure of the public to airborne toxic pollutants, establish an air toxics program which, through the permit process, addresses both new and existing sources and provides a level of protection equal to that of other environmental media. (Goals 1 & 2)
4. Develop improved methods to achieve reductions in area source emissions such as: public education, consumer product labeling, emphasis on cleaner home heating systems, etc. (Goals 3 & 5)

Resource Reduction Priorities

- Woodstove certification program; defer to the national certification program.

HAZARDOUS AND SOLID WASTE PROGRAM

High Priorities

1. Develop consistent cleanup standards at waste management facilities under HSW jurisdiction and then identify and have a department approved strategy for cleanup of each problem site. (Goals 1 & 3)
2. Significantly reduce the disposal of domestic solid waste in the state through the adoption and implementation of solid waste reduction and

recycling goals and standards, improved markets for recyclables, and expanded education programs aimed at changing consumer habits. (Goal 2)

3. Significantly decrease the percent of domestic solid waste being disposed in landfills without state-of-the art technologies such as double liners and leachate collection through development and enforcement of new solid waste disposal standards. (Goal 3)
4. Significantly reduce the amount of toxic chemicals used and hazardous waste generated in the state through comprehensive implementation of the 1989 Toxic Use Reduction and Hazardous Waste Reduction law and enhanced technical assistance to hazardous waste generators. (Goals 3 & 4)
5. Significantly increase the amount of products purchased by government which utilize non-virgin materials in their manufacture.
6. Develop and implement comprehensive strategies to reduce the generation of special wastes and manage the special wastes that are generated. (Special wastes include household hazardous waste, waste from conditionally exempt hazardous waste generators, incinerator ash, infectious waste, oil contaminated wastes, etc.) (Goal 2)
7. Clarify the responsibility for solid waste management so that local governments are specifically responsible for solid waste planning and implementation of the laws that pertain to solid waste disposal and recycling.
8. Assist owners of underground storage tanks in complying with federal standards by comprehensive implementation of a 1989 law which provides grants for site and tank inspections and loan guarantees/interest rate subsidies for tank upgrades and cleanups.

Resource Reduction Priorities

- Substitute Department conducted monitoring of groundwater at solid waste disposal sites with valid and objective monitoring by site operators.
- Implement the new groundwater protection rules at high priority solid waste disposal sites only.
- Reduce the review of and eliminate the need to approve annual wasteshed recycling reports.
- Reduce the Department's workload by requiring RCRA facility operators, with Departmental oversight, to do the facility assessments necessary to obtain closure or post closure permits.

Now, the Department does the assessments for the operator.

- Substitute EPA guidance documents for one-on-one technical assistance to operators of hazardous waste sites who are developing corrective action strategies.

ENVIRONMENTAL CLEANUP PROGRAM

High Priorities

1. Enhance the environmental cleanup program to include a non-complex cleanup process (with an appropriate regional component) that will promote voluntary cleanups by responsible parties with limited DEQ oversight. (Goal 8)
2. Aggressively pursue responsible parties to ensure the use of their resources wherever possible to achieve timely cleanups and attain a goal of recovering at least 75% of DEQ expenditures for oversight of these cleanups. (Goal 4)
3. Complete rulemaking on criteria and procedures for the Confirmed Release List, the Site Inventory, Preliminary Assessments and the Hazard Ranking System and implement on an agency-wide basis. (Goals 1 & 2)
4. Secure funding for orphan site cleanups by receiving E-Board approval to sell Pollution Control Bonds to clean up one or more specific sites. (Goals 1 & 2)

Resource Reduction Priorities

- Defer implementation of rulemaking/guideline development necessary to do natural resource damage assessments. The Department is authorized to recover damages from responsible parties for injury to or destruction of natural resources caused by a release of hazardous substances.
- Defer further development of financial assistance program for responsible parties who are unable to finance investigations and cleanup. The Department has statutory authority to provide financial assistance in the form of loans and loan guarantees to needy responsible parties, but resources are inadequate to implement except on a very limited basis.
- Until "High Priority Issue" 1 above is implemented, assistance or oversight for most responsible parties wishing to voluntarily investigate and cleanup their sites will not be available.
- Defer adoption of rules defining an "unwilling" responsible party under HB 3515 and defer use

of the "non-binding review" provision of HB 3515. This means the Orphan Site Account in HSRAF (state superfund) will not be immediately available for cleanups at sites where the responsible parties are unwilling to conduct the cleanup using their resources.

WHAT COMES NEXT

Following are the anticipated next steps in the ongoing Strategic Planning Process:

1. Develop individual Operating Plans for each Division. The Senior Managers of the Department will then review operating plan priorities, prepare preliminary proposals for any reallocation of resources, and report to the Commission.

Note: Operating Plans are internal management documents developed by individual Divisions within the Department to guide day to day actions and facilitate achievement of the expectations reflected in the Budget, Federal Grant Agreements, and the Goals of the Strategic Plan. Operating Plans are the subject of discussion and review by Department managers on a frequent basis.

2. Develop Performance Indicators and a system for periodic reporting to the Commission.

Note: Performance Indicators are measures of accomplishment that are developed, tracked and routinely reported to the Commission and Department managers to provide a clear indication of progress toward meeting the Goals reflected in the Strategic Plan.

3. Develop preliminary legislative concept proposals and budget decision packages for early presentation and discussion with the Commission.
4. Annually review and update the Strategic Plan.

Approved by the Environmental Quality Commission
June 29, 1990

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February 7, 1991

BY MESSENGER

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

Re: Contested case hearing on NPDES Permit No.
100715, issued to the City of St. Helens

Dear Mr. Hansen:

Boise Cascade Corporation submits the following:

1. Boise Cascade Corporation's Motion for an Order Identifying Issues; and
2. Memorandum in Support of Boise Cascade Corporation's Motion for an Order Identifying Issues.

Copies of these documents have been mailed to the persons on the attached service list, including Hearings Office Denecke.

Very truly yours,



Michael R. Campbell

MRC:bak
Enclosures
cc (w/encl.): **Service List**

RECEIVED
FEB 08 1991

WATER QUALITY DIVISION
DEPT. OF ENVIRONMENTAL QUALITY

MRCP0031 15760/133

PORTLAND,
OREGON

BELLEVUE,
WASHINGTON

SEATTLE,
WASHINGTON

VANCOUVER,
WASHINGTON

ST. LOUIS,
MISSOURI

WASHINGTON,
DISTRICT OF COLUMBIA

1 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
2 OF THE STATE OF OREGON

3 In the matter of National)
4 Pollutant Discharge Elimination) BOISE CASCADE CORPORATION'S
5 System Waste Discharge Permit) MOTION FOR AN ORDER
6 Number 100715, issued to the) IDENTIFYING ISSUES
7 City of St. Helens on)
8 November 14, 1990)

9 Boise Cascade Corporation (Boise Cascade) moves the
10 Environmental Quality Commission (the Commission) for an order
11 defining in part¹ the issues before the Commission in this
12 contested case by answering the following questions in the
13 affirmative:

14 1. May Boise Cascade, pursuant to OAR 340-41-
15 205(2)(p)(C), present data demonstrating that the most
16 sensitive designated beneficial uses of the Lower Columbia
17 River will not be adversely affected by exceeding the 2,3,7,8-
18 tetrachlorodibenzo-p-dioxin (TCDD) criterion of 0.013 parts per
19 quadrillion (ppq) referenced in OAR 340-41-205(2)(p)(B)?

20 2. If the answer to question number 1 is yes, may Boise
21 Cascade as part of its demonstration pursuant to OAR 340-41-
22 205(2)(p)(C) present evidence and argument concerning the
23 following factors relevant to the water quality criterion for
24 TCDD which should be applied to the City of St. Helens' NPDES

25 ¹ Boise Cascade does not intend the definition of issues
26 sought by this motion to exclude other issues that have been or
 may be raised by the parties.

1 permit: risk level; cancer potency; fish consumption; and
2 bioaccumulation?

3 3. May Boise Cascade present evidence and argument, and
4 may the Commission determine, whether the long-term average
5 TCDD wasteload allocation (WLA) for the City of St. Helens'
6 NPDES permit should be less stringent than 0.27 milligrams per
7 day (mg/day) because

8 a. the applicable water quality criterion for TCDD
9 is greater than 0.013 ppq;

10 b. the model used to derive the "total maximum
11 daily load" (TMDL) for TCDD in the Columbia River and the
12 resulting TCDD WLA for the City's permit is scientifically
13 unsound;

14 c. as a matter of sound science, policy, and law,
15 less of the TMDL should be reserved as an additional
16 margin of safety; and


17 d. it is unlawful and inappropriate as a matter of
18 policy to allocate the entire loading capacity of the
19 Columbia River at the Canadian border to upstream sources?

20 Boise Cascade raised these issues in its Preliminary
21 Issue Statement submitted on January 10, 1991, and in its
22 Revised Preliminary Issue Statement submitted on January 30,
23 1991. Boise Cascade believes, however, that the Department of
24 Environmental Quality or other parties may contend that these
25 issues are not properly before the Commission in this
26 proceeding. Because of the great expense and effort that must

1 be expended to present evidence and argument on these issues,
2 Boise Cascade seeks by this motion to clarify at the outset
3 that these issues are properly before the Commission.

4 Boise Cascade requests oral argument on, and
5 expedited consideration of, this motion, which is supported by
6 the accompanying memorandum.

7 DATED: February 7, 1991.

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Richard Baxendale
11 Brian J. King
12 Michael R. Campbell
13 Of Attorneys for
14 Boise Cascade Corporation
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1 BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
2 OF THE STATE OF OREGON

3 In the matter of National)
4 Pollutant Discharge Elimination) MEMORANDUM IN SUPPORT OF
5 System Waste Discharge Permit) BOISE CASCADE CORPORATION'S
6 Number 100715, issued to the) MOTION FOR AN ORDER
7 City of St. Helens on) IDENTIFYING ISSUES
8 November 14, 1990)

9 This memorandum is submitted in support of Boise
10 Cascade Corporation's Motion for an Order Identifying Issues.
11 The motion requests an order defining in part¹ the issues
12 before the Commission by answering the following questions in
13 the affirmative:

14 1. May Boise Cascade, pursuant to
15 OAR 340-41-205(2)(p)(C), present data
16 demonstrating that the most sensitive
17 designated beneficial uses of the Lower
18 Columbia River will not be adversely
19 affected by exceeding the 2,3,7,8-
20 tetrachlorodibenzo-p-dioxin (TCDD)
21 criterion of 0.013 parts per quadrillion
22 (ppq) referenced in OAR 340-41-
23 205(2)(p)(B)?

24 2. If the answer to question number
25 1 is yes, may Boise Cascade as part of its
26 demonstration pursuant to OAR 340-41-
27 205(2)(p)(C) present evidence and argument
28 concerning the following factors relevant
29 to the water quality criterion for TCDD
30 which should be applied to the City of St.
31 Helens' NPDES permit: risk level; cancer
32 potency; fish consumption; and
33 bioaccumulation?

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¹ As noted in its motion, Boise Cascade does not intend this definition of issues to exclude other issues that have been or may be raised by the parties.

1 3. May Boise Cascade present
2 evidence and argument, and may the
3 Commission determine, whether the long-
4 term average TCDD wasteload allocation
5 (WLA) for the City of St. Helens' NPDES
6 permit should be less stringent than 0.27
7 milligrams per day (mg/day) because

8 a. the applicable water quality
9 criterion for TCDD is greater than
10 0.013 ppq;

11 b. the model used to derive the
12 "total maximum daily load" (TMDL) for
13 TCDD in the Columbia River and the
14 resulting TCDD WLA for the City's
15 permit is scientifically unsound;

16 c. as a matter of sound
17 science, policy, and law, less of the
18 TMDL should be reserved as an
19 additional margin of safety; and

20 d. it is unlawful and
21 inappropriate as a matter of policy to
22 allocate the entire loading capacity
23 of the Columbia River at the Canadian
24 border to upstream sources?

25 These issues were raised in Boise Cascade's Preliminary Issue
26 Statement submitted on January 10, 1991, and in its Revised
27 Preliminary Issue Statement submitted on January 30, 1991.

28 I. THE COMMISSION HAS THE AUTHORITY AND OBLIGATION TO DECIDE
29 ALL RELEVANT FACTUAL, LEGAL, AND POLICY ISSUES RAISED IN
30 THIS PROCEEDING

31 All factual, legal, and policy issues that are
32 relevant to the NPDES permit issued to the City of St. Helens
33 and that are raised by the parties are properly before the
34 Commission for decision. OAR 340-45-035(9) provides that an
35 applicant who "is dissatisfied with the conditions or
36

1 limitations of any NPDES permit issued by the Director . . .
2 may request a hearing before the Commission or its
3 representative." The applicant, the City of St. Helens,
4 requested a contested case hearing on the permit issued by the
5 Department of Environmental Quality, and the Commission by
6 order allowed other parties, including Boise Cascade, to
7 request to participate in the hearing. Boise Cascade filed its
8 request on December 4, 1990.

9 Nothing in OAR 340-45-035(9) or any other provision
10 of law limits the scope of issues before the Commission in a
11 contested case hearing on an NPDES permit issued by the
12 Department. Moreover, the Commission and the Department are
13 not distinct agencies; the Commission is the Department's
14 governing body and is responsible for establishing the policies
15 that the Department must follow. See ORS 468.015, -030,
16 -035(1), -045(1). In conducting contested case hearings on
17 NPDES permits issued by the Department, the Commission has at
18 least as much authority and discretion to establish the terms
19 of the permit as the Department, and, indeed, may go beyond the
20 Department to adopt new policies or revise existing policies to
21 the extent allowed by law. The Commission is not limited
22 merely to a review of the Department's action for factual and
23 legal errors.

1 II. THE ISSUE WHETHER A TCDD WATER QUALITY CRITERION GREATER
2 THAN 0.013 PPQ APPLIES TO THE CITY'S NPDES PERMIT IS
3 PROPERLY BEFORE THE COMMISSION

4 The City of St. Helens discharges treated effluent,
5 including effluent from Boise Cascade's St. Helens pulp and
6 paper mill, into the Columbia River at River Mile 86, which
7 lies within the North Coast-Lower Columbia River Basin.
8 OAR 340-41-205(2)(p) governs the discharge of toxic substances
9 into this basin² and provides in relevant part:

10 (p) Toxic Substances:

11

12 (B) Levels of toxic substances shall
13 not exceed the most recent criteria values
14 for organic and inorganic pollutants
15 established by EPA and published in Quality
16 Criteria for Water (1986). A list of the
17 criteria is presented in Table 20.

18 (C) The criteria in paragraph (B) of
19 this subsection shall apply unless data
20 from scientifically valid studies
21 demonstrate that the most sensitive
22 designated beneficial uses will not be
23 adversely affected by exceeding a criterion
24 or that a more restrictive criterion is
25 warranted to protect beneficial uses, as
26 accepted by the Department on a site
specific basis. . . .

Table 20, referenced in OAR 340-41-205(2)(p)(B),
lists four EPA guidance criteria values for TCDD, two for the
protection of freshwater aquatic life and two for the
protection of human health. Expressed in parts per quadrillion

² Identical rules govern the discharge of toxic
substances into all other basins in Oregon. See OAR chapter
340, division 41, Table 20.

1 (ppq) for purposes of comparison, the values for the protection
2 of aquatic life from acute effects and chronic effects are,
3 respectively, 10,000 ppq and 10 ppq. The values for the
4 protection of human health from a cancer risk of one in one
5 million caused by the consumption of fish alone and by the
6 consumption of both fish and water are, respectively, 0.014 ppq
7 and 0.013 ppq.

8 Under the Table 20 criteria referenced in
9 subparagraph (B), then, the water uses most "sensitive" to TCDD
10 are drinking water and fishing, which together are deemed to
11 require protection through a TCDD water quality criterion of
12 0.013 ppq at a cancer risk level of one in one million. Both
13 "domestic water supply" and "fishing" are designated beneficial
14 uses within the North Coast-Lower Columbia Basin. OAR 340-41-
15 202. The Department selected 0.013 ppq as the applicable water
16 quality criterion for TCDD, which provides the basis for the
17 TCDD effluent limits in City's permit.

18 Subparagraph (C) of OAR 340-41-205(2)(p), however,
19 makes clear that the Table 20 criteria referenced in
20 subparagraph (B) are only provisionally applicable: "The
21 criteria in paragraph (B) shall apply unless"
22 (Emphasis added.) Under subparagraph (C), the subparagraph (B)
23 criteria apply only in the absence of scientific evidence that
24 demonstrates that more or less stringent criteria are required
25 to protect designated beneficial uses. If such evidence is
26

1 available, the more or less stringent criteria apply in lieu of
2 the subparagraph (B) criteria.

3 The provision of subparagraph (C) that scientific
4 evidence concerning water quality criteria may be accepted "on
5 a site specific basis" also makes clear that this evidence may
6 be presented in the context of individual permit decisions.
7 Accordingly, this evidence may be presented in a contested case
8 before the Commission concerning an NPDES permit issued by the
9 Department. There is no requirement to petition for formal
10 rulemaking proceedings in order to present such evidence.³

11 Finally, the phrase "on a site specific basis" does
12 not limit the scientific demonstrations contemplated by
13 subparagraph (C) to demonstrations that a subparagraph (B)
14 criterion is inappropriate only as applied to a specific water
15 body. The right to demonstrate that a subparagraph (B)
16 criterion is too lenient or too stringent to protect designated
17 beneficial uses necessarily includes the right to demonstrate
18 that the criterion itself is scientifically unsound, no matter
19 what water body it is applied to. Otherwise, the Department
20 would be required to apply a demonstrably unsound water quality
21 criterion--whether too lenient or too stringent--simply because

22
23 ³ Indeed, the presentation of scientific evidence to
24 demonstrate that a subparagraph (B) criterion is too lenient or
25 too stringent does not involve the repeal, amendment, or
26 promulgation of a rule. The existing rules in the form of
subparagraphs (B) and (C) make the applicability of the
subparagraph (B) criteria subject to scientific evidence
demonstrating that different criteria are appropriate.

1 there was no evidence that there was anything peculiar about
2 the water body or its designated uses that would require an
3 adjustment in the criterion.

4 In sum, Boise Cascade has raised the issue whether
5 the 0.013 ppq TCDD water quality criterion referenced in OAR
6 340-41-205(2)(p)(B) for the protection of human health applies
7 to the City of St. Helens' NPDES permit. In order to address
8 this issue, Boise Cascade intends to introduce studies and
9 other scientific evidence that will demonstrate that
10 subparagraph (B) TCDD criterion is scientifically unsound and
11 that a TCDD criterion substantially less stringent than 0.013
12 ppq is needed to protect the Columbia River's designated
13 beneficial uses. Accordingly, pursuant to OAR 340-41-
14 205(2)(p)(C), this issue is properly before the Commission for
15 decision.

16 III. THE ISSUE WHETHER A WLA SHOULD BE APPLIED TO THE CITY'S
17 NPDES PERMIT, OR, IN THE ALTERNATIVE, WHETHER A WLA IN
18 EXCESS OF 0.27 MG/DAY SHOULD BE APPLIED, IS PROPERLY
BEFORE THE COMMISSION

19 Section 303 of the Clean Water Act, 33 U.S.C. § 1313,
20 in addition to requiring states to establish water quality
21 standards for its waters, requires the states to "identify
22 those waters within its boundaries for which [specified
23 technology-based] effluent limitations . . . are not stringent
24 enough to implement any water quality standard applicable to
25 such waters." 33 U.S.C. § 1313(d)(1)(A). The states must then
26 establish for these waters a "total maximum daily load" (TMDL)

1 for the relevant pollutant "at a level necessary to implement
2 the applicable water quality standards with seasonal variations
3 and a margin of safety." 33 U.S.C. § 1313(d)(1)(C). Rules
4 promulgated by the U.S. Environmental Protection Agency (EPA)
5 further require the states to enforce their TMDLs by
6 establishing WLAs for the point sources discharging the
7 relevant pollutant. See 40 C.F.R. § 130.7 (1990).

8 Thus, if the Columbia River is "water quality
9 limited" due to TCDD,⁴ Oregon must establish a TMDL for TCDD in
10 the Columbia River. See Scott v. City of Hammond, Ind., 741
11 F.2d 992, 996 (7th Cir. 1984). Although EPA has an independent
12 obligation to review state TMDLs and to establish a TMDL for a
13 state if the state refuses to adopt a required TMDL, see id. at
14 996-98, the Clean Water Act does not allow a state to delegate
15 its TMDL obligations to EPA. Moreover, the state's obligation
16 applies to waters such as the Columbia River that are within
17 more than one state; each state must adopt a TMDL for its
18 portion of interstate waters by applying its own water quality
19 standards for those waters. See id. at 996 (Clean Water Act
20
21

22 ⁴ The Department's determination that the Columbia River
23 is water quality limited due to TCDD is premised on a TCDD
24 water quality criterion of 0.013 ppq, the application of which
25 Boise Cascade has challenged pursuant to OAR 340-41-
26 205(2)(p)(C). If the Columbia River is not water quality
limited due to TCDD, no TCDD "total maximum daily load" for the
Columbia River or associated TCDD WLA for the City of St.
Helens is required. See 33 U.S.C. § 1313(d); 40 C.F.R. § 130.7
(1990).

1 required both Illinois and Indiana to establish TMDLs for the
2 portions of Lake Michigan within their boundaries).

3 Even in instances where EPA has established a TMDL
4 upon the failure of a state to establish a TMDL or to establish
5 an adequate TMDL, the state has a continuing obligation to
6 review and revise the TMDL. The state must do this in order to
7 ensure that the TMDL remains consistent with the TMDL
8 provisions of the Clean Water Act, just as the state has a
9 continuing obligation to review and revise state water quality
10 standards, even though those standards may have been
11 promulgated for the state by EPA.⁵ See 33 U.S.C. § 1313(c).

12 Boise Cascade contends in this proceeding that the
13 TCDD WLA for the City of St. Helens of 0.27 mg/day, which was
14 taken from a draft EPA TMDL for the Columbia River, is too
15 stringent for the reasons specified in the accompanying motion.
16 Given the state's obligation to establish a TMDL and associated
17 WLAs, and given its continuing obligation to review and revise
18 any TMDL established for the state by EPA, the TMDL issues
19 raised by Boise Cascade must be decided by the Commission.

20 Moreover, these issues may be decided in the context
21 of this contested case proceeding. Although a TMDL may fall
22 within the Oregon Administrative Procedure Act's (APA's) broad
23 definition of "rule," see ORS 183.310(8), and although the
24

25 ⁵ Of course, EPA may choose to disapprove a state-
26 established TMDL that it determines will not implement the
state's water quality standards. 33 U.S.C. § 1313(d)(2).

1 Commission could and has adopted TMDLs through rulemaking
2 proceedings, the APA does not require every decision that can
3 be characterized as a "rule" to be adopted through rulemaking
4 proceedings. The requirement that a particular decision be
5 made only in the context of rulemaking proceedings, if it
6 exists, must be found in an analysis of the statutes that
7 govern the EQC and of the nature of the rule. See Forelaws on
8 Board v. Energy Fac. Siting Council, 306 Or. 205, 214, 760 P.2d
9 212 (1988); Marbet v. Portland Gen. Elect., 277 Or. 447, 458-
10 69, 561 P.2d 154 (1977).

11 The Commission is authorized by ORS 468.730 to adopt
12 rules in accordance with the APA in order to implement the
13 Clean Water Act, but there is no statutory requirement that it
14 must adopt all rules that meet the APA definition through APA
15 rulemaking proceedings, much less a requirement that it
16 establish TMDLs and associated WLAs through APA rulemaking
17 proceedings. Indeed, Oregon statutes do not even mention TMDLs
18 or WLAs.

19 In addition, rules that the legislature intends to be
20 adopted through APA rulemaking proceedings are ordinarily
21 general statements having wide applicability. Establishment of
22 a TMDL involves a complex factual determination of the effects
23 of specific pollutants on a specific body of water. In
24 addition, the WLAs established in conjunction with TMDLs are
25 effluent limits that by definition apply only to a single
26 discharger. The nature of the TMDL and the process by which it

1 is established run counter to any implicit legislative intent
2 that TMDLs be established through the rulemaking procedures of
3 the APA.⁶

4 In this instance, even if the waters appropriately
5 subject to a TMDL for TCDD include the entirety of the Columbia
6 and Willamette Rivers and their tributaries, only three point
7 sources of TCDD have been identified to which effluent limits
8 could be applied as a result of the establishment of the TMDL.
9 These point sources are all parties to the present proceeding
10 or have requested to be parties. In addition, the Commission
11 has after public notice allowed other interested parties to
12 request to participate in this proceeding, which followed
13 public informational hearings on the permit applications of the
14 three dischargers. Cf. Marbet, 277 Or. at 463-64 (ability of
15 interested persons to intervene in a contested case may in some
16 circumstances serve the same function as rulemaking
17 procedures). Adding the rulemaking procedures of the APA to
18 this proceeding would be a meaningless exercise.

19 In sum, if the Commission determines that the
20 Columbia River is water quality limited due to TCDD, the
21 Commission must establish a TMDL for TCDD in the Columbia River
22 and associated WLAs. The TMDL and associated WLAs may be
23 established in the context of this contested case proceeding,
24

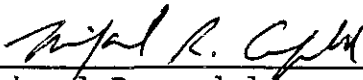
25 ⁶ The Commission, of course, may determine that
26 rulemaking proceedings to establish TMDLs are appropriate in
specific instances.

1 and Boise Cascade intends to present scientific evidence and
2 argument to establish that a WLA in excess of 0.27 mg/day is
3 appropriate for the City of St. Helens.

4
5 IV. CONCLUSION

6 For the foregoing reasons and the reasons stated in
7 the accompanying motion, the Commission should grant Boise
8 Cascade's motion to identify the issues set forth therein as
9 issues properly before the Commission in this proceeding.


10 DATED: February 7, 1991.

11
12 
13 _____
14 Richard Baxendale
15 Brian J. King
16 Michael R. Campbell
17 Of Attorneys for
18 Boise Cascade Corporation
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CERTIFICATE OF SERVICE

I certify that on February 7, 1991, I served the foregoing BOISE CASCADE CORPORATION'S MOTION FOR AN ORDER IDENTIFYING ISSUES and MEMORANDUM IN SUPPORT OF BOISE CASCADE CORPORATION'S MOTION FOR AN ORDER IDENTIFYING ISSUES on each of the persons on the attached service list by depositing with the United States Postal Service at Portland, Oregon, a true and complete copy thereof addressed to each of those persons at their addresses stated thereon, and with first-class postage prepaid.

DATED this 7th day of February, 1991.



Michael R. Campbell
Of Attorneys for
Boise Cascade Corporation

SERVICE LIST

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February 27, 1991

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Environmental Quality Commission
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Gentlemen:

This letter is in response to the E.Q.C.'s proposed rule changes to the Clean Water Act.

The first rule change with which I find fault is adding the word "wetlands" to the definition of "Waters of the State." Adding "wetlands" to the definition of "Waters of the State" and in combination with the proposed changes to the Antidegradation Policy and the addition of the Biological Criteria, will put D.E.Q. in the lead of any state or federal agency in "taking" private property (wetlands or adjacent lands) for the public benefit. With the Supreme Court now awarding monetary damages for "regulatory takings" of private property without just compensation, the D.E.Q. will be wrapped up in lawsuits and payouts for years to come. The proposed rule changes taken in combination and when adopted, would virtually "take" every wetland (regardless of type) in private ownership in the state.

The rule changes (under Section 401) would have the effect of eliminating all exemptions to wetlands regulations that are provided property owners under Section 404 of the Clean Water Act. An example of this (that would personally affect me) is that Section 404 as administered by the Corps, E.P.A., and D.S.L. have exemptions for removing fill material and beaver dams in drainage ditches. They allow you without a permit process to remove beaver dams for the purpose of ditch maintenance. No matter how one tries to look at it, the proposed rules would designate the beavers (nuisance animals) as "Aquatic life/species" and "Resident biological community" and bring into play a host of rules and requirements to protect their habitat and help them flourish. The act of removing the beaver dams from the ditches would be enough to change (at least in the very short term) the water quality of the "Resident biological community," thereby bringing the new rules into play. This could completely stop ditch maintenance. On my property, lack of ditch maintenance would cause water to pool onto land surrounding the ditch during the rainy season. It takes about seven days for land to become a "wetland" because the "any seven days during the growing season" requirement of the WET (federal) criteria for wetlands is waved as most of the Oregon Coast is considered a year round growing season so that only the hydrology and hydric soils requirements have to be met. So

CONTINUED

lack of ditch maintenance compels me to let wetlands be created on adjacent lands because I have no way to pass the waters on without harming the "Resident biological community" by removing the beaver dams from the ditches.

The new rules would also require that I do further damage to my property by requiring me to enhance the beaver habitat on the ditches to a standard that is equal to that of an "Appropriate reference site or region" which basically means that I have to bring their habitat up to that of a best case scenario. Vector control districts would have the same problems because mosquitoes would fall under the designation of "Resident biological community" and chemical applications that would harm the mosquitoes or their habitat would be subject to the new rules and regulations and could conceivably stop all vector control.

It should be noted that the Division of State Lands does not claim authority over all wetlands. State law has defined what wetlands the D.S.L has jurisdiction over. On the other hand, the proposed E.Q.C. rule changes have no controls nor limitations whatsoever on D.E.Q.'s powers or authority where wetlands are concerned. The E.Q.C. is operating like a bull in a China shop with no forethought to the consequences of the rule changes it is proposing. Virtually none of the proposed changes in the Clean Water Act have adverse effects on private property except where "wetlands" are concerned, and the "wetlands" have been treated with no regard whatsoever to private property owners. In fact, no property owners with wetlands were even given notice of the rule changes or meetings. So with the addition of "wetlands" to the definition of "Waters of the State" the E.Q.C. (under Section 401) now has the ability to override exemptions given property owners in other sections (404) of the Clean Water Act. The word "marshes" in the original definition of "Waters of the State" was chosen so as to specifically exclude drainage ditches and other types of wetlands. When the original rules and definitions of "Waters of the State" were written, "wetlands" was a term that was widely used, but agencies such as the Forest Service used the term "marshes" in preference to "wetlands" so as to put a limit on what type of wetlands were being regulated. My preference would be to leave the word "marshes" in as the definition and not add "wetlands" or in the alternate exclude ditches specifically from the term "wetlands" and exclude "Biological criteria" and "Antidegradation Policy" from being linked to "wetlands." Conceivably, under the proposed rules property owners with "wetlands" that have hydrology under the surface (up to eighteen inches underground) may be required to flood the surface of their property to enhance the "Resident biological community" whether that community is plant, animal, visible or microbiologic.

The second rule change I find fault with are all the additions to the "Antidegradation Policy," specifically #1-D on Pages A2-2 and A2-3. These rules combined with "wetlands" and "Biological Criteria" set up a defacto planning organization that allows D.E.Q. to control development on private lands through a hearing process and does nothing more than add a redundant layer of government at great expense to the public and state.

CONTINUED

The third rule change I find fault with is "Biological Criteria." I have stated earlier how this criteria (biological) in combination with the addition of "wetlands" has a severe effect on private property owners. It also would give complete protection to nuisance animals such as beaver and nutria, and would also protect mosquitoes and other hazardous insects that spend part of their lives in water. The effect of these new rules is that they will compel property owners to create wetlands through flooding caused by not being able to maintain drainage ditches blocked by beavers (the "resident biological community") dams. They also end any chance of developing even the most marginal of wetlands because of the effect of disturbed water quality on animals, plants (weeds) and insects (mosquitoes). It is interesting to note that the biological criteria has a completely different relationship to all the other definitions of "Waters of the State" because all of those other definitions actually relate to water and not to surface lands (wetlands). I have no problem with the state applying the "Biological Criteria" to any wetlands where the state owns the property in fee title.

In conclusion I ask that "wetlands" be stricken from the definition of "Waters of the State" as "marshes" covers the pristine and valuable types of wetlands. Adding "wetlands" to the definition also causes jurisdiction overlap with other agencies that are legislatively tasked with protecting wetlands. Section 404 of the Clean Water Act protects wetlands, and Section 401 should not be used by the E.Q.C. as a defacto method of wetlands protection.

In the alternative, if "wetlands" are not removed from the definitions, I ask that no new language be adopted in the "Antidegradation Policy" and that "Biological Criteria" either be stricken entirely or limited in scope so as not to be applicable to "wetlands" (ditches, farmland, wet pastures, wet meadows, etc.).

I attended an E.Q.C. hearing in Newport about the rule changes and I was told by staff that the addition of the word "wetlands," the changes to the "Anti-degradation Policy," and the addition of "Biological Criteria" would have no affect at all on how the laws are currently administered. If this is true, then the changes don't need to be made. The fact of the matter is that the changes have severe and smothering impacts on private property.

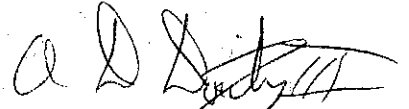
It is clear that there is no forthought by the E.Q.C. of how those water quality rule changes would affect private property. Surface lands (wetlands that are in private ownership) and water quality standards are not compatible. Several other state agencies have legislative mandates to protect wetlands (surface lands) and E.Q.C.'s intentionally creating jurisdiction overlap should be avoided. The rule changes that I have mentioned are regulatory takings of private property and violate both Federal and State Constitutions. With the passage of Measure 5 the last thing D.E.Q. needs is to have rules that will keep it wrapped up in court with the "takings" of private properties and all the associated "just compensation," (\$).

CONTINUED

be

It would probably be cheaper and less time-consuming if E.Q.C. were to just add a rule requiring condemnation of all wetlands. This would be equivalent to your "regulatory taking" of private property but would still cost billions of dollars. With this in mind, maybe now would be a good time for D.E.Q. to greatly up its budget requests.

Sincerely,



A. D. Dority III

ADD: tmf

Copies to Pacific Legal Foundation, Oregonians in Action, And Others

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the matter of National)	
Pollutant Discharge Elimination	)	MOTION OF
System Waste Discharge Permit	)	JAMES RIVER II, INC.
Number 100716, issued to	)	FOR AN ORDER
James River II, Inc. on	)	IDENTIFYING ISSUES
November 14, 1990)	

James River II, Inc. ("James River") moves the Environmental Quality Commission (the "Commission") for an order defining in part^{1/} the issues before the Commission in this contested case by answering the following questions in the affirmative:

1. May James River, pursuant to OAR 340-41-205(2)(p)(C), present data demonstrating that the most sensitive designated beneficial uses of the Lower Columbia River will not be adversely affected by exceeding the 2,3,7,8-tetrachloro-dibenzo-p-dioxin ("TCDD") criterion of 0.013 parts per quadrillion ("ppq") listed in OAR 340-41-205(2)(p)(B)?

2. If the answer to question number 1 is yes, may James River as part of its demonstration pursuant to OAR 340-41-205(2)(p)(C) present evidence and argument concerning the following factors relevant to the water quality criterion for TCDD which should be applied to James River's NPDES

^{1/} James River does not intend the definition of issues sought by this motion to exclude other issues that have been or may be raised by the parties.

permit: risk level; cancer potency; fish consumption; and bioaccumulation?

3. May James River present evidence and argument, and may the Commission determine, whether the long-term average TCDD wasteload allocation ("WLA") for James River's NPDES permit should be less stringent than 0.21 milligrams per day (mg/day) because

a. the applicable water quality criterion for TCDD is greater than 0.013 ppq;

b. the model used to derive the "total maximum daily load" ("TMDL") for TCDD in the Columbia River and the resulting TCDD WLA for James River's permit is scientifically unsound;

(c) as a matter of sound science, policy, and law, less of the TMDL should be reserved as an additional margin of safety; and

(d) it is unlawful and inappropriate as a matter of policy to allocate the entire loading capacity of the Columbia River at the Canadian border to upstream sources?

James River raised these issues in its Preliminary Issue Statement submitted on January 11, 1991, and in its Revised Preliminary Issue Statement submitted on January 30, 1991. James River believes, however, that the Department of Environmental Quality or other parties may contend that these issues are not properly before the Commission in this

proceeding. Because of the great expense and effort that must be expended to present evidence and argument on these issues, James River seeks by this motion to clarify at the outset that these issue are properly before the Commission.

James River requests oral argument on, and expedited consideration of, this motion. James River relies on, and incorporates here by reference, the memorandum submitted by Boise Cascade Corporation in support of its motion for an order identifying issues in the proceeding before the Commission captioned "In the Matter of National Pollutant Discharge Elimination System Waste Discharge Permit Number 100715, issued to the City of St. Helens on November 14, 1990."

DATED: February 13, 1991.

LANE POWELL SPEARS LUBERSKY

By: *Richard H. Williams*

John W. Gould
Richard H. Williams

Attorneys for James River II, Inc.

STATE OF OREGON
County of Multnomah

)
) ss.
)

I, Nancy H. Lewis, being duly sworn, depose and say:
(1) I am a competent person over the age of 18 years and a resident of Oregon, and I am neither a party nor an attorney in the proceeding entitled In the Matter of NPDES Waste Discharge Permit No. 100716, issued to James River II, Inc. on November 14, 1990, before the Environmental Quality Commission of the State of Orgon; (2) I am a person regularly employed by Lane Powell Spears Lubersky, with offices at 520 S.W. Yamhill Street, Suite 800, Portland, Oregon 97204-1383, who are attorneys for James River II, Inc. in said proceeding; (3) On February 13, 1991, I served all parties in said proceeding by mailing a true copy of the foregoing Motion of James River II, Inc. for an Order Identifying Issues in a sealed envelope with postage paid addressed as follows:

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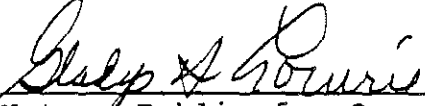
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Richard Baxendale, Esq.
506 National Building
1008 Western Avenue
Seattle, Washington 98104



SUBSCRIBED AND SWORN TO before me this 13th day of
February, 1991.



Notary Public for Oregon
My commission expires 7-9-91

Lane Powell Spears Lubersky
520 S.W. Yamhill Street, Suite 800
Portland, Oregon 97204-1383 (503) 226-6151

LANE
POWELL
SPEARS
LUBERSKY

February 13, 1991

The Honorable Arno H. Denecke
3890 Dakota Road, S.E.
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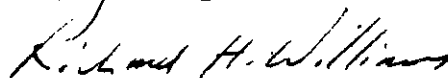
A Partnership
Including
Professional
Corporations

Re: In the Matter of NPDES Waste
Discharge Permit No. 100716 issued to
James River II, Inc. on November 14, 1990
Our File No. 4185-286

Dear Justice Denecke:

Enclosed for filing is the Motion of James River
II, Inc. for an Order Identifying Issues. The Motion is
identical to the motion filed recently by Boise Cascade
Corporation.

Very truly yours,



Richard H. Williams

Enclosure

cc/encl: Service List

Anchorage, AK
Los Angeles, CA
Mount Vernon, WA
Olympia, WA
Portland, OR
Seattle, WA
London, England
Tokyo, Japan

RECEIVED
FEB 14 1991

WATER QUALITY DIVISION
DEPT. OF ENVIRONMENTAL QUALITY

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the matter of the)	
NPDES Waste Discharge)	
Permit No. 3754-J,)	
James River II, Inc.,)	NCAP AND CRU'S NOTICE
Wauna Mill, and the NPDES)	OF RESPONSE TO BOISE
Waste Discharge Permit)	CASCADE'S MOTION FOR
No. 100715, City of)	AN ORDER IDENTIFYING
St. Helens)	ISSUES

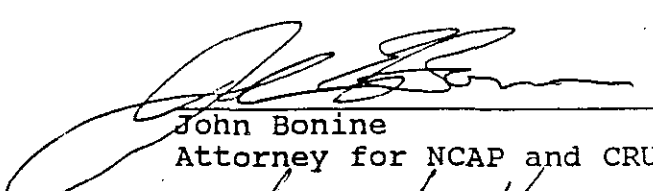
Northwest Coalition For Alternatives to Pesticides and Columbia River United hereby give the Hearings Officer and all parties notice of their intent to file a response to Boise Cascade's Motion For An Order Identifying Issues and the City of St. Helens' endorsement of that motion. The response will be filed with the Hearings Officer no later than March 4, 1991. We have consulted with all other parties and no objections were raised as to this date.

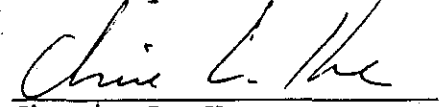
Neither the Attorney General's Uniform and Model Rules Applicable to Contested Cases, the Oregon Administrative Procedures Act, nor DEQ statutes and rules appear to indicate a time for responding to a motion in a contested case hearing. NCAP and CRU believe that this response time is reasonable and will not delay the proceeding.

DATED this 25th day of February, 1991.

RECEIVED
FEB 27 1991

WATER QUALITY DIVISION
DEPT. OF ENVIRONMENTAL QUALITY


John Bonine
Attorney for NCAP and CRU


Cherie L. Howe
Legal Intern

CERTIFICATE OF SERVICE

The undersigned hereby certifies that she is the Office Manager of the Western Natural Resources Law Clinic and is a person of such age and discretion as to be competent to serve papers.

That on February 25, 1991, she served a copy of NCAP and CRU'S Notice of Response to Boise Cascade's Motion For An Order Identifying Issues by placing said copies in a first-class postage paid envelope addressed to the persons listed on the attached list, and by depositing said envelope in the United States mail at Eugene, Oregon.


Kathryn A. Cannon

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Arno Denecke
Hearings Officer
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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the Matter of NPDES Permits) DEQ MEMORANDUM IN RESPONSE
Issued to JAMES RIVER II, INC.,) TO BOISE CASCADE'S MOTION
#100716; and CITY OF ST.) FOR AN ORDER IDENTIFYING
HELENS, #100715) ISSUES

By notice of February 21, 1991, the Environmental Quality Commission (EQC) stated its intent to consider Boise Cascade's Motion for an Order Identifying Issues.¹ The EQC allowed parties to submit written memoranda on the motion by March 4, 1991.

The Department of Environmental Quality (DEQ) submits this memorandum opposing (1) Boise Cascade's request to present data in this proceeding on the effect of tetrachlorodibenzo-p-dioxin (TCDD) on beneficial uses of the Lower Columbia River and other factors relating to the appropriateness of the TCDD water quality criteria; (2) Boise Cascade's request to present technical evidence and argument on the TCDD Total Maximum Daily Load (TMDL) and Waste Load Allocation (WLA).

The TCDD Water Quality Criterion

Boise Cascade seeks an affirmative ruling by the EQC on the following questions:

///

///

¹ The City of St. Helens and James River II, Inc. made the same motion subsequent to filing by Boise Cascade.

1 - DEQ MEMORANDUM IN RESPONSE TO BOISE CASCADE'S
MOTION FOR AN ORDER IDENTIFYING ISSUES
(dld 6126H)

RECEIVED
MAR 05 1991
WATER QUALITY DIVISION
DEPT. OF ENVIRONMENTAL QUALITY

1. May Boise Cascade, pursuant to OAR 340-41-205(2)(p)(C), present data demonstrating that the most sensitive designated beneficial uses of the Lower Columbia River will not be adversely affected by exceeding the 2,3,7,8-tetra-chlorodibenzo-p-dioxin (TCDD) criterion of 0.013 parts per quadrillion (ppq) referenced in OAR 340-41-205(2)(p)(B)?

2. If the answer to question number 1 is yes, may Boise Cascade as part of its demonstration pursuant to OAR 340-41-205(2)(p)(C) present evidence and argument concerning the following factors relevant to the water quality criterion for TCDD which should be applied to the City of St. Helens' NPDES permit: risk level; cancer potency; fish consumption; and bioaccumulation?

DEQ believes the Commission should deny the request because the water quality standard and criterion for TCDD established in OAR 340-41-205(2)(p) (Appendix A) are not properly at issue in this proceeding.

The water quality criterion for TCDD applicable to the Lower Columbia River Basin was adopted by the EQC by rule in 1987. As Boise Cascade correctly explains in its memorandum, that rule establishes the TCDD criterion as .013 ppq based on human health protection related to fish and water consumption. Boise Cascade argues, however, that subparagraph C of OAR 340-41-205(2)(p) makes the Table 20 criteria only "provisionally applicable." Boise Cascade Memorandum p. 5.

Subparagraph C of OAR 340-41-205(2)(p) reads as follows:

"(C) The criteria in paragraph (B) of this subsection shall apply unless data from scientifically valid studies demonstrate that

the most sensitive designated beneficial uses will not be adversely affected by exceeding a criterion or that a more restrictive criterion is warranted to protect beneficial uses, as accepted by the Department on a site specific basis. Where no published EPA criteria exist for a toxic substance, public health advisories and other published scientific literature may be considered and used, if appropriate, to set guidance values." (Emphasis added.)

Boise Cascade's argument misconstrues the rule.

Subparagraph C merely provides DEQ the ability to make site-specific judgments based on data from scientific studies relevant to individual stream segments or localized areas. The Table 20 criteria are generic to basins while Subparagraph C provides for site-specific criteria adjustments based on unique stream characteristics where found appropriate by DEQ.

DEQ's June 13, 1986 staff report to the EQC requesting authorization to conduct public hearings on proposed amendments to the water quality standards explained the intent of the rule:

"The proposed language modifications for the new Toxic Substances standard is summarized as follows:

1. Include a general statement of policy that prohibits injurious levels of toxics in the water to protect beneficial uses, and a reference to the most recent EPA criteria values.
2. Include authorization for the Department to allow either more or less restrictive values for site-specific situations. Due to the unique nature of many waters within the state, established criteria values (or guide concentrations) may not always be set at the appropriate level to protect the designated beneficial uses of certain waterways. The Department

should have the ability to make site-specific judgements based on the data from scientifically valid studies." (Emphasis added.)

DEQ interprets subparagraph C as having very limited applicability where a published EPA priority pollutant numeric criterion such as that for TCDD has been adopted because the EPA criteria are presumptively based on the best available scientific information.

Boise Cascade is not seeking to make a limited site-specific demonstration as contemplated by subparagraph C. It seeks instead to challenge the risk level, cancer potency, fish consumption and bioaccumulation factors upon which the criterion is based. Boise Cascade expressly acknowledges that its challenge is not site-specific but attempts to argue that it need not be:

"The phrase 'on a site-specific basis' does not limit the scientific demonstrations contemplated by subparagraph C to demonstrations that a subparagraph (B) criterion is inappropriate only as applied to a specific water body. The right to demonstrate that a subparagraph (B) criterion is too lenient or too stringent to protect designated beneficial uses necessarily includes the right to demonstrate that the criterion itself is scientifically unsound no matter what water body it is applied to. Otherwise the Department would be required to apply a demonstrably unsound water quality criterion--whether too lenient or too stringent--simply because there was no

evidence that there was anything peculiar about the water body or its designated use that would require an adjustment in the criterion." Boise Cascade Memorandum pp. 6, 7.

Boise Cascade's argument is inconsistent with the wording and intent of the rule. Its challenge to the TCDD water quality criterion is thus not proper in this proceeding. The challenge does not come within the limited purview of subparagraph C because it is not based on unique site-specific conditions.

DEQ is presently in the process of rule-making as part of its section 303(c) federal Clean Water Act "Triennial Review" of water quality standards.² The pending rulemaking proceeding is the appropriate forum to address generic TCDD water quality issues. The EQC will have ample opportunity to review those issues when evaluating the proposed rule.

TMDL ISSUES

With respect to TMDL issues Boise Cascade's motion seeks an affirmative ruling on the following questions:

May Boise Cascade present evidence and argument, and may the Commission determine, whether the long-term average TCDD wasteload allocation (WLA) for the City of St. Helens' NPDES permit should be less stringent than 0.27 milligrams per day (mg/day) because

² In the context of the Triennial Review, DEQ has evaluated the type of evidence sought to be introduced by Boise Cascade in this proceeding. DEQ is proposing not to amend the TCDD water quality standards. See Issue Paper #9 attached as Appendix B.

- a. the applicable water quality criterion for TCDD is greater than 0.013 ppq;
- b. the model used to derive the "total maximum daily load" (TMDL) for TCDD in the Columbia River and the resulting TCDD WLA for the City's permit is scientifically unsound;
- c. as a matter of sound science, policy, and law, less of the TMDL should be reserved as an additional margin of safety; and
- d. it is unlawful and inappropriate as a matter of policy to allocate the entire loading capacity of the Columbia River at the Canadian border to upstream sources?

DEQ opposes review of the TMDL and WLA in this proceeding.

A TMDL is essentially an implementation plan for achieving water quality standards required by section 303(d) of the federal Clean Water Act. TMDLs are required for streams identified by states as water quality limited, i.e. waters in which existing effluent limitations are not stringent enough to attain the applicable water quality standards. Oregon has identified the Columbia River as water quality limited for 2,3,7,8 -- TCDD.

The TMDL process consists of (1) defining the loading capacity of the stream for the pollutant of concern, (2) identifying sources of the pollutant, (3) allocating loads to point and nonpoint sources (waste load allocations or WLAs), (4) implementing the TMDL through permits and management plans.

The TMDL, therefore, establishes the maximum loading capacity for a pollutant in a stream and divides up that total load by allocating allowable discharges among sources. When a TMDL is implemented through NPDES permits, the actual permit limitations are calculated from the waste load allocations (WLAs) established in the TMDL.

When the NPDES permits in this case were issued by DEQ in November of 1990, the TCDD permit limitations were calculated based on a draft TMDL document prepared by EPA. At that time, the draft EPA TMDL did not have the force of federal law. Therefore, review of the underlying basis of DEQ's permit limitation calculations by the EQC may have been appropriate in this contested case.

On February 15, 1991, however, EPA established a final federal TMDL for the Columbia River Basin. (Appendix C.) The final TMDL and WLA numbers are identical to those in the draft TMDL used by DEQ in developing the NPDES permit for St. Helens and James River. Now that the TMDL has been established as a matter of federal law, there is no basis for contested case review by the EQC. The EPA TMDL document expressly states:

"This TMDL shall become effective immediately, and is incorporated into the water quality management plans for the states of Washington, Oregon, and Idaho under Clean Water Act 303(e). Subsequent state actions must be consistent with this TMDL."

EPA's establishment of a TMDL was specifically requested by Oregon, Washington, and Idaho on March 21, 1990, in letters

from the states indicating that they would not establish state TMDLs. This action by the states was based on their desire for consistency and equity in regulating discharges to waters in the multi-state Columbia River Basin.

EPA formally disapproved the state actions (the no TMDL actions) under 303(d)(2) of the federal Clean Water Act and subsequently established the federal TMDL.

DEQ believes the federal TMDL has been properly and legally established. It is subject to judicial review in the federal courts. See TMDL Decision Document p. 3-11. Unless overturned, however, the states have no discretion to modify the TMDL in a manner inconsistent with the federal TMDL.

CONCLUSION

For the foregoing reasons, DEQ requests that the motions for affirmative rulings on the water quality standard and TMDL issues by Boise Cascade, St. Helens and James River be denied.

Respectfully submitted,

By: 

LARRY EDELMAN, OSB 89158
Assistant Attorney General
Counsel for DEQ

CERTIFICATE OF SERVICE

I certify that on March 4, 1991, a copy of DEQ's Memorandum in Response to Boise Cascade's Motion for an Order Identifying Issues was served on the parties listed below by depositing said copies in the United States Mail, postage prepaid:



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Assistant Attorney General

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1256H/aa

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 41 — DEPARTMENT OF ENVIRONMENTAL QUALITY

the Department to meet with the local government or responsible agency to formulate proposed revisions to one or both so as to resolve the conflict. Revisions will be presented for adoption via the same process used to adopt the plan unless other specific procedures are established by law.

Stat. Auth.: ORS Ch. 468
Hist.: DEQ 128, f. & ef. 1-21-77

Nuisance Phytoplankton Growth

340-41-150 The following values and implementation program shall be applied to lakes, reservoirs, estuaries and streams, except for ponds and reservoirs less than 10 acres in surface area, marshes and saline lakes:

(1) The following average Chlorophyll a values shall be used to identify water bodies where phytoplankton may impair the recognized beneficial uses:

(a) Natural lakes which thermally stratify: 0.01 mg/l;

(b) Natural lakes which do not thermally stratify, reservoirs, rivers and estuaries: 0.015 mg/l.

Average Chlorophyll a values shall be based on the following methodology (or other methods approved by the Department): a minimum of three (3) samples collected over any three consecutive months at a minimum of one representative location (e.g., above the deepest point of a lake or reservoir or at a point mid-flow of a river) from samples integrated from the surface to a depth equal to twice the secchi depth or the bottom (the lesser of the two depths); analytical and quality assurance methods shall be in accordance with the most recent edition of **Standard Methods for the Examination of Water and Wastewater**.

(2) Upon determination by the Department that the values in section (1) of this rule are exceeded, the Department shall:

(a) In accordance with a schedule approved by the Commission, conduct such studies as are necessary to describe present water quality; determine the impacts on beneficial uses; determine the probable causes of the exceedance and beneficial use impact; and develop a proposed control strategy for attaining compliance where technically and economically practicable. Proposed strategies could include standards for additional pollutant parameters, pollutant discharge load limitations, and other such provisions as may be appropriate.

Where natural conditions are responsible for exceedance of the values in section (1) of this rule or beneficial uses are not impaired, the values in section (1) of this rule may be modified to an appropriate values for that water body;

(b) Conduct necessary public hearings preliminary to adoption of a control strategy, standards or modified values after obtaining Commission authorization;

(c) Implement the strategy upon adoption by the Commission.

(3) In cases where waters exceed the values in section (1) of this rule and the necessary studies are not completed, the Department may approve new

activities (which require Department approval), new or additional (above currently approved permit limits) discharge loadings from point sources provided that it is determined that beneficial uses would not be significantly impaired by the new activity or discharge.

(Publication: 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 Ch. 468
Hist.: DEQ 7-1986, f. & ef. 3-26-86

North Coast-Lower Columbia Basin

Beneficial Water Uses to be Protected

340-41-202 Water quality in the North Coast-Lower Columbia River Basin (see Figures 1 and 2) shall be managed to protect the recognized beneficial uses as indicated in Table 1.

Stat. Auth.: ORS Ch. 468
Hist.: DEQ 128, f. & ef. 1-21-77; DEQ 9-1985, f. & ef. 8-6-85

Water Quality Standards Not to be Exceeded (To be adopted pursuant to ORS 468.725 and enforceable pursuant to ORS 468.720, 468.990, and 468.992.)

340-41-205 (1) Notwithstanding the water quality standards contained below, the highest and best practicable treatment and/or control of wastes, activities, and flows shall in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor, and other deleterious factors at the lowest possible levels.

(2) No wastes shall be discharged and no activities shall be conducted which either alone or in combination with other wastes or activities will cause violation of the following standards in the waters of the North Coast — Lower Columbia River Basin:

(a) Dissolved oxygen (DO):

(A) Fresh waters: DO concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes.

(B) Marine and estuarine waters outside of zones of upwelled marine waters naturally deficient in DO: DO concentrations shall not be less than 6 mg/l for estuarine waters, or less than saturation concentrations for marine waters.

(C) Columbia River: DO concentrations shall not be less than 90 percent of saturation.

(b) Temperature:

(A) Columbia River: No measurable increases shall be allowed outside of the assigned mixing zone, as measured relative to a control point immediately upstream from a discharge, when stream temperatures are 68° F. or greater, or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are

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67.5° F. or less; or more than 2° F. increase due to all sources combined when stream temperatures are 66° F. or less, except for specifically limited duration activities which may be authorized by DEQ under such conditions as DEQ and the Department of Fish and Wildlife may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable and all practical preventive techniques have been applied to minimize temperature rises. The Director shall hold a public hearing when a request for an exception to the temperature standard for a planned activity or discharge will in all probability adversely affect the beneficial uses.

(B) All other freshwater streams and tributaries thereto: No measurable increases shall be allowed outside of the assigned mixing zone, as measured relative to a control point immediately upstream from a discharge when stream temperatures are 58° F. or greater; or more than 0.5° F. increase due to a single-source discharge when receiving water temperatures are 57.5° F. or less; or more than 2° F. increase due to all sources combined when stream temperatures are 56° F. or less, except for specifically limited duration activities which may be authorized by DEQ under such conditions as DEQ and the Department of Fish and Wildlife may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable and all practical preventive techniques have been applied to minimize temperature rises. The Director shall hold a public hearing when a request for an exception to the temperature standard for a planned activity or discharge will in all probability adversely affect the beneficial uses.

(C) Marine and estuarine waters: No significant increase above natural background temperatures shall be allowed, and water temperatures shall not be altered to a degree which creates or can reasonably be expected to create an adverse effect on fish or other aquatic life.

(c) Turbidity (Jackson Turbidity Units, JTU): No more than a 10 percent cumulative increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity. However, limited duration activities necessary to address an emergency or to accommodate essential dredging, construction or other legitimate activities and which cause the standard to be exceeded may be authorized provided all practicable turbidity control techniques have been applied and one of the following has been granted:

(A) Emergency activities: Approval coordinated by DEQ with the Department of Fish and Wildlife under conditions they may prescribe to accommodate response to emergencies or to protect public health and welfare.

(B) Dredging, Construction or other Legitimate Activities: Permit or certification authorized under terms of Section 401 or 404 (Permits and Licenses, Federal Water Pollution Control Act) or OAR 141-85-100 et seq. (Removal and Fill Permits, Division of State Lands), with limitations and conditions

governing the activity set forth in the permit or certificate.

(d) pH (hydrogen ion concentration): pH values shall not fall outside the following ranges:

(A) Marine waters: 7.0 — 8.5.

(B) Estuarine and fresh waters: 6.5 — 8.5.

(e) Organisms of the coliform group where associated with fecal sources (MPN or equivalent MF using a representative number of samples):

(A) Columbia River from the Highway 5 bridge between Vancouver and Portland to the mouth: A log mean of 200 fecal coliform per 100 milliliters based on a minimum of 5 samples in a 30-day period with no more than 10 percent of the samples in the 30-day period exceeding 400 per 100 ml.

(B) Marine waters and estuarine shellfish growing waters: A fecal coliform median concentration of 14 organisms per 100 milliliters, with not more than 10 percent of the samples exceeding 43 organisms per 100 ml.

(C) Estuarine waters other than shellfish growing waters: A log mean of 200 fecal coliform per 100 milliliters based on a minimum of 5 samples in a 30-day period with no more than 10 percent of the samples in the 30-day period exceeding 400 per 100 ml.

(f) Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed.

(g) The liberation of dissolved gases, such as carbon-dioxide, hydrogen sulfide, or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such waters shall not be allowed.

(h) The development of fungi or other growths having a deleterious effect on stream bottoms, fish or other aquatic life, or which are injurious to health, recreation, or industry shall not be allowed.

(i) The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish shall not be allowed.

(j) The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry shall not be allowed.

(k) Objectionable discoloration, scum, oily slick, or floating solids, or coating of aquatic life with oil film shall not be allowed.

(l) Aesthetic conditions offensive to the human senses of sight, taste, smell, or touch shall not be allowed.

(m) Radioisotope concentrations shall not exceed maximum permissible concentrations (MCP's) in drinking water, edible fishes or shellfishes, wildlife, irrigated crops, livestock and dairy products, or pose an external radiation hazard.

(n) The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and ten percent (110%) of saturation, except when

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stream flow exceeds the 10-year, 7-day average flood. However, for Hatchery receiving waters and waters of less than 2 feet in depth, the concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed one hundred and five percent (105%) of saturation.

(o) Total Dissolved Solids: Guide concentrations listed below shall not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in rule 340-41-202:

(A) Columbia River — 500.0 mg/l;

(B) All other Fresh Water Streams and Tributaries — 100.0 mg/l;

(p) Toxic Substances:

(A) Toxic substances shall not be introduced above natural background levels in the waters of the state in amounts, concentrations, or combinations which may be harmful, may chemically change to harmful forms in the environment, or may bioaccumulate to levels that adversely affect public health, safety, or welfare; aquatic life; or other designated beneficial uses.

(B) Levels of toxic substances shall not exceed the most recent criteria values for organic and inorganic pollutants established by EPA and published in *Quality Criteria for Water* (1986). A list of the criteria is presented in Table 20.

(C) The criteria in paragraph (B) of this subsection shall apply unless data from scientifically valid studies demonstrate that the most sensitive designated beneficial uses will not be adversely affected by exceeding a criterion or that a more restrictive criterion is warranted to protect beneficial uses, as accepted by the Department on a site specific basis. Where no published EPA criteria exist for a toxic substance, public health advisories and other published scientific literature may be considered and used, if appropriate, to set guidance values.

(D) Bio-assessment studies such as laboratory bioassays or instream measurements of indigenous biological communities, shall be conducted, as the Department deems necessary, to monitor the toxicity of complex effluents, other suspected discharges or chemical substances without numeric criteria, to aquatic life. These studies, properly conducted in accordance with standard testing procedures, may be considered as scientifically valid data for the purposes of paragraph (C) of this subsection. If toxicity occurs, the Department shall evaluate and implement measures necessary to reduce toxicity on a case-by-case basis.

(3) Where the natural quality parameters of water of the North Coast — Lower Columbia River Basin are outside the numerical limits of the above assigned water quality standards, the natural water quality shall be the standard.

(4) Mixing zones:

(a) The Department may allow a designated portion of a receiving water to serve as a zone of initial dilution for waste water and receiving waters to mix thoroughly and this zone will be defined as a mixing zone.

(b) The Department may suspend all or part of

the water quality standards, or set less restrictive standards, in the defined mixing zone, provided that the following conditions are met:

(A) The water within the mixing zone shall be free of:

(i) Materials in concentrations that will cause acute (96HLC50) toxicity to aquatic life. Acute toxicity is measured as the lethal concentration that causes 50 percent mortality of organisms within a 96-hour test period.

(ii) Materials that will settle to form objectionable deposits.

(iii) Floating debris, oil, scum, or other materials that cause nuisance conditions.

(iv) Substances in concentrations that produce deleterious amounts of fungal or bacterial growths.

(B) The water outside the boundary of the mixing zone shall:

(i) Be free of materials in concentrations that will cause chronic (sublethal) toxicity. Chronic toxicity is measured as the concentration that causes long-term sublethal effects, such as significantly impaired growth or reproduction in aquatic organisms, during a testing period based on test species life cycle. Procedures and end points will be specified by the Department in waste water discharge permits.

(ii) Meet all other water quality standards under normal annual low flow conditions.

(c) The limits of the mixing zone shall be described in the waste water discharge permit. In determining the location, surface area, and volume of a mixing zone area, the Department may use appropriate mixing zone guidelines to assess the biological, physical, and chemical character of receiving waters, and effluent, and the most appropriate placement of the outfall, to protect instream water quality, public health, and other beneficial uses. Based on receiving water and effluent characteristics, the Department shall define a mixing zone in the immediate area of a waste water discharge to:

(A) Be as small as feasible;

(B) Avoid overlap with any other mixing zones to the extent possible and be less than the total stream width as necessary to allow passage of fish and other aquatic organisms;

(C) Minimize adverse effects on the indigenous biological community especially when species are present that warrant special protection for their economic importance, tribal significance, ecological uniqueness, or for other similar reasons as determined by the Department;

(D) Not threaten public health;

(E) Minimize adverse effects on other designated beneficial uses outside the mixing zone.

(d) The Department may request the applicant of a permitted discharge for which a mixing zone is required, to submit all information necessary to define a mixing zone, such as:

(A) Type of operation to be conducted;

(B) Characteristics of effluent flow rates and composition;

(C) Characteristics of low flows of receiving waters;

(D) Description of potential environmental effects;

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(E) Proposed design for outfall structures.

(e) The Department may, as necessary, require mixing zone monitoring studies and/or bioassays to be conducted to evaluate water quality or biological status within and outside the mixing zone boundary.

(f) The Department may change mixing zone limits or require the relocation of an outfall if it determines that the water quality within the mixing zone adversely affects any existing beneficial uses in the receiving waters.

(5) Testing methods: The analytical testing methods for determining compliance with the water quality standards contained in this rule shall be in accordance with the most recent edition of **Standard Methods for the Examination of Water and Waste Water** published jointly by the **American Public Health Association, American Water Works Association, and Water Pollution Control Federation**, unless the Department has published an applicable superseding method, in which case testing shall be in accordance with the superseding method; provided, however, that testing in accordance with an alternative method shall comply with this rule if the Department has published the method or has approved the method in writing.

[Publication: 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 Ch. 468

Hist.: DEQ 128, f. & ef. 1-21-77; DEQ 1-1980, f. & ef. 1-9-80;

DEQ 18-1987, f. & ef. 9-4-87

Minimum Design Criteria for Treatment and Control of Wastes

340-41-215 Subject to the implementation program set forth in rule 340-41-120, prior to discharge of any wastes from any new or modified facility to any waters of the North Coast — Lower Columbia River Basin, such wastes shall be treated and controlled in facilities designed in accordance with the following minimum criteria (In designing treatment facilities, average conditions and a normal range of variability are generally used in establishing design criteria. A facility once completed and placed in operation should operate at or near the design limit most of the time but may operate below the design criteria limit at times due to variables which are unpredictable or uncontrollable. This is particularly true for biological treatment facilities. The actual operating limits are intended to be established by permit pursuant to ORS 468.740 and recognize that the actual performance level may at times be less than the design criteria.):

(1) Sewage wastes:

(a) During periods of low stream flows (approximately May 1 to October 31): Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control.

(b) During the period of high streamflows (approximately November 1 to April 30) and for

direct ocean discharges: A minimum of secondary treatment or equivalent control and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities at maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

(c) Effluent BOD concentrations in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) shall not exceed one (1) unless otherwise approved by the EQC.

(d) Sewage wastes shall be disinfected, after treatment, equivalent to thorough mixing with sufficient chlorine to provide a residual of at least 1 part per million after 60 minutes of contact time unless otherwise specifically authorized by permit.

(e) Positive protection shall be provided to prevent bypassing raw or inadequately treated sewage to public waters unless otherwise approved by the Department where elimination of inflow and infiltration would be necessary but not presently practicable.

(f) More stringent waste treatment and control requirements may be imposed where special conditions may require.

(2) Industrial wastes:

(a) After maximum practicable inplant control, a minimum of secondary treatment or equivalent control (reduction of suspended solids and organic material where present in significant quantities, effective disinfection where bacterial organisms of public health significance are present, and control of toxic or other deleterious substances).

(b) Specific industrial waste treatment requirements shall be determined on an individual basis in accordance with the provisions of this plan, applicable federal requirements, and the following:

(A) The uses which are or may likely be made of the receiving stream;

(B) The size and nature of flow of the receiving stream;

(C) The quantity and quality of wastes to be treated; and

(D) The presence or absence of other sources of pollution on the same watershed.

(c) Where industrial, commercial, or agricultural effluents contain significant quantities of potentially toxic elements, treatment requirements shall be determined utilizing appropriate bioassays.

(d) Industrial cooling waters containing significant heat loads shall be subjected to offstream cooling or heat recovery prior to discharge to public waters.

(e) Positive protection shall be provided to prevent bypassing of raw or inadequately treated industrial wastes to any public waters.

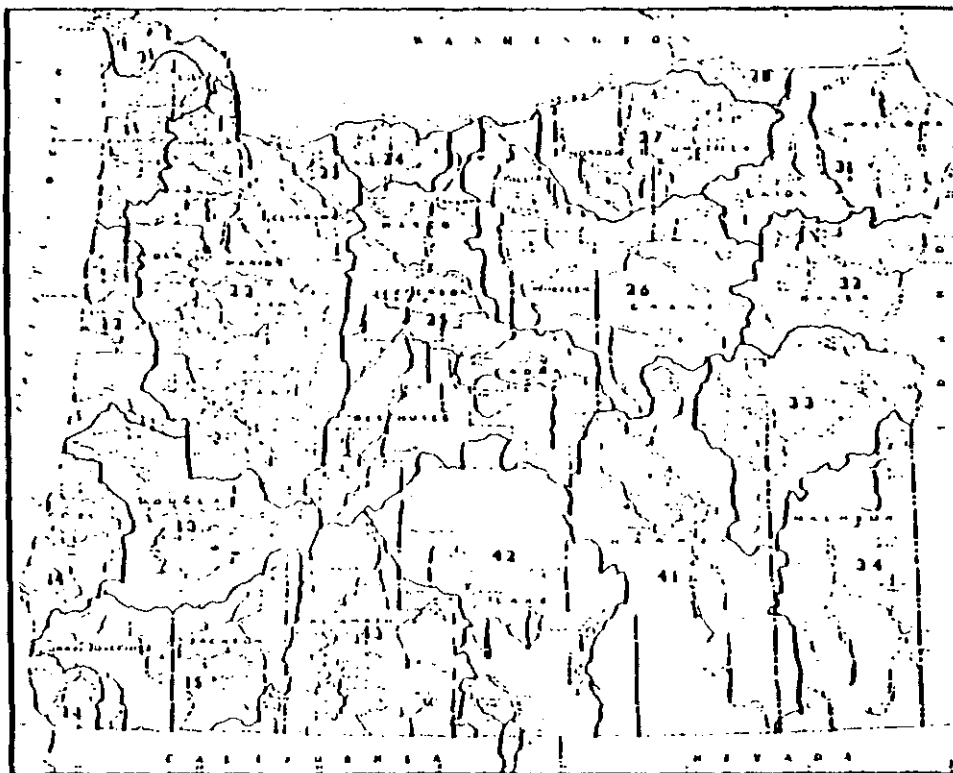
(f) Facilities shall be provided to prevent and contain spills of potentially toxic or hazardous materials and a positive program for containment and cleanup of such spills should they occur shall be developed and maintained.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 128, f. & ef. 1-21-77

Mid Coast Basin

FIGURE 1
BASIN INDEX MAP



<u>Basin No.</u>	<u>Basin</u>	<u>Rule Number</u>
11-21	North Coast - Lower	
	Columbia	340-41-202
12	Mid Coast	340-41-242
13	Umpqua	340-41-282
14	South Coast	340-41-322
15	Rogue	340-41-362
22	Willamette	340-41-442
23	Sandy	340-41-482
24	Hood	340-41-522
25	Deschutes	340-41-562
26	John Day	340-41-602
27	Umatilla	340-41-642
28	Walla Walla	340-41-682
31	Grande Ronde	340-41-722
32	Powder	340-41-762
33	Halheur River	340-41-802
34	Owyhee	340-41-842
41	Halheur Lake	340-41-882
42	Goose & Summer Lakes	340-41-922
43	Klamath	340-41-962

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**OREGON
DRAINAGE
BASINS**

Map by Don Wood, Environmental Quality

Figure 2
NORTH COAST - LOWER COLUMBIA BASIN
(340-41-202)

(Note: Basin Boundaries are as shown in figure below.)

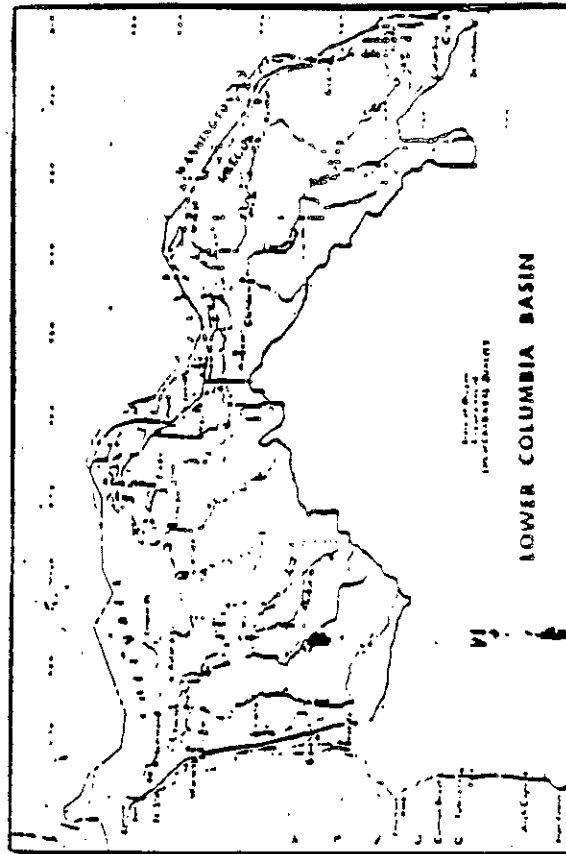
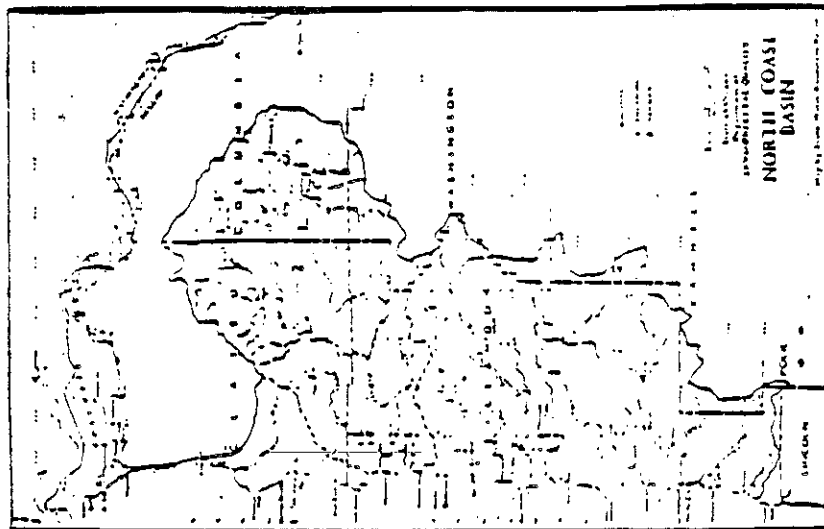


TABLE 19
(340-41-962)

Beneficial Uses	Klamath River From Klamath Lake to Keno Dam (RM 255 to 232.5)	Lost River (RM 5 to 65) and Lost River Diversion Channel	All Other Basin Waters
Public Domestic Water Supply ^{1/}	X	X	X
Private Domestic Water Supply ^{1/}	X	X	X
Industrial Water Supply	X	X	X
Irrigation	X	X	X
Livestock Watering	X	X	X
Salmonid Fish Rearing ^{2/}			X
Salmonid Fish Spawning ^{2/}			X
Resident Fish & Aquatic Life	X	X	X
Wildlife & Hunting	X	X	X
Fishing	X	X	X
Boating	X	X	X
Water Contact Recreation	X	X	X
Aesthetic Quality	X	X	X
Hydro Power	X		
Commercial Navigation & Transportation			

^{1/} With adequate pretreatment and natural quality to meet drinking water standards.

^{2/} Where natural conditions are suitable for salmonid fish use.

TABLE 20
 WATER QUALITY CRITERIA SUMMARY
 (Applicable to all basins)¹

The concentration for each compound listed in this chart is a criteria or guidance value¹ not to be exceeded in waters of the state for the protection of aquatic life and human health. Specific descriptions of each compound and an explanation of values are included in Quality Criteria for Water (1986). Selecting values for regulatory purposes will depend on the most sensitive beneficial use to be protected, and what level of protection is necessary for aquatic life and human health.

COMPOUND NAME (OR CLASS)	PRIORITY POLLUTANT	CARCINOGEN	Concentration in Micrograms Per Liter For Protection of Aquatic Life				Concentration in Units Per Liter For Protection of Human Health		
			FRESH ACUTE CRITERIA	FRESH CHRONIC CRITERIA	MARINE ACUTE CRITERIA	MARINE CHRONIC CRITERIA	WATER AND FISH INGESTION	FISH CONSUMPTION ONLY	DRINKING WATER M.C.L.
ACENAPHTHENE	Y	N	*1,700.	*520.	*970.	*710.			
ACROLEIN	Y	N	*60.	*21.	*55.		320.ug	700.ug	
ACRYLONITRILE	Y	Y	*7,550.	*2,600.			0.058ug**	0.65ug**	
ALDRIN	Y	Y	3.0		1.3		0.074ng**	0.079ng**	
ALKALINITY	N	N		20,000.					
AMMONIA	N	N	CRITERIA ARE pH AND TEMPERATURE DEPENDENT—SEE DOCUMENT						
ANTHONY	Y	N	*9,000.	*1,600.			146.ug	45,000.ug	
ARSENIC	Y	Y					2.2ng**	17.5ng**	0.05mg
ARSENIC (PENT)	Y	Y	*850.	*48.	*2,312.	*13.			
ARSENIC (TRI)	Y	Y	360.	190.	69.	36.			
ASBESTOS	Y	Y					30Kf/l.**		
BARIUM	N	N					1.mg		1.0mg
BENZENE	Y	Y	*5,300.		*5,100.	*700.	0.66ug**	40.ug**	
BEZIDINE	Y	Y	*2,500.				0.12ng**	0.53ng**	
BERYLLIUM	Y	Y	*130.	*5.3			6.8ng**	117.ng**	
BIIC	Y	N	*100.		*0.34				
CADMIUM	Y	N	3.9+	1.1+	43.	9.3	10.ug		0.010mg
CARBON TETRACHLORIDE	Y	Y	*35,200.		*50,000.		0.4ug**	6.94ug**	
CHLORDANE	Y	Y	2.4	0.0043	0.09	0.004	0.46ng**	0.48ng**	
CHLORINATED BENZENES	Y	Y	*250.	*50.	*160.	*129.	488.ug		
CHLORINATED NAPHTHALONES	Y	N	*1,600.		*7.5				
CHLORINE	N	N	19.	11.	13.	7.5			
CHLOROALKYL ETHERS	Y	N	*238,000.						
CHLOROETHYL ETHER (BIS-2)	Y	Y					0.03ug**	1.36ug**	
CHLOROFORM	Y	Y	*28,900.	*1,240.			0.19ug**	15.7ug**	
CHLOROISOPROPYL ETHER (BIS-2)	Y	N					34.7ug	4.36mg	
CHLOROETHYL ETHER (BIS)	Y	N					0.0000376ng**	0.00184ug**	
CHLOROPHENOL 2	Y	N	*4,300.	*2,000.					
CHLOROPHENOL 4	N	N			*29,700.				
CHLOROPHENOXY HERBICIDES (2,4,5,-TP)	N	N					10.ug		
CHLOROPHENOXY HERBICIDES (2,4-D)	N	N					100.ug		
CHLOROPYRIFOS	N	N	0.003	0.041	0.011	0.0056			
CHLORO-4 METHYL-3 PHENOL	N	N	*30.						
CHROMIUM (HEX)	Y	N	16.	11.	1.100	50.	50.ug		0.05mg
CHROMIUM (TRI)	N	N	1,700.+	210.+	*10,300.		179.mg	3,433.mg	0.05mg
COPPER	Y	N	18.+	12.+	2.9	2.9			
CYANIDE	Y	N	22.	5.2	1.	1.	200.ug		

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TABLE 20
WATER QUALITY CRITERIA SUMMARY (continued)

COMPOUND NAME (OR CLASS)	PRIORITY POLLUTANT	CARCINOGEN	Concentration in Micrograms Per Liter For Protection of Aquatic Life				Concentration in Units Per Liter For Protection of Human Health		
			FRESH ACUTE CRITERIA	FRESH CHRONIC CRITERIA	MARINE ACUTE CRITERIA	MARINE CHRONIC CRITERIA	WATER AND FISH INGESTION	FISH CONSUMPTION ONLY	DRINKING WATER H.C.L.
DDT	Y	Y	1.1	0.001	0.13	0.001	0.024ug**	0.024ug**	
DDT METABOLITE (DDE)	Y	Y	*1,050.		*14.				
DDT METABOLITE (TDE)	Y	Y	*0.06		*3.6				
DEBTOI	Y	N		0.1		0.1			
DIBUTYL PHTHALATE	Y	N					35.mg	154.mg	
DICHLOROBENZENES	Y	N	*1,120.	*763.	*1,970.		400.ug	2.6ug	
DICHLOROBENZIDINE	Y	Y					0.01ug**	0.020ug**	
DICHLOROETHANE 1,2	Y	Y	*118,000.	*20,000.	*113,000.		0.94ug**	243.ug**	
DICHLOROETHYLENES	Y	Y	*11,600.		*224,000.		0.033ug**	1.85ug**	
DICHLOROPICNICOL 2,4	N	N	*2,020.	*365.			3.09mg		
DICHLOROPROPANE	Y	N	*23,000.	*5,700.	*10,300.	*3,040.			
DICHLOROPROPENE	Y	N	*6,060.	*244.	*790.		87.ug	14.1mg	
DIELDRIN	Y	Y	2.5	0.0019	0.71	.0019	0.071ng**	0.076ng**	
DIEETHYL PHTHALATE	Y	N					350.mg	1.8g	
DIMETHYL PHTHALATE	Y	N	*2,120.				313.mg	2.9g	
DINITROCHLORURE 2,4	N	Y					0.11ug**	9.3ug**	
DINITROCHLORURE	Y	N					70.ug	14.3ug	
DINITROCHLORURE	N	Y	*330.	*230.	*590.	*370.			
DINITRO-O-CRESOL 2,4	Y	N					13.4g	765.ug	
DIOXIN (2,3,7,8-TCDD)	Y	Y	*0.01	*0.00001			0.000013ng**	0.000014ng**	
DIPHENYLHYDRAZINE	Y	N					42.ug**	0.56ug**	
DIPHENYLHYDRAZINE 1,2	Y	N	*270.						
DI-2-ETHYLHEXYL PHTHALATE	Y	N					15.mg	50.mg	
ENDOSULFAN	Y	N	0.22	0.056	0.034	0.0087	74.ug	159.ug	
ENDRIN	Y	N	0.18	0.0023	0.037	0.0023	1.ug		0.0002ug
ETHYL BENZENE	Y	N	*32,000.		*430.		1.4ug	3.28ug	
FLUORANTHENE	Y	N	*3,980.		*40.	*16.	42.ug	54.ug	
GUTHION	N	N		0.01		0.01			
HALOETHERS	Y	N	*360.	*122.					
HALOETHANES	Y	Y	*11,000.		*12,000.	*6,400.	0.19ug**	15.7ug**	
HEPTACHLOR	Y	Y	0.52	0.0038	0.053	0.0036	0.28ng**	0.29ug**	
HEXACHLOROETHANE	N	Y	*980.	*540.	*940.		1.9ug	8.74ug	
HEXACHLOROBENZENE	Y	N					0.72ng**	0.74ng**	
HEXACHLOROBUTADIENE	Y	Y	*90.	*9.3	*12.		0.45ug**	50.ug**	
HEXACHLOROCYCLOHEXANE (LINDANE)	Y	Y	2.0	0.08	0.16				0.004mg
HEXACHLOROCYCLOHEXANE-ALPHA	Y	Y					9.2ng**	31.ug**	
HEXACHLOROCYCLOHEXANE-BETA	Y	Y					16.3ng**	54.7ug**	
HEXACHLOROCYCLOHEXANE-GAMA	Y	Y					18.6ng**	62.5ug**	
HEXACHLOROCYCLOHEXANE-TECHNICAL	Y	Y					12.3ng**	41.4ug**	
HEXACHLOROCYCLOPENTADIENE	Y	N	*7.	*5.2	*7.		206.ug		
IRON	N	N		1,000.			0.3mg		
ISOPHORONE	Y	N	*117,000.		*12,900.		5.2mg	520.ug	
LEAD	Y	N	82.+	3.2+	140.	5.6	50.ug		
MALATHION	N	N		0.1		0.1			

TABLE 20
WATER QUALITY CRITERIA SUMMARY (continued)

COMPOUND NAME (OR CLASS)	PRIORITY NEGLIGANT	CARCINOGEN	Concentration in Micrograms Per Liter For Protection of Aquatic Life				Concentration in Units Per Liter For Protection of Human Health		
			FRESH AQUIC CRITERIA	FRESH CHRONIC CRITERIA	MARINE AQUIC CRITERIA	MARINE CHRONIC CRITERIA	WATER AND FISH DIGESTION	FISH CONSUMPTION CRIT.	DRINKING WATER M.C.L.
MANGANESE	N	N					50.ug	100.ug	
MERCURY	Y	N	2.4	0.012	2.1	0.025	144.ng	146.ng	0.002mg
METHOXYCHLOR	N	N		0.03		0.03	100.ug		0.1mg
NITREX	N	N		0.001		0.001			
MONOCHLOROBENZENE	Y	N					488.ug		
NAPHTHALENE	Y	N	*2,300.	*620.	*2,350.				
NICKEL	Y	N	1,400.+	160+	75	8.3	13.4ug	100.ug	
NITRATES	N	N					10.mg		10.mg
NITROBENZENE	Y	N	*27,000.		*6,660.		19.8mg		
NITROPHENOLS	Y	N	*230.	*150.	*4,850.				
NITROANILINES	Y	Y	*5,850.		*3,300,000		0.8ng**	1,240.ng**	
NITRODIBUTYLAMINE N	Y	Y					6.4ng**	587.ng**	
NITRODIBETHYLAMINE N	Y	Y					0.8ng**	1,240.ng**	
NITRODIMETHYLAMINE N	Y	Y					1.4ng**	16,000.ng**	
NITRODIPHENYLAMINE N	Y	Y					4,900.ng**	16,100.ng**	
NITROSPYRROLIDINE N	Y	Y					16.ng**	91,500.ng**	
PARATHION	N	N	0.065	0.013					
PCB's	Y	Y	2.0	0.014	10.	0.03	0.079ng**	0.079ng**	
PENTACHLORINATED ETANES	N	N	*7,240.	*1,100.	*390.	*281.			
PENTACHLOROBENZENE	N	N					74.ug	60.ug	
PENTACHLOROPHENOL	Y	N	**20.	**13.	13.	*7.9	1.01mg		
PHENOL	Y	N	*10,200.	*2,560.	*5,800.		3.5mg		
PHOSPHORUS ELEMENTAL	N	N				0.1			
PHTHALATE ESTERS	Y	N	*9/0.	*3.	*2,944.	*3.4			
POLYNUCLEAR AROMATIC HYDROCARBONS	Y	Y			*300.		2.8ng**	31.1ng**	
SILICON	Y	N	260.	35.	410.	54.	10.ug		0.01mg
SILVER	Y	N	4.1+	0.12	2.3		50.ug		0.05mg
SULFIDE-HYDROGENSULFIDE	N	N		2.0		2.0			
TETRACHLORINATED ETANES	Y	N	*9,320.						
TETRACHLOROBENZENE 1,2,4,5	Y	N					38.ug	48.ug	
TETRACHLOROETHANE 1,1,2,2	Y	Y		*2,400.	*9,020.		0.17ug**	10.7ug**	
TETRACHLOROETHANES	Y	N	*9,320.						
TETRACHLOROETHYLENE	Y	Y	*5,260.	*840.	*10,200.	*450.	0.8ng**	8.8ng**	
TETRACHLOROPHENOL 2,3,5,6	Y	N				*440.			
THALFUR	Y	N	*1,400.	*40.	*2,130.		13.ug	48.ug	
THALFUR	Y	N	*17,500.		*6,300.	*5,000.	14.3mg	424.ug	
TOXAPHENE	Y	Y	0.73	0.0002	0.21	0.0002	0.71ng**	0.73ng**	0.0005mg
TRICHLORINATED ETANES	Y	Y	*10,000.						
TRICHLOROETHANE 1,1,1	Y	N			*31,200.		18.4mg	1.01g	
TRICHLOROETHANE 1,1,2	Y	Y		*9,400.			0.6ng**	41.8ng**	
TRICHLOROETHYLENE	Y	Y	*45,000.	*21,900.	*2,000.		2.7ng**	85.7ng**	
TRICHLOROPHENOL 2,4,5	N	N					2,600.ug		
TRICHLOROPHENOL 2,4,6	Y	Y		*970.			1.2ng**	3.0ng**	
VINYL CHLORIDE	Y	Y					2.0ug**	345.ug**	
ZINC	Y	N	120.1	110+	95	85			

CHAPTER 340, DIVISION 41 - DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON ADMINISTRATIVE RULES

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 41 - DEPARTMENT OF ENVIRONMENTAL QUALITY

TABLE 20
WATER QUALITY CRITERIA SUMMARY (continued)

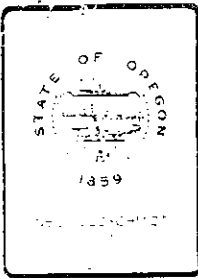
<p>g = grams mg = milligrams ug = micrograms ng = nanograms f = fibers</p>	<p>Y = YES N = NO</p> <p>H.C.L. = MAXIMUM CONCENTRATION LEVEL</p>	<p>† = Hardness Dependent Criteria (100 mg/L used) * = Insufficient Data to Develop Criteria ** = Value Presented in the L.O.E.L. -- Lowest Observed Effect Level *** = Human Health Criteria for Carcinogens Reported for Three Risk Levels. Value Presented in the 10-6 Risk Level which means the probability of one cancer case per one million people at the stated concentration **** = pH Dependent Criteria (7.8 pH used) †† = Values in Table 20 are applicable to all basins as follows</p>	<table border="0"> <thead> <tr> <th style="text-align: left;"><u>Basin</u></th> <th style="text-align: left;"><u>Rule</u></th> </tr> </thead> <tbody> <tr><td>North Coast</td><td>340-41-205(p)</td></tr> <tr><td>Mid Coast</td><td>340-41-245(p)</td></tr> <tr><td>Umpqua</td><td>340-41-285(p)</td></tr> <tr><td>South Coast</td><td>340-41-325(p)</td></tr> <tr><td>Bayou</td><td>340-41-365(p)</td></tr> <tr><td>Willamette</td><td>340-41-445(p)</td></tr> <tr><td>Sandy</td><td>340-41-485(p)</td></tr> <tr><td>Wood</td><td>340-41-525(p)</td></tr> <tr><td>Deschutes</td><td>340-41-565(p)</td></tr> <tr><td>John Day</td><td>340-41-605(p)</td></tr> <tr><td>Umatilla</td><td>340-41-645(p)</td></tr> <tr><td>Walla Walla</td><td>340-41-685(p)</td></tr> <tr><td>Grande Ronde</td><td>340-41-725(p)</td></tr> <tr><td>Podar</td><td>340-41-765(p)</td></tr> <tr><td>Halheur River</td><td>340-41-805(p)</td></tr> <tr><td>Oyake</td><td>340-41-845(p)</td></tr> <tr><td>Halheur Lake</td><td>340-41-885(p)</td></tr> <tr><td>Gosse and Sumner Lakes</td><td>340-41-925(p)</td></tr> <tr><td>Klamath</td><td>340-41-965(p)</td></tr> </tbody> </table>	<u>Basin</u>	<u>Rule</u>	North Coast	340-41-205(p)	Mid Coast	340-41-245(p)	Umpqua	340-41-285(p)	South Coast	340-41-325(p)	Bayou	340-41-365(p)	Willamette	340-41-445(p)	Sandy	340-41-485(p)	Wood	340-41-525(p)	Deschutes	340-41-565(p)	John Day	340-41-605(p)	Umatilla	340-41-645(p)	Walla Walla	340-41-685(p)	Grande Ronde	340-41-725(p)	Podar	340-41-765(p)	Halheur River	340-41-805(p)	Oyake	340-41-845(p)	Halheur Lake	340-41-885(p)	Gosse and Sumner Lakes	340-41-925(p)	Klamath	340-41-965(p)
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Water and Fish Ingestion

Values represent the maximum ambient water concentration for consumption of both contaminated water and fish or other aquatic organisms.

Fish Ingestion

Values represent the maximum ambient water concentration for consumption of fish or other aquatic organisms.



Environmental Quality Commission

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

REQUEST FOR EQC ACTION

Meeting Date: November 2, 1990
Agenda Item: D
Division: Water Quality
Section: Standards & Assessmnt

SUBJECT:

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

PURPOSE:

Every three years the Department reviews water quality standards, in fulfillment of the requirements of the Clean Water Act, to determine if revisions are needed to current rules to more fully protect water quality and beneficial uses. After reviewing the most recent scientific information and Environmental Protection Agency (EPA) criteria and policies related to water quality, the Department of Environmental Quality (Department) is proposing amendments to the Antidegradation Policy, definition of wetlands as waters of the state, dissolved oxygen, bacteria, toxics, mixing zones, turbidity and particulate matter, and biological criteria. The Department is also proposing changes in the definition section to support the proposed rule changes.

ACTION REQUESTED:

- Work Session Discussion
- General Program Background
- Potential Strategy, Policy, or Rules
- Agenda Item ___ for Current Meeting
- Other: (specify)

APPENDIX B

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WATER QUALITY DIVISION
DEPT. OF ENVIRONMENTAL QUALITY

<input checked="" type="checkbox"/> Authorize Rulemaking Hearing	
<input type="checkbox"/> Adopt Rules	
Proposed Rules	Attachment <u>A</u>
Rulemaking Statements	Attachment <u>B</u>
Fiscal and Economic Impact Statement	Attachment <u>C</u>
Public Notice for Hearings	Attachment <u>D</u>
Issue Papers	Attachment <u>E</u>
Public Notice Chronology	Attachment <u>F</u>
<input type="checkbox"/> Issue a Contested Case Order	
<input type="checkbox"/> Approve a Stipulated Order	
<input type="checkbox"/> Enter an Order	
Proposed Order	Attachment <u> </u>
<input type="checkbox"/> Approve Department Recommendation	
Variance Request	Attachment <u> </u>
Exception to Rule	Attachment <u> </u>
Informational Report	Attachment <u> </u>
Other: (specify)	Attachment <u> </u>

DESCRIPTION OF REQUESTED ACTION:

The current water quality standards described in Oregon Administrative Rules Chapter 340, Division 41, were reviewed by the Department and the public during December 1989 through March 1990 (See Attachment F). Based on comments from the public, staff, and EPA as to which water quality standards may need revision, the Department identified fourteen issues, related to either existing or new rules, and prepared water quality standards issue papers to discuss possible rule revision concepts. The fourteen issue papers include: 1) Definition of wetlands as Waters of the State; 2) Antidegradation Policy; 3) Dissolved Oxygen; 4) Temperature; 5) Bacteria; 6) Total Dissolved Solids; 7) Toxic Pollutants; 8) Toxic Equivalency Factors; 9) 2,3,7,8-TCDD; 10) Mixing Zones; 11) Sediment Quality Criteria; 12) Interim Sediment Quality Guidelines; 13) Biological Criteria; and 14) Turbidity and Particulate Matter.

The water quality issue papers were sent to the Commission and made available for public review and comment from May 11 through June 29, 1990. In addition, four workshops were held in Portland, Salem, Eugene and Bend, and several special presentations to organizations were made, to discuss the issue papers and solicit public comment and ideas for possible revisions to the existing rule language.

The Department considered the written and oral public comments and is proposing rule amendments for the following: Definition of Waters of the State, Antidegradation Policy, Dissolved Oxygen, Bacteria, Toxic Substances, Mixing Zones, Particulate Matter and Turbidity, and Biological Criteria. The Department will not propose any changes to the 2,3,7,8-TCDD standard adopted in 1987 because information to justify a change was insufficient.

The Department is postponing development of rules for Toxicity Equivalency Factors, Sediment Quality Standards, Interim Sediment Quality Guidelines, Temperature, and Total Dissolved Solids until further work can be done to define the needed changes. Many of the public comments emphasized the prematurity of developing rule language for these, and requested more opportunity to work with the Department in development of proposed language for these rules. The Department will appoint a technical water quality standards advisory committee with representatives from several scientific disciplines to begin compiling background information and evaluating potential changes. Copies of the issue papers, the public comments and the Department's response are included in Attachment E.

The proposed rule language presented in Attachment A clarifies definitions and policies, and incorporates consideration of natural variations of water quality as well as the most recent EPA criteria for toxic substances. A summary of the need for rule revisions and the issues involved in the proposed revisions follows:

1. Waters of the State: The current definition for waters of the state includes lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, estuaries, marshes, inlets, etc. The term "marshes" intended to represent all forms of wetlands. Technically, however, marshes refers to a specific type of wetland. The Department is proposing to add "wetlands" to be more inclusive about protection for all types of marsh and wetlands. In addition, the Department is proposing to adopt the definitions of "wetlands" in the definition section as defined by Senate Bill 3, Wetlands Protection Act of 1989 to assure consistency with state wetland management programs. This rule revision does not change the Department's regulatory authority for wetlands.

2. Antidegradation Policy: The Antidegradation Policy describes the conditions under which water quality may be lowered and when it must be maintained or enhanced. The Antidegradation Policy is designed to ensure that the chemical, physical and ecological values of water are fully evaluated; any economic growth and development that will lower water quality is necessary and important, all reasonable alternatives to degradation have been exhausted, and the public has been given an opportunity to comment on actions that may degrade water quality.

The current antidegradation policy rule is not consistent with the federal antidegradation policy and must be revised to incorporate protection for all waters of the state, not just high quality waters as the current rule describes, and to add an Outstanding Resource Waters category to protect waters with exceptional water quality values. The Department is proposing to revise the policy to incorporate the EPA requested changes, criteria for the Commission to follow for lowering water quality, and to establish an Outstanding Resource Waters category. The Department also identifies an implementation plan for the antidegradation policy to meet the federal policy requirements.

3. Dissolved Oxygen: Dissolved oxygen must be high enough to support fisheries and aquatic life, both coldwater and warmwater species. The current freshwater standards specify minimum dissolved oxygen levels to protect salmonid and other coldwater fisheries, including higher dissolved oxygen requirements for spawning areas during the spawning season, and minimum levels to protect nonsalmonid (warmwater) fish and aquatic life.

The current standards for most waters of the state are expressed in terms of a minimum percent saturation of dissolved oxygen. Because temperature and elevation determine the amount of oxygen which is soluble in water at 100 percent saturation, the percent saturation standard actually may be higher (unduly restrictive) or lower (not adequately protective) than concentration values which reflect acceptable long term and short term exposure concentrations. Thus changes are proposed to express all dissolved oxygen standards in terms of concentration and to specify both average and minima values which will assure full protection of the uses.

Additionally, language would be added to the standard that states where natural environmental conditions (such as water temperature and elevation) alone would limit dissolved oxygen concentrations to less than 110 percent of the applicable numerical value, 90 percent of the natural dissolved oxygen concentration would be the standard. This additional language provides that either the numerical concentration limit or 90 percent of the natural concentration, whichever is lower, is the standard. This language for dissolved oxygen would supersede existing rule language which makes the natural quality the standard where it is outside the numerical limits. Also, some streams and segments with the same designated beneficial uses currently have different standards (eg. 5 mg/l or 6 mg/l where the most sensitive uses with respect to dissolved oxygen requirements are salmonid passage and rearing). The proposed rules would establish the same dissolved oxygen numerical values for the same designated use, resulting in a higher numerical standard for some stream segments and a lower standard for others.

The Department has prepared two alternate dissolved oxygen standards proposals for public comment. Both options propose dissolved oxygen concentration values based on U.S. EPA criteria for "no production impairment" at constant exposure levels. The options differ, however, in the values proposed as 1-day minima. For some uses, Option 2 proposes higher instantaneous minima to provide better assurance that even with limited monitoring data, uses will be protected. Also under Option 2, dissolved oxygen values proposed for waters designated solely as warmwater fisheries do not differentiate between spawning areas and seasons, and non-spawning areas and seasons. Option 2 proposes to establish a 5.5 mg/l instantaneous 1-day minima for all nonsalmonid waters throughout the year. A 7-day average of 6.5 mg/l also would apply throughout the year where warmwater fish/aquatic life are the most sensitive uses. The dissolved oxygen standard for the mainstem Klamath from Klamath Lake to Keno Dam would increase from a 1-day minima of 5.0 mg/l to 5.5 mg/l.

4. Bacteria: Bacteriological indicator organisms are used for monitoring water quality and pollution levels, and for evaluating the human health risks associated with contact recreation or shellfish consumption. Fecal coliform bacteria have been used as an indicator organisms to determine human health risks from exposure to pathogens. The current rule states that the log mean of 200 fecal coliform per 100 milliliters cannot be exceeded to protect for contact

recreation, and 14 organisms per 100 milliliters to protect for consumption of shellfish. Many tests have been conducted by the Department as well as other states to compare fecal coliform and Enterococcus data and determine if fecal coliform is the best indicator organism. Studies have shown that Enterococcus provides a more rigorous test and a better indication of human health risk for water contact recreation. The Department is proposing to substitute Enterococcus as the indicator organism for water contact recreation to better protect against illness.

However, the Department will retain fecal coliform for consumption of shellfish since adequate studies to determine whether Enterococcus or fecal coliform are better indicator organisms for consumption have not yet been completed. The Food and Drug Administration and the Interstate Shellfish Sanitation Conference have the authority to change the fecal coliform standard for commercial shellfish growing areas after the indicator studies are completed.

5. Toxic Pollutants: Control of toxic pollutants is critical for the protection of all beneficial uses. The current standards include both numeric and narrative limits for the control of priority pollutants and complex mixtures of toxic substances. The numeric values are listed in Table 20 of the water quality standards regulations. EPA has adopted new criteria for aluminum, chloride and ammonia. The Department is proposing to amend Table 20 to include new limits for aluminum, chloride and ammonia. The Department is also proposing to add a standard for 2,3,7,8-TCDD to protect aquatic life from acute and chronic toxicity. In addition, the Department is revising the narrative part of the toxics rule to include protection from toxics that may accumulate in sediments or bioaccumulate in aquatic life, and to include reference to wildlife protection. Finally, the Department is proposing to include the use level of contaminants in fish tissue as an indication of water quality standards violations. Table 21 describes the levels of toxics not to be exceeded in fish tissues.

8. Mixing Zones: Mixing zones are designated areas that are used for wastewater and receiving waters to mix. Water quality standards may be suspended in this area, but must be met at the edge of the mixing zone. Acute toxicity may not occur within the mixing zone, and chronic toxicity is prohibited outside the mixing zone. The current rule describes the conditions that must be met within and outside the mixing zone. It specifies the duration of acute toxicity tests, that are not necessarily applicable given the new test

methodologies that have been developed in the last several years since the current rule was adopted. Under some conditions, the requirement for "no acute toxicity within the mixing zone" cannot be met at the end of the pipe, (due to chlorine) but can be met after initial rapid mixing with receiving waters a short distance from the discharge point within a mixing zone. The Department is proposing to designate a zone of immediate dilution, to delete reference to a specific testing period needed in order to have flexibility with the types of applicable tests to be used, and to add the use of 100% effluent for acute toxicity testing requirements.

7. Biological Criteria: Water quality standards are set to protect beneficial uses such as fish and aquatic life, and wildlife. However, the rules do not specifically address protection of indigenous aquatic life communities and ecological integrity. The Department is proposing to add a narrative standard that specifically protects indigenous aquatic life species and health of the resident biological community. Biological criteria are useful because they help identify impairment of beneficial uses and directly measure the conditions of the resource at risk and detect problems that other methods miss. The Department will also be defining biological terms.

8. Particulate Matter and Turbidity: Particulate matter may affect aquatic life if present in high concentrations. Parameters used to measure particulates are turbidity, total suspended solids, settleable solids, and percent accumulated fines. The current rule measures turbidity in Jackson Turbidity Units. These units are not being used any longer and have been replaced with Nephelometric Turbidity Units. The Department is not proposing to change the standard but rather is proposing to use a more sensitive measurement to change from Jackson Turbidity Units to Nephelometric Turbidity Units. The remainder of the existing rule remains as written.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: _____	Attachment ___
Enactment Date: _____	
___ Statutory Authority: _____	Attachment ___
___ Pursuant to Rule: _____	Attachment ___
___ Pursuant to Federal Law/Rule: _____	Attachment ___
___ Other: _____	Attachment ___

Meeting Date: November 2, 1990
Agenda Item: D
Page 8

- Time Constraints: The Department must complete its triennial water quality standards review in early 1991 to meet commitments made in the State/EPA Agreement.

DEVELOPMENTAL BACKGROUND:

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

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

Any entity that discharges wastewater to waters of the state, or conducts activities that may add pollutants, particulates, or change the character of the water may be affected by the proposed rules, particularly if they are located upstream of a designated "Outstanding Resource Water", as described in the Antidegradation Policy. The most significant impact may be on wastewater treatment plants that will need to add an Enterococcus testing procedure. Additionally, based on the Department's analytical data of sewage treatment plant effluents, some municipalities may have to upgrade their effluent disinfection systems to ensure water quality standards are met.

PROGRAM CONSIDERATIONS:

Some of the current rules are not consistent with recent EPA policies and criteria, do not fully protect all of the most sensitive beneficial uses, or do not account for natural diurnal or seasonal variations in water quality parameters. The current standards are established to protect beneficial uses and used as the basis for establishing permit limits. Without statistical tests that take into consideration the natural variability of water quality, one sample taken that would violate water quality standards or a permit limit, may subject wastewater discharge facilities to warnings or possible penalties. One violation may not affect a beneficial use. Using statistically-based standards, and sampling methodology in certain cases, should provide a better indicator of beneficial use protection.

The Antidegradation Policy is intended to protect existing water quality in all waters of the state, and to establish guidelines for how decisions to lower water quality, or establish additional protection for waters are to be made. Any activities or decisions made that affect water quality are subject to the provisions of the Antidegradation Policy. This policy identifies the criteria for the Commission to consider in making determinations that may significantly affect water quality.

The proposed rules are intended to provide better definitions and a clearer technical basis for some of the water quality standards.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Maintain the existing rules.
2. Propose rule amendments to the following, based on public comments on the water quality issue papers at the public workshops: Wetlands as Waters of the State, Antidegradation, Dissolved Oxygen, Bacteria, Mixing Zones, Toxic Pollutants, Biological Criteria, and Particulate Matter and Turbidity. The proposed rule amendments would clarify the definition of waters of the state, establish a category of protection for outstanding resource waters, use a statistical approach to evaluating water quality variations for dissolved oxygen, and incorporate the newest criteria for toxic substances into the water quality standards.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission authorize the Department to conduct public rulemaking hearings on the eight proposed rule amendments for OAR 340-41. The proposed rules would assist the Department with more fully protecting beneficial uses and maintaining the essential, unique character of many of Oregon's waterbodies.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The proposed rules are consistent with the strategic plan, agency policy and legislative policy since they were developed to more fully protect beneficial uses.

ISSUES FOR COMMISSION TO RESOLVE:

1. Antidegradation: Should all Wild and Scenic Rivers, State Scenic Waterways, Wildlife Refuges, State Parks, and National Parks be automatically designated as Outstanding Resource Waters for special water quality protection? Or should applicants file for outstanding resource waters status for waterbodies with exceptional water quality values?
2. Bacteria: Should the Department have two separate indicator organisms, Enterococcus for public recreation protection, and fecal coliform for shellfish consumption in estuarine areas, requiring that both organisms be used and tested routinely in areas where both shellfish and recreational uses occur?
3. Toxic Pollutants: Should contaminant levels in fish tissue serve as indicators of water quality standards violations or should exceeding contaminant levels in fish tissue be a violation of the water quality standards?
4. Dissolved Oxygen: Two options for dissolved oxygen standards have been prepared. Both options would decrease the dissolved oxygen standard for some waters and increase it for a few other stream segments. The revisions under both options also propose standards as concentration limits instead of percent saturation; include 30 day, 7 day means or mean minima, and 1-day (instaneous) limits; and establish 90 percent of the natural dissolved oxygen concentration as the standard when natural environmental conditions alone limit concentrations to less than 110 percent of the applicable numerical standard. Under both options, the waters designated the same sensitive uses would have the same numerical standards. This corrects anomalies in the current standards where different numerical values apply to stream segments with the same most sensitive use.

Should both options for Dissolved Oxygen standards be taken to hearing? Both options specify numerical averages based on U.S. EPA criteria for "no production impairment" at constant exposure levels and vary primarily in the values proposed as 1-day minima. Should the Department instead propose standards which do not provide for this level of beneficial use protection (eg. values based on EPA's criteria for slight, moderate or severe production impairment at constant exposure levels?)

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INTENDED FOLLOWUP ACTIONS:

Hold public hearings, evaluate public testimony, and propose final action on the proposed rules.

Approved:

Section: Phil Mullane
Division: _____
Director: _____

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Date Prepared: September 4, 1990

(KUW:crw)
(SW\WC7069)
(October 25, 1990)

STATEMENT OF THE NEED FOR RULEMAKING

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

1. Legal Authority

ORS 468.735 provides the Commission by rule may establish standards of quality and purity for waters of the state in accordance with public policy set forth in ORS 468.710. ORS 183.545 requires a review every three years of state agency administrative rules to minimize the economic effect these rules may have on businesses. ORS 193.550 requires, among other factors, that public comments be considered in the review and evaluation of these rules.

2. Need for Rules

The Department reviews the water quality rules in Oregon Administrative Rules (OAR) Chapter 340 Division 41 every three years to incorporate the newest scientific information available and assure that water quality policies and standards are fully protecting beneficial uses. The Department requested public review of the water quality rules to determine if the public was concerned about particular rules and solicited suggestions as to which rules should be considered for revision. Based on public comments and staff review, the Department prepared fourteen issue papers discussing concerns with the rules and proposed rule concepts. Further public comment on the issue papers narrowed the water quality revisions to eight rules. The proposed rules will assist in clarifying certain rules, and provide consistency between state and federal policies, where needed.

3. Principal Documents Relied Upon in this Rulemaking

Oregon Administrative Rules Chapter 340 Division 41

The Clean Water Act and 1987 Amendments

Federal Register, Volume 48, No. 217, November 8, 1983, Water Quality Standards Regulation

Federal Register, Volume 45, No. 231, November 28, 1980, Water Quality Criteria Documents; Availability

Federal Register, Volume 50, No. 145, July 29, 1985, Water
Quality Criteria, Availability of Documents

Water Quality Standards Handbook, December 1983

Introduction to Water Quality Standards, September 1988

EPA Quality Criteria for Water, 1986, and Supplements

Technical Support Document for Water Quality Based Toxics
Control, September 1985 and revised April 1990

ORS 468.735, 468.710, 183.545, and 183.550

ISSUE PAPER # 9
2,3,7,8-TCDD
Revised as of 10/22/90

I. INTRODUCTION

2,3,7,8-Tetrachlorodibenzo-para-dioxin (TCDD) is one of seventy-five (75) congeners in a group of chlorinated compounds commonly called dioxins (USEPA, 1987). The Environmental Quality Commission in 1987 adopted a numerical in-stream water quality standard for TCDD of 0.013 picograms per liter (pg/l) (OAR 340-41 Table 20). This standard was adopted from the USEPA water quality criteria developed for TCDD (USEPA, 1984). This issue paper was developed to evaluate the state's water quality standard for TCDD.

Areas discussed in this paper were TCDD physical and chemical characteristics, fate and transport in the environment, TCDD toxicity, the water quality standard, factors used for water quality standard development, the related issues of toxicity of other dioxin and furan isomers (Toxicity Equivalency Concentration / Toxicity Equivalency Factors), and Department recommendations.

II. CURRENT RULE

TCDD Water Quality Standard OAR 340-41 Table 20

<u>Compound</u>	<u>Water and Fish Ingestion</u>	<u>Fish Consumption Only</u>
Dioxin (2,3,7,8-TCDD)	0.013 pg/l	0.014 pg/l

Water and Fish Ingestion = Values represent the maximum ambient water concentration for consumption of both contaminated water and fish or other aquatic life.

Fish Ingestion Only = Values represent the maximum ambient water concentration for consumption of fish or other aquatic organisms.

III. CONCERNS WITH THE CURRENT RULE

Several concerns have been raised with the TCDD water quality standard by the public. Some of these concerns were:

1. The cancer potency factor is too low. That is, 2,3,7,8-TCDD is not as potent a carcinogen as the USEPA has calculated.

2. The bioconcentration factor is not high enough. That 2,3,7,8-TCDD bioaccumulates to a higher degree than the USEPA has calculated in the water quality criteria.
3. The fish ingestion rate is not representative of fish consumption by some groups of people.

TCDD Chemical Structure

Dioxin is a term commonly used for the family of chlorodibenzo - para-dioxins (CDD).. TCDD is one of seventy-five (75) different congeners of CDD's and is one of 22 different isomers of tetrachloro dibenzo-para-dioxin. Throughout this text TCDD will be specific for 2,3,7,8-TCDD. A group of compounds closely related to dioxins are chlorodibenzofurans of which there are 135 different congeners (USEPA, 1987). In this text chlorodibenzo furans will be referred to as furans.

Dioxins and furans are composed of carbon, hydrogen, chlorine, and oxygen. The chemical structure for dioxins is two benzene rings connected by two oxygen atoms (USEPA, 1987). Congeners of dioxin can have one to eight chlorine atoms attached to the benzene rings. The number and position of the chlorine atoms distinguish the congeners. The chemical formula for TCDD is $C_{12}H_4Cl_4O_2$ with the chlorine atoms attached to the two, three, seven, and eight positions around the benzene rings. The chemical structure for furans are similar to dioxins except furans have one less oxygen.

TCDD Physical & Chemical Properties

The congeners of dioxins exhibit similar physical and chemical properties. Generally, dioxins are hydrophobic, lipophilic, low volatility, resistant to thermal destruction, biologically stable, and susceptible to photolysis.

TCDD specific physical and chemical properties are as follows.

Hydrophobic -- slight solubility in water

Water Solubility
(ppt = ng/l)

19.3 ± 3.7 @ 22°C
7.91 ± 2.7 @ 25°C

Miller (1987)
Schroy et al.
(1985)

Lipophilic -- moderate solubility in non-polar solvents

Octanol/Water partition
coefficient ($\times 10^6$)

6.9 \pm 1.6 @ 25 °C USEPA (1988)

10.5 \pm 1.1 @ 25 °C USEPA (1988)

14.5 \pm 1.6 @ 25 °C USEPA (1988)

Benzene Solubility
(ppt = ng/l)

5.7 $\times 10^8$ Miller (1987)

Volatility -- low volatility into the air

Vapor Pressure
($\times 10^{-9}$ mm Hg)

3.49 \pm 0.55 @ 30.1°C Schroy et al.
(1985)

1.52 @ 25 °C Schroy et al.
(1985)

0.74 \pm 0.04 @ 25 °C USEPA (1988)

Thermal Destruction -- resistant to thermal destruction

Decomposition Temperature

700 °C Miller (1987)

Biologic Stability -- resistance to biological transformation
(USEPA, 1985)

Photolysis -- decomposition with exposure to uv radiation (USEPA,
1987).

TCDD Fate & Transport

The physical and chemical properties of TCDD would determine fate and transport in the aquatic environment. TCDD behavior in the aquatic environment is expected to be adsorption to dissolved and suspended solid particles, particularly organic matter (USEPA, 1987). TCDD would also be available for uptake and bioaccumulation in biological systems (Muir, 1989; Batterman et al., Kuehl et al., 1987; Mehrle et al., 1988; Cook, 1987). TCDD in the aquatic environment is expected to break down very slowly (USEPA, 1985, 1987).

Transport of TCDD in an aquatic system would be expected to be with the movement of solids particles and biological systems following uptake (Mackay et al., 1982, 1985; Rappe, 1987; Kenaga, 1980; Crunkilton, 1987).

Toxicological Effects

Most of the information on toxic effects of TCDD to humans have come from epidemiological investigation of worker exposure studies, exposure from industrial accidents, and exposure from disposal practices (USEPA, 1985, 1988a, 1988b; Pollock, 1989). The most common effect reported was chloracne which is a skin lesion that resembles acne and may persist for several years (Pollock, 1989). Other reported effects were nausea, liver damage, weight loss, fatigue, and neurological symptoms (Huff et al., 1980). Long term human health effects have not been adequately studied (Pollock, 1989).

TCDD has been identified as being very toxic to a number of mammalian species (Table 1) (Kociba, 1982). Toxic responses have been observed through oral and injection methods of exposure for mammalian species and oral and water column methods of exposure for aquatic species. Toxic responses which have been reported in the literature are carcinogenesis, teratogenesis, immunological, and reproductive. Toxic responses have been exhibited at acute and chronic exposure.

TCDD has been identified as toxic to birds (Eisler, 1986). Toxic effects include reproductive, behavioral, and lethality (Eisler, 1986; Hart, 1989; Kubiak, 1989). Studies have been performed investigating TCDD effects on Great Blue Herons and Forster's Tern with studies in progress on Peregrine Falcons (Hart, 1989; Moul, 1989; Kubiak, 1989; Pagel, 1989 pers. comm.).

TCDD has been identified to be acutely and chronically toxic to aquatic life (USEPA, 1985). Acute toxicity LC₅₀ values range from 1.0 ppt for Guppies to 5.6 ppt for Coho Salmon. Chronic toxicity has been investigated in rainbow trout with a LOAEL observed at 3.8 ppt (Mehrlle, 1989).

Carcinogenesis Mammalian

Carcinogenesis is the development of a malignant tumor or growth. TCDD has caused increased incidence of cancer in liver, pharynx, skin, lung, and thyroid tissues of rats and mice (Kociba et al., 1978; NTP, 1982a & 1982b; Eisler 1986). The development of cancer, in mammals, has been identified as the most sensitive response to TCDD exposure. The Kociba Study (Kociba, 1978) has been used in the water quality standard to estimate the carcinogenic human health risk for exposure to TCDD (USEPA, 1985).

Epidemiological studies have been used to study the human carcinogenic response to TCDD exposure. These studies have been performed on workers exposed to TCDD during the manufacture or application of herbicides, workers and people at industrial accident sites, and people at areas contaminated by TCDD from improper disposal practices (USEPA, 1985; 1988a; Pollock, 1989). The results of the epidemiological studies are conflicting as to whether TCDD exposure causes cancer in humans (USEPA, 1988b)

Hexachlorinated dibenzo-p-dioxins (HxCDD) mixtures have caused an increased incidence of liver tumors in rats and mice (NTP, 1980). Long-term whole animal carcinogenic studies have not been performed on all PCDD and PCDF congeners. PCDD and PCDF congeners with chlorine atoms attached at the 2,3,7, and 8 positions are considered potential human carcinogens. This was based on

Table 1

LD₅₀ Values for Animals Exposed to TCDD

<u>Animal</u>	<u>LD₅₀</u> <u>(ug/kg body weight)</u>
Guinea Pig	1
Rat - Male	22
Rat - Female	45
Monkey	<70
Mouse	114
Rabbit	115
Dog	>300
Hamster	5,000

TCDD LD₅₀ is the dose of TCDD which causes mortality in 50% of the animals exposed. Generally, delayed mortality occurred on the order of two to eight weeks (Connell et al., 1984).

similarity of chemical structure and mechanistic response to TCDD and HxCDD (NATO, 1988; USEPA, 1989b). Additional information on this subject is contained in the Department's issue paper on Toxicity Equivalency Concentrations for PCDD's and PCDF's.

Teratogenesis Mammalian

Teratogenesis is the development of abnormal tissues in an embryo. TCDD has caused increased incidence of cystic kidney, cleft palate, and spinal column deformities in fetuses of rats (Eisler, 1986).

Immunological Mammalian

Immunological effects are suppression of immune system function. TCDD has caused immunological effects of thymic atrophy, depressed bone marrow function, reduced host resistance, and suppression of both humoral and cell mediated immunity (Pollock, 1989; USEPA, 1985).

Reproduction Mammalian

Reproductive effects are those that cause a reduction in the number of young born. Several epidemiological studies have been performed on human reproductive effects from exposure to TCDD. These studies were performed on populations exposed to TCDD from industrial accidents, work related activities, herbicidal spraying, and disposal practices (USEPA, 1985, 1989a; Pollock, 1989). Some of the studies reviewed indicated an increase in miscarriages following an industrial accident in Seveso Italy while a study of children of soldiers exposed to 2,4,5-T indicated a higher rate of malformations (Pollock, 1989). Other studies were unable to establish an association between TCDD exposure and human reproductive effects (Pollock, 1989).

Cause and effect relationships from environmental exposures of TCDD are difficult to establish from epidemiological studies due to difficulty in quantifying exposure and categorization of exposed individuals (Pollock, 1989). Factors affecting reliability of epidemiological studies are difficult to control and may affect the results of studies. Because of these factors the studies can not be used to state a no adverse effect to reproduction due to TCDD (Pollock, 1989).

Laboratory animal studies have shown adverse effects to reproduction due to TCDD exposure. Rats and nonhuman primates have been the most sensitive species studied to date (USEPA, 1985; Pollock, 1989). Rats have exhibited impaired reproduction due to a decrease in litter size, gestational survival, neonatal survival, growth, and fertility (Murray, 1979). Pregnant Rhesus monkeys exposed to TCDD had increased incidences of abortions, stillbirths, and a decrease in rate of conceptions (Allen, 1979; Schantz et al., 1979).

Avian Toxic Effects

TCDD single oral doses of 15 ug/kg, >108 ug/kg, and 810 ug/kg have caused acute toxicity, calculated as an LD₅₀, in Northern bobwhite quail, mallards, and ringed turtle-doves, respectively (Eisler, 1986).

TCDD exposure has been proposed as a cause for increased nesting failure of Great Blue Herons in a study in Canada (Moul, 1989). Subcutaneous edema and distended abdomens were observed in Great Blue Heron chicks hatched from eggs collected near a known source of TCDD (Hart, 1989). Reproductive success was reduced for Forster's Tern nesting in areas that had elevated concentrations of organochlorines, including TCDD (Kubiak, 1989).

TCDD had not been identified to have the same bioaccumulative characteristics in birds as other organochlorines such as DDT and PCBs (Eisler, 1986). However, more recent information indicates that TCDD does bioaccumulate to some degree in birds (Paasivirta, 1987; Van den Berg, 1987). The New York State Department of Environmental Conservation has estimated the concentration of TCDD in fish which could be detrimental to populations of fish eating birds. This concentration is two to three parts per trillion (Newell et al., 1987).

Aquatic Life Toxic Effects

Acute toxicity is defined as an adverse effect from a short term exposure. The adverse effect could be mortality, growth, or reproduction and would be exhibited shortly after exposure. The period of exposure is usually 96 hours or less.

Acute exposures of TCDD has caused growth retardation in northern pike and growth retardation and edema in rainbow trout (Table 2) (Eisler, 1986).

Table 2

Acute Toxicity from TCDD Exposure (Eisler, 1986)

<u>Species</u>	<u>Conc. (ppt)</u>	<u>Duration of Exposure</u>	<u>Effects</u>
Northern Pike	0.1	96 hrs	Reduced growth
Rainbow Trout	10	96 hrs	Reduced Growth, edema

Conc. (ppt) = the concentration in parts per trillion of TCDD in the ambient medium at start of test.

Generally, chronic toxicity is defined as an adverse effect caused from a long term exposure. The length of exposure would be

greater than 96 hours. Chronic exposures to TCDD have caused mortality, growth reduction, and behavioral changes in rainbow trout as well as mortality of Guppies, Coho Salmon, and channel catfish (Mehrlle, 1988; Eisler, 1986).

Table 3

Chronic Toxicity to TCDD Exposure (Eisler, 1986)

<u>Species</u>	<u>Conc. (ppt)</u>	<u>Duration of Exposure</u>	<u>Effects</u>
Rainbow Trout	0.038	28 days	46% mortality at day 56, reduced growth, behavior impairment
Rainbow Trout	0.1	96 hrs	Reduced growth at day 72
Rainbow Trout	10	96 hrs	26% mortality at day 72
Guppies	1.0	24 hrs	50% mortality at day 42
Coho Salmon	0.56	48 hrs	12% mortality at day 60
Coho Salmon	5.6	96 hrs	50% mortality at day 60
Channel Catfish	4.2	20 days	100% mortality at day 15 - 20

Other effects included reduced resistance to fungal infestations, fin erosion, and degeneration of the liver (Eisler, 1986).

Mammalian Dose Response Relationship

Dose response relationship is a quantitative estimate of the amount and frequency of a substance which causes a response (USEPA, 1989a). A summary of the dosages and responses from TCDD have been summarized.

Carcinogenic Responses Mammalian

Laboratory studies with animals has identified cancer to be the most sensitive response (the response occurring at the lowest dose) to TCDD exposure (USEPA, 1985). Carcinogenic responses from TCDD exposure have been observed in rats, mice, and hamsters (USEPA, 1985; Sambasiva, 1988). The dosage causing cancer in animals varies depending on the species (Table 4).

USEPA reviewed several epidemiological studies prior to 1985 and concluded that the studies were suggestive of human carcinogenicity (USEPA, 1985). The review of the epidemiological studies was supportive of the carcinogenic laboratory animal studies (USEPA, 1985).

A subsequent review of epidemiological studies by USEPA, reported in a review draft report (USEPA, 1988a; 1988b), concluded that an association may exist between increased incidence of cancer and chemicals contaminated with TCDD. However, the data was determined to be inconclusive to support an association between an increased incidence of cancer and exposure only to TCDD (USEPA, 1988a).

The USEPA Science Advisory Board Ad Hoc Dioxin Advisory Panel (SAB) reviewed two USEPA documents. The documents reviewed were "A Cancer Risk-Specific Dose Estimate for 2,3,7,8-TCDD" and "Estimating Exposure to 2,3,7,8-TCDD". The SAB concluded that there was insufficient evidence from epidemiological studies to support an association of human carcinogenicity to TCDD exposure (USEPA, 1989a). The SAB noted that some of the epidemiological studies reviewed were inconclusive due to study design limitations.

Teratogenic Responses Mammalian

Teratogenic responses have been documented in laboratory studies using mice and rats (USEPA, 1985). Teratogenic responses from TCDD exposure in pregnant mice included cleft palate and kidney anomalies at doses of 0.5, 1.0, and 3.0 ug/kg/day (Courtney, 1971). Teratogenic responses by pregnant rats upon exposure to TCDD included kidney malformations and dilated renal pelvis at doses of 0.5 ug/kg/day and 0.001 ug/kg/day, respectively (Courtney, 1971; Murray et al., 1979). Cystic kidney, cleft palate, and spinal column deformities have been reported responses in fetuses of rats upon exposure to TCDD (Eisler, 1986).

Reproductive Responses Mammalian

Reduced reproductive success has been reported in mice, rats, and rhesus monkeys exposed to TCDD during pregnancy (USEPA, 1985). A Lowest Observed Adverse Effect Level (LOAEL) was re-evaluated by Nisbet and Paxton (1979) using information reported by Murray, 1979 (USEPA, 1985). The LOAEL was concluded to be 0.001 ug/kg/day (USEPA, 1985). There was an increase in aborted fetuses when pregnant rhesus monkeys were fed a diet of 50 parts per trillion TCDD (Schantz et al., 1979). The LOAEL for rhesus monkeys was 0.0015 ug/kg/day (USEPA, 1985).

Table 4

Animal Studies on Carcinogenicity (Kociba, 1983)

<u>TCDD Daily Dose</u> <u>(ug/kg/day)</u>	<u>Species / Strain</u>	<u>Response / Reference</u>
0.1	rat / SD	Hepatocellular carcinoma, squamous carcinoma of oropharynx and lung (Kociba et al., 1978)
0.07	rat / OM	Hepatocellular carcinoma, thyroid tumors (NTP, 1982)
0.01	rat / SD	Hepatocellular nodules (Kociba et al., 1978)
0.007	rat / OM	Questionable increase in thyroid tumors (NTP, 1982)
0.014	rat / OM	No increase in tumors (NTP, 1982)
0.001	rat / SD	No increase in tumors (Kociba et al., 1978)
0.3	mice / B6C3F1 F	Hepatocellular tumors, thyroid tumors (NTP, 1982)
0.1	mice / Swiss	Hepatocellular tumors (Toth et al., 1979)
0.07	mice / B6C3F1 M	Hepatocellular tumors (NTP, 1982)

0.03	mice / B6C3F1 F	No increase in tumors (NTP, 1982)
0.007	mice / B6C3F1 M	No increase in tumors (NTP, 1982)

Exposure Assessment

Potential routes for human exposure to TCDD include ingestion of contaminated soil, ingestion of contaminated fish and other food products, and inhalation of contaminated dust particles (USEPA, 1988a). The major route of exposure for the general population would be ingestion of contaminated fish (USEPA, 1985).

Estimates of dietary intake account for 82% to 98% of human body burden (USEPA, 1988a; Chemrisk, 1989). Food stuffs which would predominantly contribute to dietary intake of TCDD include fish, beef, dairy products, and vegetables (USEPA, 1988; Chemrisk, 1989).

The studies reviewed on plant uptake of TCDD were not in agreement, but studies with other halogenated hydrocarbons indicate a low potential for absorption by plants (USEPA, 1988a). The usual practice of washing crops consumed by humans further reduces the potential of TCDD exposure from contaminated attached soil particles.

Human exposure through beef and dairy products is another potential route (Chemrisk, 1989). Studies have been performed on the dietary intake of contaminated soil during feeding and the resulting contaminant levels in body fat and milk fat (Schaum, 1984 and Fries, 1985, 1986 cited in USEPA, 1988). Factors which would influence exposure were extent of soil or feed contamination, whether the cattle were fed to maturity outside of contaminated area prior to slaughter, type of activity within the industry, and slaughter categories and rates relative to national figures (USEPA, 1988a). Depending on these variables market dilution would vary considerably. The populations that would receive highest exposure would be beef producers and dairy farmers raising cattle on contaminated feed, and the direct consumers of their products (USEPA, 1988a). A source of soil or feed contamination would include uncontrolled hazardous waste sites with TCDD contamination that were located nearby (USEPA, 1988a).

The most significant exposure route for the general public was identified as ingestion of contaminated fish (USEPA, 1985). Fish ingestion was identified as a significant route of exposure due to fish exposure pathways, bioaccumulation potential of TCDD, and human consumption of contaminated fish.

TCDD residues have been identified in freshwater and saltwater fish and shellfish (USEPA, 1989a; Mah, 1989). The fish collected from waters of Oregon through the National Bioaccumulation Study were collected downstream of potential sources of TCDD. These sources were bleached kraft pulp mills, municipal sewage treatment plants, and superfund sites. Fish collected in the Canadian study were collected from areas predominantly affected by bleached kraft pulp mills. Human exposure and the associated risk would be dependent on the amount of contaminated fish consumed (USEPA, 1985, 1988a, 1989a).

The USEPA used a national average daily consumption rate of freshwater and estuarine fish and shellfish of 6.5 grams per day per capita for calculation of the TCDD water quality criteria (USEPA, 1985). This average was derived from a survey of freshwater and estuarine fish and shellfish consumption in the United States (USEPA, 1988a).

Recent surveys have been conducted by USDA and NMFS on the consumption of fish and shellfish (USEPA, 1988a). The USDA study was conducted in 1977 - 1978. Nationwide intake of fish and shellfish on a per capita basis was 12 g/d (USEPA, 1988a). Geographic differences ranged from 9 to 14 g/d. The NMFS study published in 1985 reported a total per capita fish and shellfish consumption rate of 16.9 g/d (U.S. Department of Commerce, 1985, cited in USEPA, 1988a).

A survey conducted by the USDA on food consumption for 1966 - 1987 included information estimated on fish and shellfish consumption for the United States (Putnam, 1989). Overall consumption of fishery products have steadily increased during the past two decades with fishery product consumption for 1987 increases of 45 percent and 21 percent for the years 1967 and 1977, respectively (Putnam, 1989). Analysis of the data indicated that fresh and frozen fish and shellfish consumption for 1987 was 12.4 g/d on a per capita basis. This estimate is based on disappearance from the store and calculated for raw edible portion. The estimate would not include consumption of sport caught fish.

Some estimates have been made of fish consumption by groups consuming greater than the national averages. These groups would include sport fisherman, ethnic groups, and native americans.

Consumption rates of fisherman from the Los Angeles area were calculated through an interview process (Puffer et al., 1983 cited in USEPA, 1988). The majority of fisherman consumed the fish they caught. The median value for consumption of fish was 37 g/d with a 90th percentile of 225 g/d.

The state of Wisconsin surveyed a portion of the sport fishing population for fish consumption habits (Wisconsin, 1987). The average number of fish meals consumed by sportfisherman was 41 with 18 fish meals being sport caught. An average fish meal would equal 114 grams (USEPA, 1989a). The number of grams per day of fish consumed by Wisconsin sportfisherman was 12.8. The consumption of sport caught fish would equal 5.6 g/d.

Race and religion influence fish consumption (USEPA, 1988a). The Market Facts Survey found that in the United States jewish and negro people consumed approximately twice the amount of fish than caucasian people (USEPA, 1988a). A similar study by the Tuna Research Institute found only a 13 percent increase in fish among blacks. Information from this study indicated that oriental populations consumed 47 percent more fish than caucasians. Native American populations residing along waterways have traditionally utilized fish in their diet.

A survey was performed in 1989 on potential fish consumption rates of salmon, steelhead, and sturgeon from the Columbia River by sportfisherman, Native Americans, and the general population (Beak, 1989). The survey was based on sport landings data, commercial harvest, estimates of fish retained in the area, and portions of fish used. Sportfisherman estimated consumption for the species surveyed ranged from 0.6 g/d to 23.4 g/d for 1988. Native American estimated consumption for the species surveyed was 16.4 g/d for 1988. General population estimate of consumption of the species surveyed was 1.05 g/d. The survey did not include ethnic consumption estimates or the consumption of resident species.

Many factors will influence the amount of fish consumed. Factors influencing fish consumption are age, race, religion, sport fishery availability, and economics. The most reliable method for estimating fish consumption patterns for an area is through direct survey similar to the Wisconsin study of fish consumption by sport fisherman. When reliable site specific data is unavailable the USEPA recommends using one of the following approaches (USEPA, 1989a).

- * 6.5 g/d to represent an estimate of average consumption of fish and shellfish from estuarine and fresh waters by U.S. population (USEPA, 1980).
- * 20 g/d to represent an estimate of average consumption of fish and shell fish from marine, estuarine, and freshwaters by the U.S. population (USDA, 1984).
- * 165 g/d to represent an estimate average consumption of fish and shellfish from marine, estuarine, and freshwaters by the 99.9th percentile of the U.S. population (Finch, 1973).

* 180 g/d to represent a "reasonable worst case" based on the assumption that some individuals would consume fish at a rate equal to the combined consumption of red meat, poultry, fish, and shellfish in the U.S. (USEPA, 1989a).

Water Quality Standard

The TCDD water quality standard is 0.013 pg/l (parts per quadrillion) in waters with the designated beneficial uses of drinking water and fish consumption (OAR 340-41 Table 20).

Table 5

TCDD Water Quality Standard OAR 340-41 Table 20

<u>Compound</u>	<u>Water and Fish Ingestion</u>	<u>Fish Consumption Only</u>
Dioxin (2,3,7,8-TCDD)	0.013 pg/l	0.014 pg/l

Water and Fish Ingestion = Values represent the maximum ambient water concentration for consumption of both contaminated water and fish or other aquatic life.

Fish Ingestion Only = Values represent the maximum ambient water concentration for consumption of fish or other aquatic organisms.

The Oregon water quality standard for TCDD was adopted in 1987 by the Environmental Quality Commission. The standard adopted was for the protection of human health at a risk of 1×10^{-6} . The standard was adopted from the USEPA water quality criteria for TCDD (USEPA, 1985).

The TCDD water quality standard is a human health based in-stream water quality standard. TCDD has been listed by the USEPA as a probable human carcinogen. This listing is based on animal studies (USEPA, 1985; Kociba, 1979). Protection of human health was identified as the most sensitive beneficial use.

A water quality standard was not adopted for the protection of aquatic life. Criteria values for the protection of aquatic life were based on the LOAEL. These concentrations were several orders of magnitude above the water quality criteria for the protection of human health. Achieving the in-stream water quality standard for the protection of human health would be protective of aquatic life concerns based on the information from the criteria document. Additional information is needed on the protection of piscivorous birds.

Water Quality Criteria Development

Development of the water quality criteria for TCDD was documented in Ambient Water Quality Criteria for 2,3,7,8-Tetrachlorodibenzo-p-dioxin (USEPA, 1985). The TCDD water quality criteria was calculated by the following method.

$$\text{WATER []} = \frac{\text{RISK} \times \text{WT}}{[\text{WCR} + (\text{BCF} \times \text{FCR})] \times \text{CPF}}$$

Where:

WATER [] = Ambient water concentration

RISK = 1×10^{-6} lifetime cancer risk

WT = Assumed body weight of human adult of 70 kilograms

WCR = Water consumption rate of 2 liters per day

BCF = Bioconcentration factor for fish of 5000 (no units)

FCR = Fish consumption rate of 6.5 grams per day

CPF = Cancer potency factor of 156,000 mg/kg/day
(70 year lifetime exposure)

Cancer Potency Factor

Many substances cause a carcinogenic response in animals. Some substances cause a stronger carcinogenic response than others. The cancer potency factor is a measure of the potential of a substance to cause cancer (USEPA, 1989). Cancer potency factors for TCDD have been calculated by several agencies including USEPA, Food and Drug Administration (FDA), and Ministry of Ontario (MNO) (Chemerisk, 1989).

The USEPA uses the linearized multistage model (LMS) for derivation of cancer potency factors when there is no convincing biological evidence for use of another model (USEPA, 1989). The LMS derives the upper 95% confidence limit of the slope of a straight line which has been fitted to laboratory data. The LMS assumes that carcinogenic response is non-threshold, that is, some increase of cancer incidence occurs at any exposure (USEPA, 1989). The LMS is used to predict low dose cancer risk. The LMS dose-response data are usually derived from rat and mice lifetime cancer bioassays.

The LMS was used by USEPA for calculating the cancer potency factor for TCDD (USEPA, 1985). Tumor incidence versus dose information from Kociba, 1978 was used for fitting the LMS (USEPA, 1985). Information from mice and epidemiological studies were used as supporting evidence (USEPA, 1985). The cancer potency calculated by the LMS was 156,000 mg/kg/day (USEPA, 1985). The reference dose (RfD) is calculated from the cancer potency factor and the level of risk.

$$\text{RfD} = \frac{\text{Level of Risk}}{\text{Cancer Potency Factor}}$$

The USEPA RfD at a 1×10^{-6} risk level (one chance in a million) is 0.006 pg/kg/day. A RfD is an estimate of the daily exposure to human populations that is unlikely to produce an appreciable risk (USEPA, 1989). RfDs are conceptually the same as Acceptable Daily Intake (ADI).

The FDA calculated a TCDD cancer potency factor of 17,500 mg/kg/day (USEPA, 1984 memo). The FDA cancer potency factor was developed from the linear interpolation model using dose-response data from Kociba, 1978 (Chemerisk, 1989). This model prediction is based on a non-threshold carcinogenic response to TCDD exposure. The FDA RfD at a 1×10^{-6} is .057 pg/kg/day (USEPA, 1984).

Several countries including Canada calculate TCDD cancer potency on the basis of a threshold carcinogenic response (Chemerisk, 1989; NRCC, 1981). The threshold calculation is based on studies that indicates exposure to TCDD below a certain concentration does not cause a carcinogenic response (USEPA, 1989 memo). This concentration is then used for calculating an Acceptable Daily Intake for TCDD. The maximum ADI calculated by MNO is 10 pg/kg/day (NRCC, 1981).

The Science Advisory Board (SAB) reviewed information on causation of cancer by TCDD (SAB, 1989). The SAB concluded " at the present time the important new scientific evidence about 2,3,7,8-TCDD does not compel a change in the current assessment of the carcinogenic risk of 2,3,7,8-TCDD to humans. "

A review of the Squire Report is being performed by a group of pathologists at the request of the Maine Department of Health. The Squire Report examined slides of tissues from the Kociba rat study for determining the incidence of cancer in different organs. The information from the Squire Report was used in the USPA linear multi-staged model for deriving the cancer potency factor. A change in the classification of the tumors could change the cancer potency factor. The results of the study have just been released. It is unknown at this time to what extent this analysis will affect the cancer potency factor.

Bioaccumulation Factors

Bioaccumulation is the uptake and retention of substances by an organism from the surrounding medium and food (USEPA, 1984). Bioconcentration is the uptake of substances from the surrounding medium through gill membranes or other external body surfaces (USEPA, 1984).

Aquatic organisms have been reported to accumulate TCDD (USEPA, 1984, 1988). Fish have been reported to accumulate TCDD when exposed to contaminated sediments, flyash, and dissolved TCDD (Rappe et al., 1986; Kuehl et al., 1987a, 1987b; Mehrle, 1989). Bioconcentration factors reported from laboratory studies for various fish species were; 66,000 for carp, 97,000 and 159,000 for fathead minnow, and 39,000 for rainbow trout (Cook, 1987; Mehrle, 1989).

Bioconcentration factors (BCF) established in the laboratory may not adequately represent biological uptake in natural environments. Bioaccumulation would better estimate the routes of exposure and actual uptake rates in natural systems.

The bioaccumulation rate would estimate the uptake of TCDD from the significant routes (USEPA, 1988). These routes would include food chain, water ingestions, sediment ingestion, and bioconcentration. Fish tissue concentration would be variable depending on species and trophic level, lipid content, weight, ratio of surface area to weight, organic carbon content of sediment, food intake rate, density of suspended solids, and TCDD concentration in sediment (USEPA, 1988). These estimates would be specific to a given waterbody and would be dependent on physical transport, chemical transformation, and biological degradation (USEPA, 1988).

When site specific information is unavailable for calculating a bioaccumulation factor use of the laboratory bioconcentration factor would be appropriate for use. A bioconcentration factor of 5000 was used in deriving the criteria for TCDD (USEPA, 1985). Based on the recent laboratory data on bioconcentration factors the 5000 BCF is probably low.

Fish Consumption Rate

The fish consumption rate used in the water quality criteria was 6.5 grams per day.

Water Consumption Rate

Water consumption rate was estimated at 2 liters per day. Water consumption is not viewed to be a significant exposure route when compared to fish ingestion due to the bioconcentration factor.

Human Weight

Human weight of 70 kg was used as an estimate of a average adult male (Snyder, et al., 1975 cited in USEPA, 1984 memo).

Risk

The USEPA recommended risk levels for carcinogens for water quality standards were 1×10^{-5} , 1×10^{-6} , or 1×10^{-7} . These risk levels correspond risks of one in a hundred thousand, one in a million, and one in ten million. The Oregon Environmental Quality Commission adopted a risk level of 1×10^{-6} for water quality standards (OAR 340-41 Table 20).

IV. DEPARTMENT PROPOSAL FOR PUBLIC COMMENT

The Department recommends the following:

1. Continue to use the one in a million risk level for water quality standards.
2. Retain the current water quality standards for 2,3,7,8-TCDD.
3. Adopt a chronic water quality standard for the protection of aquatic life of 3.8 picograms per liter (ppg). This would be based on the LOEL times a safety factor of 10.
4. Continue literature reviews of the subject.
5. Pursue piscivorous birds or other species as a more sensitive species than humans.

V. PUBLIC COMMENTS RECEIVED ON ISSUE PAPER

The Department received the following public comment on 2,3,7,8-TCDD.

An independent team of pathologist's review of the liver slides from the study used by USEPA for determining the cancer potency factor used in the water quality criteria development reported fewer incidence of malignant tumors.

Cooking loss should be considered when calculating the standard.

Alternative risk levels of 1×10^{-4} and 1×10^{-5} should be used instead of 1×10^{-6} .

Fish consumption rates reported in the Northwest Pulp and Paper study on dioxins in the Columbia River system should be used in calculating the water quality criteria.

USEPA's use of surface area for extrapolation of rat data to humans is inappropriate for 2,3,7,8-TCDD and the body weight method should be used instead.

Uptake of 2,3,7,8-TCDD does not appear to make a significant contribution to bioaccumulation with sediments and food having more effect on bioaccumulation. Based on this information no bioaccumulation is occurring.

Fish could comprise 50% of the Native American diet along the Columbia River. Many different species are consumed by Native Americans. Native Americans would consume fillets, skin, head, eggs, bones, heart, and tail.

The standard is not protective of children, pregnant women, wildlife, and people that weigh less than 70 Kg.

A greater safety factor than 10 should be applied to the LOAEL for use as an acute criteria for protection of aquatic life.

VI. THE DEPARTMENT RESPONSE TO PUBLIC COMMENTS

The risk level of 1×10^{-6} is a policy decision that the Environmental Quality Commission has adopted for use in water quality standards.

The review of information on the factors used in calculating the water quality criteria indicates that although the cancer potency used by USEPA is high and should be lower the bioconcentration factor and fish consumption rates used are low and should be higher. The use of reasonable estimates by the Department for these factors indicate that the water quality criteria is within these estimates.

Cooking methods and cooking loss have not been well established for all methods of fish preparation.

Protection of human health from carcinogenic response to 2,3,7,8-TCDD appears to be the most sensitive beneficial use from the available literature. Based on this information the Department will not propose any changes to the current standard for dioxin. However, the Department is proposing to adopt a chronic water quality standard for protection of aquatic life. The rule language is part of the Toxics Substances Standards (Issue Paper #7).

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ISSUE PAPER # 10
MIXING ZONES
Revised as of 10/22/90

I. INTRODUCTION

A mixing zone is a designated area of a receiving water where waste water and receiving waters mix. Water quality standards and criteria can be suspended all or in part, or less restrictive standards can be established. Mixing zones are designated to reduce excessive waste water treatment and to limit areas of water quality degradation (USEPA, 1985).

The Environmental Quality Commission adopted mixing zone language into the Oregon Administrative Rules in 1987. Since adoption the Department has recognized several areas that need additional definement. These areas are defining acute and chronic toxicity, the point where no acute toxicity is allowed, and defining the size of the mixing zone.

II. CURRENT RULE

The language for a mixing zone is stated in each basin standard and are the same for all basins.

340-41-(River Basin)

(4) Mixing zones:

(a) The Department may allow a designated portion of a receiving water to serve as a zone of initial dilution for waste waters and receiving waters to mix thoroughly and this zone will be defined as a mixing zone.

(b) The Department may suspend all or part of the water quality standards, or set less restrictive standards, in the defined mixing zone, provided the following conditions are met:

(A) The water within the mixing zone shall be free of:

(i) Materials in concentrations that will cause acute (96HrLC 50) toxicity to aquatic life. Acute toxicity is measured as the lethal concentration that causes 50 percent mortality of organism within a 96-hour test period.

(ii) Materials that will settle to form objectionable deposits.


United States
Environmental Protection Agency
Region 10
1200 Sixth Avenue
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**TOTAL MAXIMUM DAILY LOADING (TMDL)
TO LIMIT DISCHARGES OF 2,3,7,8-TCDD (DIOXIN)
TO THE COLUMBIA RIVER BASIN**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. § 1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4, the Environmental Protection Agency is hereby establishing a TMDL to limit discharges of dioxin to the Columbia River basin.

This TMDL shall become effective immediately, and is incorporated into the water quality management plans for the states of Washington, Oregon, and Idaho under Clean Water Act § 303(e). Subsequent state actions must be consistent with this TMDL.

Signed this 25th day of February, 1991.


Dana A. Rasmussen
Regional Administrator, Region 10
U.S. Environmental Protection Agency

APPENDIX C

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WATER QUALITY DIVISION
DEPT. OF ENVIRONMENTAL QUALITY

**TOTAL MAXIMUM DAILY LOAD (TMDL)
FOR 2,3,7,8-TCDD
IN THE COLUMBIA RIVER BASIN**

**Decision Document
February 25, 1991**

Developed pursuant to the provisions of the Clean Water Act, 33 U.S.C. §1251, *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4.

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WATER QUALITY DIVISION
DEPT. OF ENVIRONMENTAL QUALITY

**TOTAL MAXIMUM DAILY LOAD
FOR
2,3,7,8-TCDD IN THE COLUMBIA RIVER BASIN**

Decision Document

1. SCOPE

This total maximum daily load (TMDL) addresses the following segments, pollutants, and source categories:

WATER QUALITY-LIMITED SEGMENTS:

<u>RIVER SEGMENT</u>	<u>APPLICABLE WATER QUALITY RULES:¹</u>
Columbia River (RM 0 - 745)	WAC 173-201-047 ²
" " (RM 0 - 309)	WAC 173-201-080(19) ³
" " (RM 309 - 596)	WAC 173-201-080(20) ³
" " (RM 596 - 745)	WAC 173-201-080(21) ³
" " (RM 0 - 86)	OAR 340-41-202 & 205(2)(p) ^{4,5}
" " (RM 86 - 120)	OAR 340-41-442 & 445(2)(p) ^{4,5}
" " (RM 120 - 147)	OAR 340-41-482 & 485(2)(p) ^{4,5}
" " (RM 147 - 203)	OAR 340-41-522 & 525(2)(p) ^{4,5}
" " (RM 203 - 218)	OAR 340-41-562 & 565(2)(p) ^{4,5}
" " (RM 218 - 247)	OAR 340-41-602 & 605(2)(p) ^{4,5}
" " (RM 247 - 309)	OAR 340-41-642 & 645(2)(p) ^{4,5}
Snake River (RM 0 - 176)	WAC 173-201-047 ²
" " (RM 0 - 176)	WAC 173-201-080(97) ³
" "	IDAPA 16.01.2120 & .2200 ^{6,7}
Willamette River (RM 0 - 187)	OAR 340-41-442 & 445(2)(p) ^{4,5}

¹ In addition to the following, all waste load allocations and permit limits must ensure compliance with applicable water quality standards of downstream states [40 CFR § 122.4(d)].

² WAC 173-201-047 describes Washington's applicable criteria for toxic substances.

³ WAC 173-201-080 describes Washington's classification for specific waterbodies.

⁴ OAR 340-41-xx2 describes beneficial uses designated by Oregon.

⁵ OAR 340-41-xx5(2)(p) describes Oregon's applicable criteria for toxic substances.

⁶ IDAPA 16.01.2120 describes the designated uses for the confluence of the Clearwater and Snake River in Idaho.

⁷ IDAPA 16.01.2200 describes Idaho's criteria for hazardous and deleterious materials.

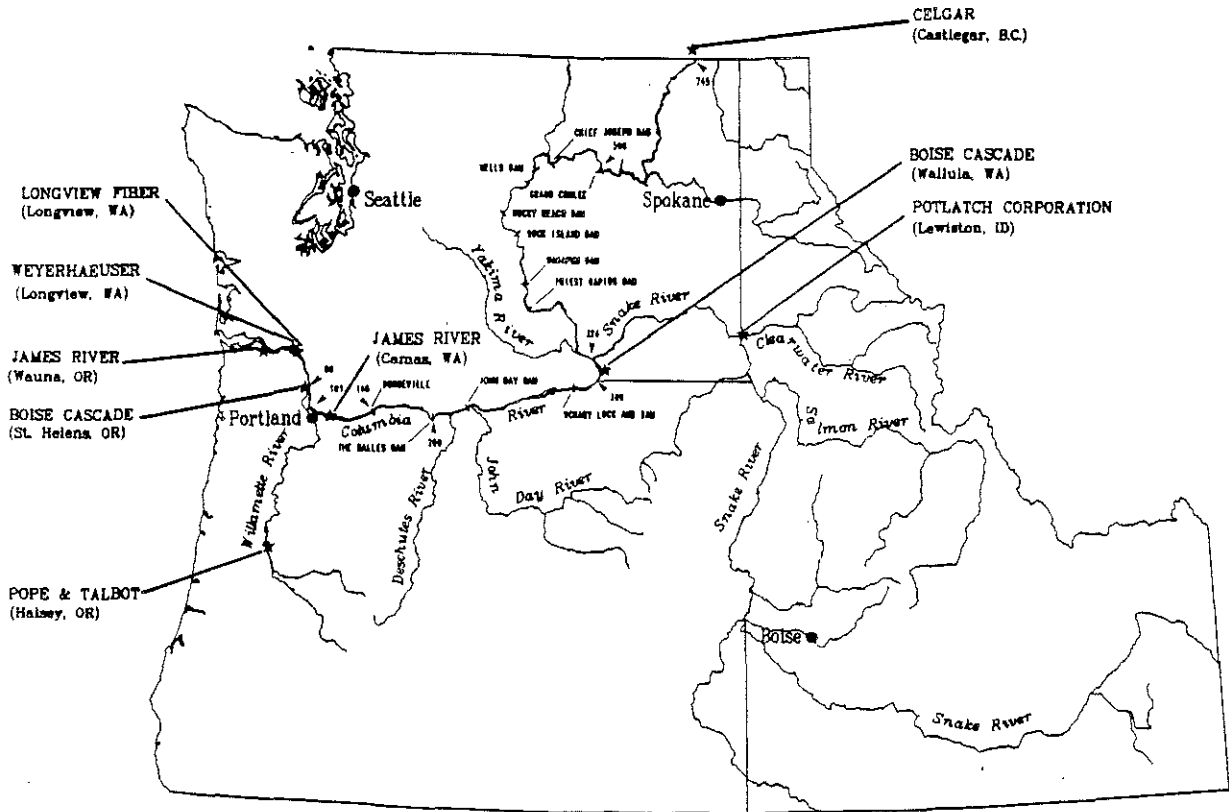
POLLUTANT CAUSING EXCEEDANCE OF WQ STANDARDS:

2,3,7,8 - tetrachlorodibenzo-para-dioxin (2,3,7,8-TCDD)

SOURCE CATEGORIES CONSIDERED:

<u>Source Category</u>	<u>Allocation Type</u>	<u>Source Description</u>
1	WLA ¹	Pulp & Paper Mills -- Chlorine Bleaching
2	Reserved	All Other Sources:
		<ul style="list-style-type: none"> ■ Pulp & Paper Mills -- Non-Chlorine Bleaching ■ Woodtreaters Using Pentachlorophenol ■ Municipal Wastewater Treatment Facilities ■ Canadian Sources ■ Other Point Sources ■ Port Activities ■ Urban Areas ■ Other Nonpoint Source ■ Background

Figure 1-1. Columbia River Basin.



¹ WLA = waste load allocation

2. NEED FOR A TMDL

A. Overview

The Columbia River and segments of the Snake and Willamette Rivers are currently water quality-limited due to the presence of excessive levels of 2,3,7,8-TCDD. This pollutant is the most toxic of a group of compounds known as polychlorinated dibenzo-para-dioxins (dioxin). The concern over dioxin levels in the Columbia River is based on data describing concentrations of 2,3,7,8-TCDD in effluents and treatment plant sludges at chlorine-bleaching pulp mills as well as in fish tissue below these mills.

Section 303(d)(1)(C) of the Clean Water Act (CWA) and EPA's implementing regulations (40 CFR Part 130) require each state to identify waters for which existing required pollution controls are not stringent enough to attain applicable water quality standards. For these water quality-limited segments, each state is then to establish total maximum daily loads (TMDLs) for appropriate pollutants of concern. By definition (40 CFR, § 130.2), a TMDL is the sum of the individual waste load allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. The CWA states that the TMDL:

"shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality."

Thus, the TMDL is effectively an implementation plan for achieving water quality standards using an appropriate margin of safety. A margin of safety may be provided (1) by using conservative assumptions in the calculation of the loading capacity of the waterbody and (2) by establishing allocations that in total are lower than the defined loading capacity. The water quality standard being protected by this TMDL is 0.013 parts per quadrillion (ppq) 2,3,7,8-TCDD in the water (see Appendix A).

The national focus on toxics discharges as evidenced in the 1987 amendment to Section 304 of the CWA, 33 U.S.C. § 1314(l), gives additional urgency to the establishment of this TMDL. Congress intended § 304(l) to focus state water quality protection programs on immediately addressing water quality problems due to point source discharges of toxic pollutants. States are required to develop lists of impaired waters, identify point sources and amounts of toxic pollutants they discharge, and to develop individual control strategies (ICSs) for each such point source. An ICS may be a draft or a final National Pollutant Discharge Elimination System (NPDES) permit. The § 304(l) lists developed for Washington, Oregon, and Idaho have identified dioxin levels in the Columbia, Snake, and Willamette Rivers as exceeding applicable water quality standards. Limits included in ICS's, developed under § 304(l), must be consistent with waste load allocations (WLAs) where a TMDL has been established.

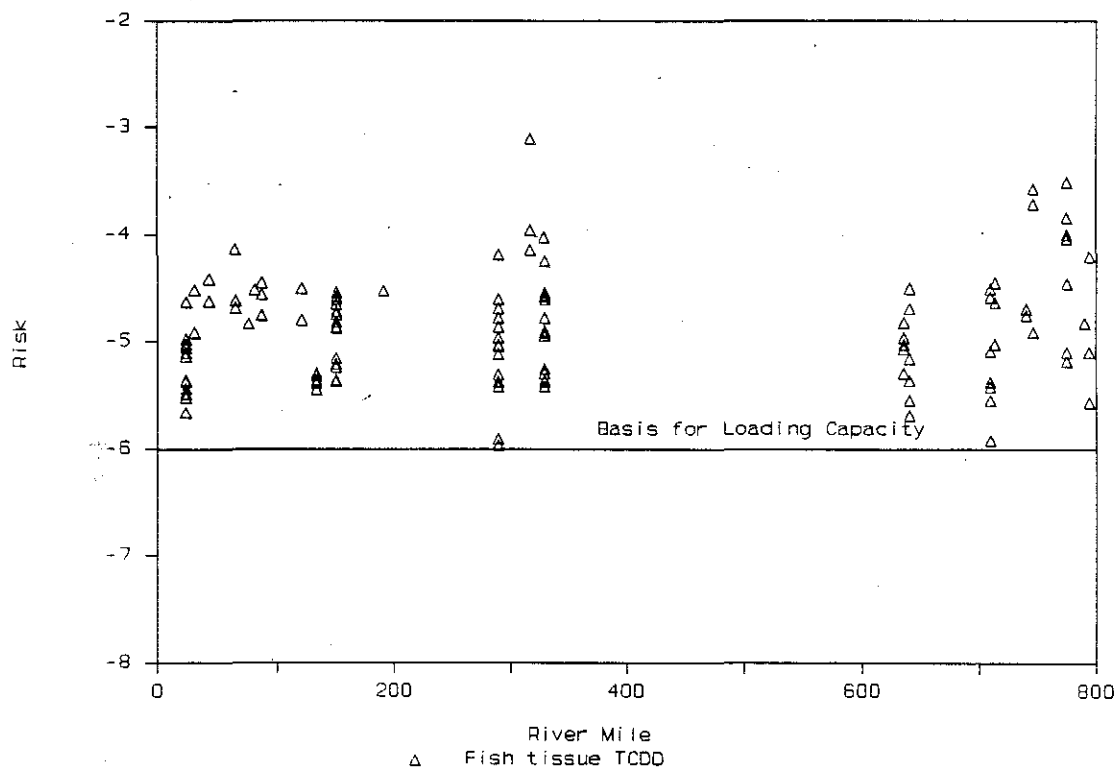
B. The Concern

Dioxins are produced as a result of human activities, such as the manufacture of chlorinated herbicides, the combustion of domestic and industrial wastes, and the production of chlorine-bleached wood pulp. Both water column concentrations of dioxin in the Columbia River and the water quality standard for 2,3,7,8-TCDD are below levels which can be measured with current analytical technology. However, because some organisms, such as fish, accumulate dioxin in their bodies, 2,3,7,8-TCDD has been found at detectable levels in the tissue of fish taken from the Columbia River basin. As discussed below, these tissue levels are of concern and indicate that these waters exceed state water quality standards.

The state water quality standard applicable to 2,3,7,8-TCDD in the Columbia River basin has been determined to be 0.013 ppq (see Appendix A). The EPA criterion on which this standard is based was derived from human health concerns resulting primarily from consumption of contaminated fish. In establishing EPA's 1984 2,3,7,8-TCDD criterion values, the following factors were developed and used: a bioconcentration factor (this relates the concentration in fish tissue to the concentration in the water in which the fish lives), fish consumption rates, and a cancer potency factor. These factors relate water column concentrations to fish tissue concentration and cancer risk. A fish tissue concentration of 0.07 ppt and a water concentration of 0.013 ppq (the applicable water quality standard) are both estimated to result in a life-time cancer risk of 10^{-6} (one excess cancer per one million people).

In 1987, EPA initiated a National Bioaccumulation Study (NBS) designed to gather screening information on the prevalence and concentrations of selected toxic compounds in fish tissue and other aquatic organisms. This study was conducted on a broad scale across the United States and included testing for 2,3,7,8-TCDD. Sampling sites included relatively undisturbed background areas, streams below industrial, agricultural, and urban activities, and segments below mills using chlorine to bleach pulp. The NBS identified concerns related to chlorine-bleaching kraft pulp mills. Fish samples collected at several locations below chlorine-bleaching pulp mills on the Columbia River within EPA Region 10 (from the Canadian border to the mouth) have shown detectable concentrations of 2,3,7,8-TCDD. Another EPA study, the "104 Mill Study" (1988), subsequently confirmed, through testing of effluents and sludges, that chlorine-bleaching pulp mills are a significant source of 2,3,7,8-TCDD.

Figure 2-1 displays estimates of risk of excess cancer resulting from consumption of fish at various locations along the length of the river. The risk estimates were obtained by applying the fish consumption and cancer potency factors used in developing the EPA criterion for 2,3,7,8-TCDD to fish tissue concentrations actually measured. Fish tissue data used came from EPA's National Bioaccumulation Study (1987), the Northwest Pulp & Paper Associations's Columbia River Fish Study (Beak Consultants, 1989), the Washington Department of Ecology's work on Lake Roosevelt (1989-1990), and from efforts in Canada. The resulting risk estimates (Figure 2-1) are consistently higher than the 10^{-6} level, confirming that the water quality standard and, therefore, the loading capacity of the system, are being exceeded. This is consistent with, and supported by, predicted water column concentrations of 2,3,7,8-TCDD (based on in-stream dilution of pulp mill discharges as measured in the 104 Mill Study) which also exceed the water quality standard.

Figure 2-1. Columbia River Fish Tissue Data

C. Water Quality-limited Status

Oregon has identified the Columbia River (river miles 0 - 309) and the Willamette River (RM 0 - 187) as being water quality-limited for 2,3,7,8-TCDD. Washington has similarly identified the Columbia and Snake Rivers within that state as being water quality-limited for 2,3,7,8-TCDD. The state of Idaho has also identified the confluence of the Clearwater and Snake Rivers as being water quality-limited for 2,3,7,8-TCDD. On June 14, 1990, EPA approved these listings pursuant to CWA Section 303(d).

On March 21, 1990 the states of Oregon, Washington, and Idaho stated that they would not adopt a TMDL for dioxin in the Columbia River as state actions but rather requested that EPA establish this TMDL as a federal action. The states acknowledged that while the development of a TMDL has been a cooperative effort, the interstate nature of the Columbia River Basin and the desirability of consistency and equity in regulating dischargers in this basin necessitated that the TMDL be a federal action. Therefore, on June 14, 1990, pursuant to Section 303(d), EPA formally disapproved the expressed intent of Washington, Oregon, and Idaho to not submit TMDLs and, subsequently, developed this final TMDL for dioxin discharges to the Columbia River basin as a federal action.

This TMDL provides a framework to control 2,3,7,8-TCDD discharges to the Columbia River Basin and achieve compliance with water quality standards. The following sections of the decision document describe the established TMDL and the process used to develop it.

3. DEVELOPMENT OF THE TMDL

A. Overview

Development of a TMDL provides a process for weighing the needs of competing activities which affect water quality in a watershed and creating an integrated pollution control strategy for point and nonpoint sources. This process allows regulatory agencies to take a holistic view of water quality problems from the perspective of in-stream conditions.

The total load of a pollutant to a waterbody is attributable to point sources, nonpoint sources, and natural background. The TMDL process distributes portions of the stream's loading capacity to the various sources, including background conditions, in a way that will achieve water quality standards. The level of refinement reflected in actual allocations depends on the amount of available data. The Water Quality Management Regulations [40 CFR, § 130.2] state, for example, that:

"Load allocations are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading."

As previously pointed out, Section 303(d) states that a margin of safety should be used which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. Thus, the law indicates that the TMDL process should move forward using available information. As new information becomes available in the future, the TMDL can be refined.

B. Process

The TMDL identifies the amount of a pollutant that may be discharged to a water quality-limited stream. TMDLs can be expressed in terms of either chemical mass per time, toxicity, or other appropriate measure. The TMDL for a particular waterbody is dependent on such factors as the location of sources, stream flow, water quality standards, background conditions, and in-stream pollutant reactions. The process of developing and implementing a TMDL for 2,3,7,8-TCDD in the Columbia River basin consists of several steps:

- **define the loading capacity** of the river at key points
- **identify sources** which potentially contribute loads of 2,3,7,8-TCDD
- **allocate loads** to point sources, nonpoint sources (NPS), and background
- **implement** the TMDL through Water Quality Management Plans and NPDES permits

C. Loading Capacity

WLAs and LAs represent the allocated portions of a receiving water's loading capacity. The loading capacity is the greatest amount of pollutant loading that the river can receive without violating water quality standards. A TMDL must not exceed the loading capacity of a waterbody.

Two fundamental issues must be determined at the outset when establishing a TMDL. These are (1) the definition of upstream and downstream boundaries of the waterbody for which the TMDL is being determined and (2) the flow conditions (design flow) appropriate for calculating the loading capacity or amount of pollutant which can be assimilated. Having defined the extent of the waterbody and the appropriate flow conditions, the loading capacity is calculated to achieve the applicable water quality standard (see Appendix A for discussion of applicable standards for dioxin and river flow rates occurring in the Columbia River Basin).

A loading capacity of approximately 6 mg of 2,3,7,8-TCDD per day has been calculated for the Columbia River at its mouth.

D. Sources

The Columbia River is over 1200 miles long and drains an area of about 259,000 square miles. Land use and terrain in the basin are diverse. General activities affecting water quality in the basin include areas of urban development, industry, agriculture, and forestry. In terms of 2,3,7,8-TCDD, chlorine bleaching pulp mills have been identified as a major source based on their effluent and sludge data.

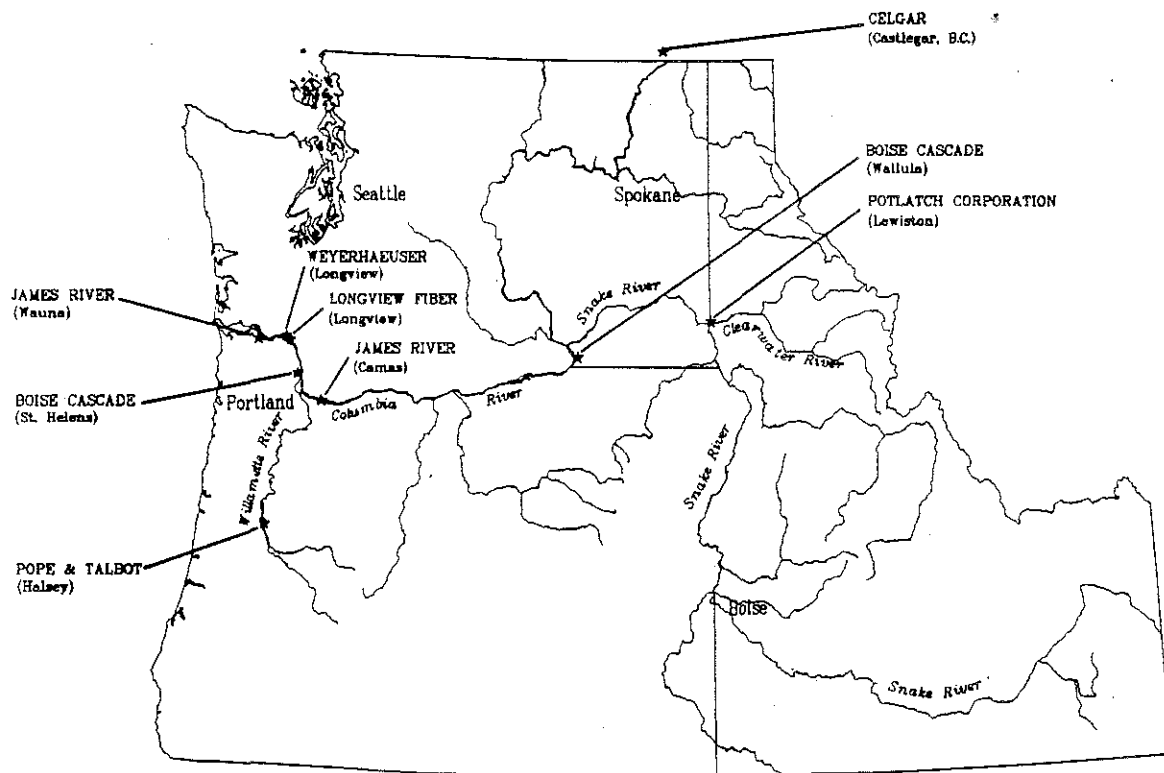
Within EPA Region 10, eight chlorine-bleaching pulp mills currently discharge to the Columbia River system. These mills, one in Idaho, four in Washington, and three in Oregon, are shown in Figure 3-1. The eight mills currently produce over 7,000 tons per day of bleached pulp. Another chlorine-bleaching pulp mill which discharges to the Columbia River is located near Castlegar, British Columbia, about 30 miles above the U.S. - Canadian border. Known sources of 2,3,7,8-TCDD are thus affecting the Columbia River within EPA Region 10, from the mouth near Astoria, Oregon to the Canadian border (river mile 745) and the Snake and Willamette Rivers, major drainages within the Columbia River system. Consequently, the entire Columbia River basin, including the Snake and Willamette Rivers, are included in the TMDL. Tributaries outside of EPA Region 10, such as the Clark Fork in Montana, have also been considered in developing the TMDL.

Besides chlorine bleaching pulp mills, other potential source categories include woodtreaters using pentachlorophenol, major municipal wastewater treatment plants, agricultural areas, industrial sites, urban areas, and release from bottom sediments. Data on dioxin discharges from these sources, however, are minimal or nonexistent for the following reasons:

- Concern over the extent of dioxin pollution is relatively recent.
- Many of the point sources have been considered minor dischargers in the past and had minimal monitoring requirements.
- It is difficult to characterize loadings from stormwater or nonpoint sources. These inputs are not continuous and are generally driven by weather related events such as rain storms or snow melt.
- There are analytical obstacles associated with measuring 2,3,7,8-TCDD. The water quality standard of 0.013 parts per quadrillion (ppq) is several orders of magnitude below a typical detection limit of 10 ppq for water column measurements.

The available data are not adequate to develop WLAs or LAs for these sources. However, current loadings for some of these other dioxin sources of concern in the Columbia basin are estimated in Appendix B and summarized later in the following section.

Figure 3-1. Location of Chlorine-Bleaching Pulp Mills in the Columbia River Basin



E. Allocation of Loads

Having identified major sources of 2,3,7,8-TCDD to the Columbia River basin, the TMDL must establish allocations sufficient to control discharges within the loading capacity. These allocations are made considering technical, socioeconomic, and institutional constraints. Historically, individual states have used various allocation schemes on a case-by-case basis or specified that a particular method be used. Technical guidance has been prepared which describes 19 potential approaches for allocation of loads ("Technical Guidance Manual for Performing Waste Load Allocations", U.S. Environmental Protection Agency, 1986). When evaluating various methods, conditions that favor one approach over another must be considered.

With respect to this TMDL there are some potential problems in using the more common methods described in the technical guidance:

- The geographic scale associated with the Columbia Basin and the number of potential sources is considerably larger than the scale typically encountered in most TMDL situations.
- Common methods focus on waste load allocations for point sources. Background sources (e.g. release from bottom sediments) and nonpoint source loads, however, may be significant considerations for 2,3,7,8-TCDD in the Columbia River basin.
- There are few data on 2,3,7,8-TCDD discharges from source categories other than chlorine bleaching pulp mills in the basin.
- There are complexities in addressing persistent and highly bioaccumulative pollutants such as 2,3,7,8-TCDD.

The last three of these points mean that data and methods of analysis (e.g. predictive models) are not available to adequately characterize all pollution sources at this time. However, the lack of information about some pollution sources or processes is not a reason to delay implementation of water quality-based controls for known sources contributing to violations of water quality standards. The key is to work within a logical framework that will lead to the attainment of water quality standards. After consideration of the above problems and the issues discussed in Appendix B, the following approach was developed for this TMDL:

- Identify watershed targets to be used as a framework to guide allocation decisions;
- Establish WLAs for the major source category for which there are currently sufficient data to do so;
- Estimate current loadings for other source categories;

- Reserve some of the unallocated loading capacity (beyond that necessary to cover the WLAs established and estimated current loadings for other sources) to provide an additional component of the margin of safety, some of which could be used for future growth.

This approach provides for further pollution reduction from known sources while additional data are collected to: (1) confirm that the reductions required by this TMDL are leading to water quality standards attainment; and (2) provide additional information necessary to refine estimates of assimilative capacities and TMDL allocations. This TMDL establishes WLAs that will form the basis of more stringent limits for dioxin discharges from confirmed point sources. It also estimates loadings from other sources and incorporates a margin of safety to account for existing uncertainties. Where new data show that modification of the TMDL is appropriate, the TMDL will be revised accordingly. By allowing future modification of the TMDL, regulatory agencies can avoid delays in controlling known sources while they continue to investigate other possible sources. Decisions on the use of the unallocated load will be made through a joint effort by the States and EPA.

Watershed Targets:

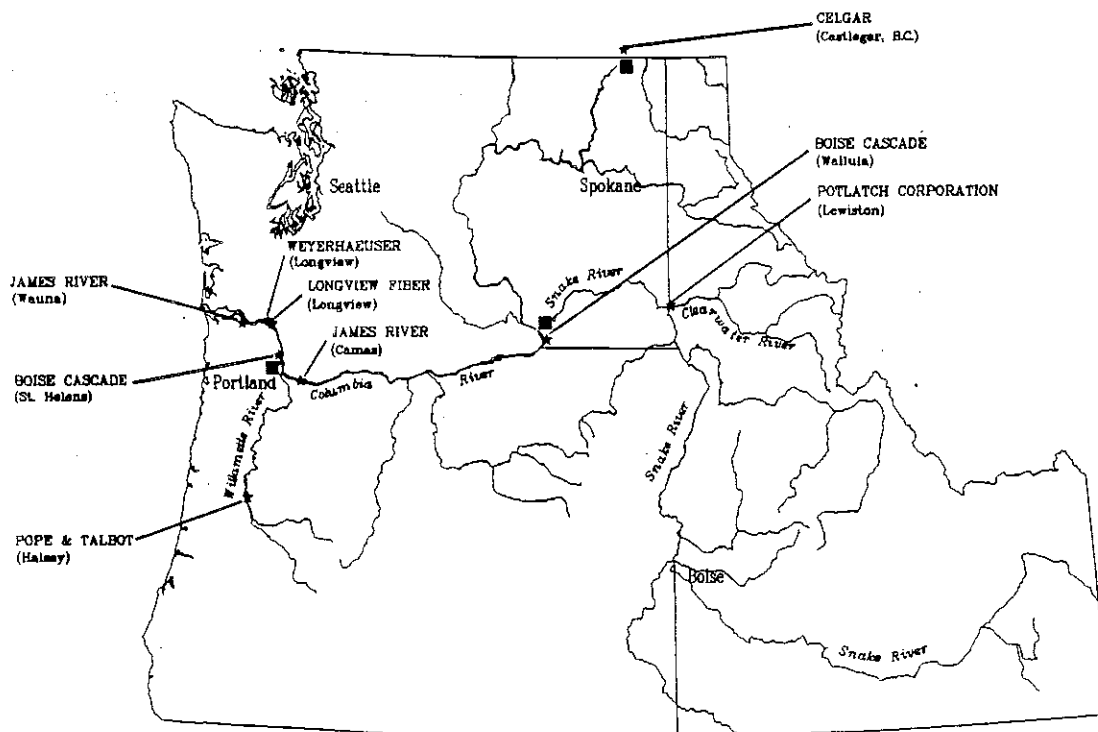
The Oregon Department of Environmental Quality (DEQ) has utilized the concept of watershed targets for developing TMDLs in Oregon. Watershed targets are particularly useful for TMDLs designed to achieve water quality standards in large waterbodies adversely affected by a pollutant coming from a variety of sources. Allocations for major sources are established after watershed targets are identified. The watershed targets serve as internal check points to determine that water quality standards will be met at key locations within the drainage. This same technique is also being used for the Columbia River in this TMDL.

Watershed targets can be set within the basin by simply identifying the loading capacity at key points in the drainage system. To determine these targets, the only data requirements are a water quality criterion and a design flow (in this case, the mean harmonic stream flow). The watershed targets focus on high priority tributaries. In the case of the Columbia, there are three logical points in addition to the lower Columbia near Bradwood (below Longview) for which loading capacities should be calculated. These locations are shown in Figure 3-2 and relevant data are summarized in Table 3-1.

The Willamette Basin is the most industrialized and populated area in the Columbia River system. There are high numbers of both industrial and municipal dischargers in the drainage compared to other sub-basins in the Columbia River system. The most logical approach is to establish the watershed target as equal to the loading capacity for the Willamette River at Portland (0.54 mg/day). The sum of all allocations to sources in the Willamette Basin must not exceed this watershed target. By the same token, loading capacity attributed to flow produced by the Willamette is not currently available for use in the mainstem Columbia.

Because the Willamette Basin is entirely within Oregon, the Oregon Department of Environmental Quality (ODEQ) has the option, within the context of a TMDL, to adjust allocations for specific sources which would still meet this watershed target. In fact, Oregon has already initiated dioxin controls in the Willamette through issuance of an NPDES permit to Pope & Talbot at Halsey with effluent limits for 2,3,7,8-TCDD (0.19 mg/day). Furthermore, DEQ has committed to developing a TMDL for dioxin in the Willamette which will meet the watershed target.¹ A Willamette Basin TMDL could include different limits for Pope & Talbot, based on needs determined by ODEQ.

Figure 3-2. Location of Watershed Targets (■) Relative to Pulp Mills



Watershed targets were also evaluated at two other locations in the Columbia system: 1) at the mouth of the Snake River and 2) at the U.S. - Canadian border. Far fewer sources exist upstream of these locations than is the case with the Willamette River basin. However, significant levels of 2,3,7,8-TCDD have been measured in tissue of fish taken from sites associated with each of these watersheds. The fish tissue concentrations indicate that the water quality standard and, therefore, the loading capacity for 2,3,7,8-TCDD is currently exceeded.

¹ This TMDL will be reviewed by EPA in accordance with §303(d) of the Clean Water Act.

Based on currently available data, reductions in 2,3,7,8-TCDD loads are needed to meet all three of these watershed targets. These watershed targets must be achieved in order to ensure attainment of water quality standards where those watersheds enter the Columbia River. To the extent that the TMDL results in loading reductions beyond that necessary to meet the watershed targets, the difference is available for other downstream uses, future growth, or margin of safety.

Table 3-1. Loading Targets for 2,3,7,8-TCDD to Selected Watersheds in the Columbia River System

Watershed	Harmonic Mean Flow (cfs)	Loading Capacity (mg/day)
TOTAL COLUMBIA RIVER BASIN	188,000 ¹	5.97
SELECTED SUB-BASINS		
Watershed N. of WA/Canada Border	72,700 ²	2.31
Snake River Watershed	37,000 ³	1.18
Willamette River Watershed	17,100 ⁴	<u>0.54</u>
TOTAL FOR SUB-BASINS		4.03

- ¹ Flow at Columbia River near Bradwood
² Flow at Columbia River at WA/Canada border
³ Flow at Snake River below Ice Harbor Dam
⁴ Flow of Willamette River at Portland

Establish WLAs

This TMDL focuses on developing waste load allocations for the chlorine bleaching pulp mills in the basin. These mills constitute the only source category in the Columbia River basin where site specific quantitative information exists describing effluent quality and waste loads for 2,3,7,8-TCDD. Nationally, the median 2,3,7,8-TCDD concentration in tissue of fish collected below pulp mills using chlorine bleaching was higher than for fish collected below any other source category studied in the National Bioaccumulation Study (1987). In addition, the §304(l) listings under the Clean Water Act specifically identified these mills in the Columbia River Basin as point sources requiring individual control strategies (ICS's). The basis of this listing was not only data describing concentrations of 2,3,7,8-TCDD in fish tissue below the mills but also measured concentrations of 2,3,7,8-TCDD in effluents and treatment plant sludges at these mills. The analysis undertaken in developing this TMDL indicates that this source category would lead to exceedance of water quality standards even if no other sources existed.

The proposed TMDL (public notice issued on June 15, 1990) discussed several alternative methods to establish waste load allocations for chlorine bleaching pulp mills. The waste load allocation methods evaluated are summarized in Appendix C. The proposed TMDL allocated approximately 2 mg/day (not including the Canadian Celgar mill or the planned expansion at Pope & Talbot) to the chlorine bleaching pulp mills. A major criterion for evaluating alternative methods for establishing WLAs for chlorine bleaching pulp mills was the need to verify compliance with resulting NPDES permits. Allocations for each mill were derived based on the lowest verifiable concentration (long term average of 4.7 ppq 2,3,7,8-TCDD in the bleached wastestream) in an assumed average wastewater flow per quantity bleached pulp produced (14,470 gallons/ton). Such an approach yields WLAs which are equal in terms of mass discharge per unit production of bleached pulp product (0.257 μg 2,3,7,8-TCDD/ton).

Table 3-2 displays WLAs based on updated production figures including planned production increases for Celgar [based on comments from R.W. Sweeney, Celgar Pulp Co.] and Pope & Talbot [based on comments from CH2M-Hill for James River and Pope & Talbot; July 20, 1990]. WLAs resulting from allowing 4 different quantities of 2,3,7,8-TCDD per ton of bleached pulp produced are given in the table. Three of the options reflect some of the comments received during the public comment period for the proposed TMDL.

- Option 1. This option reflects the belief by the pulp and paper industry that they should be given the entire loading capacity of the river system. An allowed discharge rate of 0.68 μg 2,3,7,8-TCDD per ton of bleached product results in 100% of the calculated loading capacity being allocated to the existing pulp and paper mills in the basin.
- Option 2. This option is generally equivalent to the WLAs proposed in the draft TMDL submitted for public comment. Two differences are noted: (1) the WLA for Pope & Talbot at Halsey is increased based on planned production increases and the NPDES permit recently issued by DEQ; and (2) a WLA has been calculated for the Celgar mill based on planned production increases and the discharge rate (0.257 μg 2,3,7,8-TCDD per ton of bleached product) allowed for the other mills. The calculated WLA for Celgar has no regulatory authority, but is used for comparison purposes and as an estimated loading which should be achievable by Celgar.
- Option 3. This option reflects the concern by the local pulp mills that the proposed TMDL did not provide equity with the Celgar mill at Castlegar, British Columbia. Based on information submitted by both the Celgar mill and the British Columbia Ministry of Environment (see Appendix B), the proposed modernization project at Celgar will result in 2,3,7,8-TCDD discharges which are less than 0.05 mg/day (or 0.042 μg /day per ton bleached pulp). The technology planned for use at Celgar is being or has been installed at several bleached kraft mills in other parts of the world. Option 3 applies this discharge rate to all the affected mills and results in 7% of the calculated loading capacity being allocated to the existing pulp and paper mills in the basin.

- Option 4. This is the zero discharge option requested by many commenters. The environmental community believes that zero discharge is the only viable option, because of dioxin's persistence and cumulative build-up in the sediments and biota.

Table 3-2. Waste Load Allocation Options for Chlorine-Bleaching Pulp Mills

Pulp Mill -- Location	Production of Bleached Product		Waste Load Allocations (mg 2,3,7,8-TCDD/day, long term average)			
	(tons/day)	(%)	Option 1 (0.68)	Option 2 (0.257)	Option 3 (0.042)	Option 4 (0.00)
Potlatch -- Lewiston, ID	1,509	15.1	1.03	0.39	0.06	0.00
Boise Cascade -- Wallula, WA	957	9.6	0.65	0.25	0.04	0.00
James River -- Camas, WA	1,650	16.5	1.12	0.42	0.07	0.00
Longview Fibre -- Longview, WA	310	3.1	0.21	0.08	0.01	0.00
Weyerhaeuser -- Longview, WA	1,026	10.3	0.70	0.26	0.04	0.00
Pope & Talbot -- Halsey, OR	1,500	15.0	0.19	0.19	0.06	0.00
Boise Cascade -- St. Helens, OR	1,035	10.4	0.70	0.27	0.04	0.00
James River -- Wauna, OR	800	8.0	0.54	0.21	0.03	0.00
Celgar -- Castlegar, B.C.	1,200	12.0	0.82	0.31	0.05	0.00
TOTAL Source Category Allotment	9,987	100.0	5.96	2.38	0.40	0.00
% of Basin Loading Capacity			100%	40%	7%	0%

- Note:** a) The value shown parenthetically under each option represents the equivalent quantity of 2,3,7,8-TCDD discharged in μg per ton of bleached pulp produced.
- b) The WLA listed for Pope & Talbot under Options 1 and 2 has been adjusted to the long term average of 0.19 mg/day identified in the NPDES permit issued by the Oregon Department of Environmental Quality (November 7, 1990). See discussion in "Watershed Targets" section.
- c) The WLAs listed for Celgar are included for comparison purposes only. EPA has no authority to establish enforceable WLAs for a Canadian source.

All available information has been carefully considered. Based on that information the "zero discharge" option is not necessary to achieve water quality standards and would not be enforceable due to the fact that the analytical detection limit is significantly higher than zero. Option 3 has similar difficulties, especially with respect to measuring compliance. This leaves Options 1 and 2 as still reasonable. The existence of other sources (see below), the lack of information on processes affecting the distribution of 2,3,7,8-TCDD, and the concern over the potential release from 2,3,7,8-TCDD stored in sediments and aquatic biota make Option 1 inappropriate. Consequently, Option 2 is the most reasonable approach at this time and **the WLAs listed under that option are being established as final in this TMDL**. EPA has concluded that these WLAs are the lowest levels consonant with analytical practicalities at this time and, as discussed below, can be accommodated within the available loading capacity taking into account other existing sources. NPDES permits issued subsequent to this TMDL must be consistent with these waste load allocations.

EPA recognizes that, as NPDES permits are developed, some adjustment of the above WLAs to reflect differences in particular mill capabilities may be appropriate. Such adjustments, if needed, will be determined on a case-by-case basis in consultation with the affected states.

Estimated Loadings From Other Sources

There is insufficient information, at this time, to establish WLAs for other point sources or LAs for nonpoint sources. However, in order to be reasonably certain that total loadings under this TMDL will not exceed the loading capacity of the system, loadings from some of the most significant other source categories are evaluated in Appendix B and summarized below.

Canada:

The Celgar pulp mill is the only Canadian source of dioxin to the Columbia River for which 2,3,7,8-TCDD has been measured in the effluent. As pointed out in the previous section, however, EPA has no authority to establish an enforceable WLA for the Celgar pulp mill in Canada. In this TMDL, EPA estimates that 2,3,7,8-TCDD loadings from sources upstream of the U.S.-Canada border will be no more than the 0.31 mg/day which we would allocate to Celgar if it were a Region 10 mill (Table 3-2, Option 2). Since Celgar is expected to reduce its 2,3,7,8-TCDD loadings to 0.05 mg/day by 1994, the higher 0.31 mg/day estimate provides some room to cover other unidentified sources upstream of the U.S.-Canada border and/or a margin of safety for the possibility that Celgar may not fully achieve anticipated reductions in its 2,3,7,8-TCDD loading to the Columbia River.

Other U.S. Point Sources:

As detailed in Appendix B, woodtreating facilities and municipal wastewater treatment plants are estimated, in total, to contribute current loadings of less than 2.3 mg/day 2,3,7,8-TCDD. Establishing WLAs for these facilities is not feasible at this time due to the shortage of data. Recent Resource Conservation and Recovery Act (RCRA) regulations for woodtreaters and NPDES regulations and guidance for stormwater discharges will lead to better information and control of discharges from these sources in the future. WLAs will be established, if appropriate, for those point source discharges with existing NPDES permits when information becomes available.

Other Sources and Background:

The remaining 22% of the loading capacity (1.29 mg/day) will be held in reserve as part of the needed margin of safety. This will cover contributions from (1) nonpoint sources such as agricultural or atmospheric inputs, (2) other industrial sources such as non-chlorine bleaching pulp mills, (3) background levels of 2,3,7,8-TCDD stored in the sediments and aquatic biota, and (4) possible future growth.

Data Collection

The establishment of this TMDL is not the conclusion of EPA's efforts with respect to controlling dioxin in the Columbia River basin. A more comprehensive data collection program is planned to confirm assumptions made in the development of this TMDL. Monitoring efforts will be designed to obtain better baseline information and to fill recognized data gaps, particularly with respect to other potential sources of 2,3,7,8-TCDD and the role of sediments. If necessary, the TMDL will be revised based on new information.

EPA will work cooperatively with the states to take the following actions:¹

- Develop a strategy to address water quality concerns related to 2,3,7,8-TCDD inputs from woodtreating facilities. The proposed strategy should identify individual sources in each state to be considered for allocations, a sampling plan for determining reductions needed, and a schedule for implementation of the strategy. This should be done in conjunction with activities required by NPDES regulations as implemented under recent guidance for controlling stormwater discharges.
- Address other point source concerns, such as other major industrial NPDES dischargers and major municipal NPDES facilities with formal pretreatment programs, by States forwarding to EPA existing state data on concentrations of dioxin in sludge.
- Develop a strategy that addresses the other source categories such as urban runoff and agriculture.

F. Judicial Review

Parties seeking to challenge this TMDL are advised that exclusive review of this TMDL might be in the United States Court of Appeals because arguments could be made that this TMDL includes "effluent limitations" or is part of a determination as to a State permit program, or is inextricably bound to the issuance or denial of NPDES permits. If that is the case, any petition for such review would have to be filed within 120 days of EPA's action in establishing the TMDL, as described in 40 CFR Section 23.2.

¹ This information collection is exempt from the Paperwork Reduction Act because it is being sought from fewer than 10 sources.

4. SUMMARY

Although certain types of data are currently lacking, available information highlights several concerns. Concentrations of 2,3,7,8-TCDD in fish tissue in several areas of the Columbia River basin exceed levels protective of human health at the 10^{-6} risk level and indicate that the state water quality standards are currently being exceeded. Regional and national data strongly suggest that pulp mills which use chlorine to bleach are the most significant sources of 2,3,7,8-TCDD to surface waters. Direct measurements of effluent samples taken from chlorine-bleaching pulp mills in the Columbia River basin confirms 2,3,7,8-TCDD levels requiring control.

There is a remaining need to refine information on contributions from other potential sources such as woodtreaters, as well as to describe the effect of attenuation and the role of sediments. This TMDL reserves a portion of the calculated loading capacity as unallocated because of this need for information. The TMDL established herein for 2,3,7,8-TCDD discharges to the Columbia River Basin completes the following actions:

- Establishes waste load allocations to individual pulp mills which use chlorine bleaching, at this time. Use equal mass discharge per unit production (Table 3-2, Option 2) to allocate waste loads to individual pulp mills in that source category. NPDES permit limits for these pulp mills must be consistent with this TMDL.
- Estimates loading from Columbia River sources upstream from the U.S.-Canada border. The total loading reserved for this source category is 0.31 mg/day. By 1994 the Celgar pulp mill, is expected to reduce its contribution to approximately 0.05 mg/day. The remainder of the 0.31 mg/day is reserved as a margin of safety to cover other unidentified sources upstream of the U.S.-Canada border and/or a shortfall by Celgar in achieving anticipated reductions.
- Estimates loading from some Region 10 point sources other than the pulp mills for which WLAs were established. Appendix B describes the evidence suggesting a total 2,3,7,8-TCDD loading from these sources of less than 2.3 mg/day.
- Reserves the remaining loading capacity (1.29 mg/day, after subtracting the WLAs and estimated loadings for the sources identified above) for (1) other undesignated sources, (2) an additional margin of safety to account for uncertainties in the assumptions used in developing this TMDL, and (3) future growth. This reserved portion is equal to approximately 22% of the total loading capacity. As uncertainties are reduced, more of the reserved capacity could be allocated to new or existing sources.

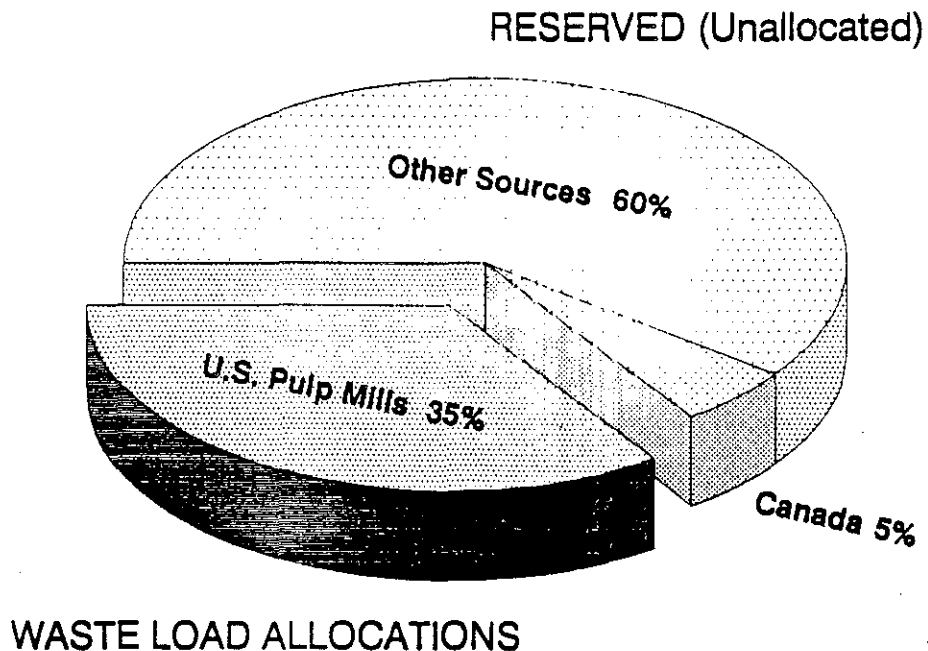
Table 4-1 and Figure 4-1 summarize the overall structure of the Final TMDL with the allocations based on currently available information.

Table 4-1. Waste Load Allocations for Chlorine-Bleaching Pulp Mills in Context of Watershed Targets

	2,3,7,8-TCDD (mg/d)	
	WLA	Loading Capacity
LOADING CAPACITY FOR ENTIRE COLUMBIA RIVER BASIN		5.97
Columbia River Basin above Washington/Canada border		
Watershed target		2.31
Estimated Canadian Loading including Celgar mill	[0.31] ¹	
Snake River Basin above Ice Harbor Dam		
Watershed target		1.18
Pulp Mill WLAs: Potlatch (Lewiston, ID)	0.39	
Willamette River Basin above confluence with Columbia R.		
Watershed target		0.54
Pulp Mill WLAs: Pope & Talbot (Halsey, OR)	0.19 ²	
Remainder of Columbia R. Basin		
Pulp Mill WLAs: Boise Cascade (Wallula, WA)	0.25	
James River (Comas, WA)	0.42	
Longview Fibre (Longview, WA)	0.08	
Weyerhaeuser (Longview, WA)	0.26	
Boise Cascade (St. Helens, OR)	0.27	
James River (Wauna, OR)	0.21	
TOTAL	1.49	
SUM OF WLAs FOR REGION X PULP MILLS IN BASIN	2.07	

¹ This is not a WLA, but is included for purposes of comparison with the WLAs for U.S. mills.
² This is the same WLA identified in ODEQ's NPDES permit (issued 11/7/90) for this facility.

Figure 4-1. Overall Division of Columbia River Basin Loading Capacity



APPENDIX A. LOADING CAPACITY

Waste load allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources represent the allocated portions of a receiving water's **loading capacity**. The loading capacity is the greatest amount of loading that the river can receive without violating water quality standards. A TMDL must not exceed the loading capacity of a waterbody. To determine the appropriate loading capacity available for allocation requires:

- the **water quality standard** applicable to 2,3,7,8-TCDD and the Columbia River basin.
- the **river flows** used to calculate the loading capacity of the Columbia River basin at key locations.

1. Applicable Water Quality Standards

The pollutant of concern for this TMDL, 2,3,7,8-TCDD, is the most toxic of a group of compounds known as polychlorinated dibenzo-para-dioxins. These compounds are produced as a result of human activities such as the manufacture of chlorinated herbicides, the combustion of domestic and industrial wastes, and the production of chlorine-bleached pulp.

Oregon, Washington, and Idaho have adopted water quality standards for toxic substances which apply to parts of the Columbia River basin including the Snake and Willamette Rivers. Because the purpose of this TMDL is to provide a framework for attaining all applicable water quality standards for dioxin, this multi-state TMDL must be protective of the waters with the most stringent of those standards. A brief description of individual state standards follows.

Oregon has adopted a numeric criterion for 2,3,7,8-TCDD. Oregon Administrative Rules (OAR) Chapter 340, Division 41 summarizes water quality criteria for toxic substances applicable to all basins. This includes the Columbia River from its mouth to river mile 309 and the Willamette River from its mouth to river mile 187. OAR 340-41-205(p)(B), for example, states:

"Levels of toxic substances shall not exceed the most recent criteria values for organic and inorganic pollutants established by EPA and published in Quality Criteria for Water (1986). A list of the criteria is presented in Table 20."

The ambient water concentration listed in Table 20 for protection of human health from carcinogenic effects caused by 2,3,7,8-TCDD is 0.000013 ng/L, or 0.013 parts per quadrillion (ppq). This value represents the 10⁻⁶ risk level, the concentration at which a lifetime exposure results in a probability of one excess cancer case per one million people. It considers the consumption of contaminated water as well as fish or other aquatic organisms.

Washington has identified the Columbia River from the mouth to river mile (RM) 596.6 as a Class A waterbody and from RM 596.6 to the Canadian border (RM 745) as a Class AA waterbody. Washington has also identified the Snake River from the mouth to RM 176.1 as a Class A waterbody. Washington's rules which apply to toxic substances are found in WAC 173-201-047. The narrative part of the rule indicates that:

"Toxic substances shall not be introduced above natural background levels in waters of the state which may adversely affect characteristic water uses, cause acute or chronic conditions to the aquatic biota, or adversely affect public health"

WAC 173-201-047 also states that appropriate concentrations for toxic substances in Washington are to be determined in consideration with EPA's **Quality Criteria for Water** (1986). In the process of developing its lists of degraded waters as required by §304(l) of the Clean Water Act, Washington interpreted its standard for 2,3,7,8-TCDD in a manner consistent with Oregon's numeric standard, i.e. 0.013 ppq of 2,3,7,8-TCDD as an ambient water concentration needed to protect human health.

Idaho has narrative standards which are intended to protect the beneficial uses of its waters including the Snake River. The standard, found in IDAPA 16.01.2200, states:

"As a result of man-caused point or nonpoint source discharge, waters of the State must not contain: 01. Hazardous materials ... in concentrations found to be of public health significance or to adversely affect designated or protected beneficial uses. 02. Deleterious materials ... in concentrations that impair designated or protected beneficial uses without being hazardous."

In the process of developing Idaho's §304(l) short list, EPA interpreted this standard also in a manner consistent with Oregon's numeric standard.

As stated above, this TMDL has been developed to achieve attainment of the water quality standards of all affected states. Although the wording of the applicable state standards for Idaho, Oregon, and Washington differs, EPA has interpreted these standards as being equally stringent. Even if this is not the case, however, 2,3,7,8-TCDD loading to upstream segments still must be restricted to levels ensuring the attainment of water quality standards applying to downstream segments.¹ Where this document refers to "the standard" or "the criterion" for 2,3,7,8-TCDD, this means the 0.013 ppq criterion at the 10^{-6} risk level and, by implication, the assumptions which form the basis of that criterion as established by EPA. That criterion, adopted by the State of Oregon, is the controlling water quality standard which this TMDL protects.

¹ The Superior Court of Washington for Thurston County recently found that the manner in which the State applied their water quality standards to the listing under §304(l) of three pulp and paper mills was invalid. EPA believes that this decision does not affect the use of 0.013 ppq as the water quality standard for dioxin in developing this TMDL because all waste load allocations and permit limits must ensure compliance with applicable water quality standards of downstream states [40 CFR §122.4(d)]. Oregon's water quality standard is clearly stated as being 0.013 ppq for 2,3,7,8-TCDD.

2. River Flow:

The loading capacity of a stream is determined using the water quality criteria value and a design flow for the receiving water. Typically, loads are expressed as chemical mass per time such as pounds per day. In the case of 2,3,7,8-TCDD, loads have been expressed as milligrams (mg) per day and are calculated as follows:

$$\text{Load (mg/day)} = 0.00245 * \text{Concentration (ppq)} * \text{Flow (cfs)}$$

The 0.00245 is the factor needed to convert the units of parts per quadrillion (ppq) and cubic feet per second (cfs) to milligrams per day (mg/day)

The design flow significantly affects the determination of the loading capacity. The choice of design flow used to calculate the loading capacity for the Columbia River basin was based on the characteristics of the 2,3,7,8-TCDD water quality criterion. That criterion, 0.013 ppq 2,3,7,8-TCDD, is based on human health concerns over a lifetime. In order to address human health concerns, the harmonic mean flow is recommended as the appropriate stream design flow (**Draft Technical Support Document for Water Quality-based Toxics Control**, U.S. Environmental Protection Agency, 1990).

The harmonic mean flow was used to develop this TMDL because it provides a more reasonable estimate than the arithmetic mean to represent long-term average river flow. Flood periods in naturally flowing rivers bias the arithmetic mean above flows typically measured. This overstates available dilution. The calculation of the harmonic mean, however, dampens the effect of peak flows. As a result, the bias is reduced. The harmonic mean is also an appropriate conservative estimate of long-term average flow in highly regulated river basins, such as the Columbia. In a regulated river basin, the harmonic mean and the arithmetic average are often much closer numerically.

Table A-1 summarizes the loading capacity for 2,3,7,8-TCDD in the Columbia River system at several key locations. A long-term flow record must be used in order to minimize the effect of either droughts or wet years. It is also important to recognize the effect that reservoirs have had on flows in the Columbia basin. Many of the major dams were constructed before 1950. Thus, flow records used to determine the loading capacity in the Columbia River were those reported by the U.S. Geological Survey from 1950 to present.

Table A-1. Loading Capacity for 2,3,7,8-TCDD in the Columbia River

Gage	Location	Drainage Area (sq.mi.)	Harmonic Mean Flow (cfs)	Loading Capacity (mg/day)
12399500	Columbia River at International Boundary	59,700	72,700	2.31
12472800	Columbia River below Priest Rapids	96,000	95,100	3.03
14019200	Columbia River at McNary Dam	214,000	143,000	4.54
14105700	Columbia River at The Dalles	237,000	152,000	4.83
14144700	Columbia River at Vancouver	241,000	159,000	5.04
14222880	Columbia River at Columbia City	254,000	180,000	5.73
14246900	Columbia River below Longview	256,900	188,000	5.97

Flows at three locations on the Columbia River were estimated because of inadequate long-term records. These locations are at Vancouver (gage #14144700), at Columbia City (gage #14222880), and below Longview (gage #14246900). The estimates were based on gaged flows from tributary rivers for the corresponding segments. Average flow yield from the tributaries for a particular segment was used to estimate flow from the ungaged portion of that segment. These gaged tributaries are listed in Table A-2.

Table A-2. Loading Capacity for 2,3,7,8-TCDD in the Columbia River Tributaries

Gage	Location	Drainage Area (sq.mi.)	Harmonic Mean Flow (cfs)	Loading Capacity (mg/day)
13343500	Snake River near Clarkston	103,200	35,700	1.14
13353000	Snake River below Ice Harbor Dam	108,500	37,000	1.18
14113000	Klickitat River near Pitt	1,297	1,207	0.04
14120000	Hood River near Hood River	279	612	0.02
14123500	White Salmon River near Underwood	386	951	0.03
14125500	Little White Salmon River near Cook	134	317	0.01
14128500	Wind River near Carson	225	514	0.02
14142500	Sandy River below Bull Run River	436	1,009	0.03
14143500	Washougal River near Washougal	108	234	0.01
14166000	Willamette River at Harrisburg	3,420	7,600	0.24
14211720	Willamette River at Portland	11,100	17,100	0.54
14220500	Lewis River near Ariel	731	2,396	0.08
14222500	East Fork Lewis River near Heisson	125	196	0.01
14223500	Kalama River near Kalama	198	618	0.02
14243000	Cowlitz River at Castle Rock	2,238	5,721	0.18

APPENDIX B. ALLOCATION ISSUES

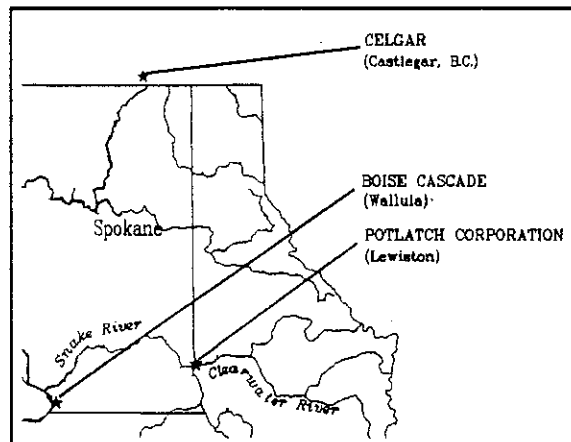
In determining appropriate allocation methods for the Columbia, several concerns have been identified that affect decisions on the TMDL. Issues identified which were considered in developing allocations for 2,3,7,8-TCDD to the Columbia River include:

- Loading from the **British Columbia pulp mill**
- Loading from **other potential sources** such as woodtreaters
- Fate, transport, and **attenuation**
- **Role of bottom sediments** (cumulative effects and resuspension)
- Framework for addressing **future allocations** (both growth within the pulp industry and allocations to other source categories)

1. **British Columbia Pulp Mill**

Celgar Pulp Company operates a bleached kraft pulp mill located in Castlegar, British Columbia. Wastewater from this mill is discharged to the Columbia River approximately 30 miles upstream from the United States - Canada border (Figure B-1). Studies conducted by Canadians have shown elevated concentrations of 2,3,7,8-TCDD in lake whitefish collected below the Celgar mill (Mah *et al.*, 1989; EVS, 1990). In addition, follow-up analyses by the Washington Department of Ecology of fish from Lake Roosevelt found elevated levels of TCDD and TCDF (Johnson, 1990). Lake Roosevelt is the impoundment formed by Grand Coulee Dam on the Columbia River downstream from the Celgar mill. Because of concern over the amounts of TCDD and TCDF detected in fish tissue, the Washington Department of Health took action in August 1990. A health advisory was issued that children under age four and under 40 pounds should not eat whitefish from Lake Roosevelt. Subsequent sampling by the Washington Department of Ecology suggests that concentrations of 2,3,7,8-TCDD may also be elevated in sturgeon as well.

Figure B-1. Location of Celgar Pulp Co. (Castlegar, B.C.)



The discovery of elevated levels of dioxins and furans below Celgar and other British Columbia pulp mills resulted in action by the Canadian government. New regulations under the Canadian Environmental Protection Act (CEPA) have been proposed to regulate the discharge of chlorinated organics. The Canadian federal government is proposing limits of non-detectable amounts of dioxins and furans by January 1994. In addition, the Province of British Columbia (B.C. Environment) has adopted regulations to control adsorbable organic halides (AOX) discharged from bleached kraft pulp mills. The control of AOX requires reductions in the use of chlorine which, in turn, decreases the formation of dioxins and furans. The new regulations require that, by 1993, AOX be limited to 2.5 mg per metric tonne of pulp produced.

Over the past decade, the B.C. Ministry of Environment has been trying to get various owners of the Celgar pulp mill to resolve water pollution problems caused by their failure to meet waste permit requirements. The identification of chlorinated organics as a health issue has resulted in increased urgency on the part of the Canadians to install pulping technology and effluent treatment works to resolve problems. To meet these government requirements, Celgar has proposed a mill modernization effort.

The most recent measurements of effluent quality discharged by the Celgar mill were obtained during the Canadian Pulp and Paper Association survey (CPPA, 1990). Information on present and projected levels of 2,3,7,8-TCDD and -TCDF have been provided by Celgar. These are summarized in Table B-1. The load measured in early 1990 from the Celgar pulp mill is less than 1.37 mg/day. Since this survey, the mill has made several improvements that were designed to further reduce dioxin and furan levels in the effluent. Results of the follow-up sampling will be available later this year. The amount of 2,3,7,8-TCDD measured from the Celgar mill in the 1990 survey is significantly less than the loading capacity of 2.3 mg/day for the Columbia River at the International Boundary. This does not consider other potential sources upstream of the border. However, no other sources have been identified where 2,3,7,8-TCDD has been detected.

Table B-1. Concentrations of TCDD and TCDF from Celgar Pulp

	2,3,7,8-TCDD		2,3,7,8-TCDF	
	Concentration (ppq)	Load (mg/day)	Concentration (ppq)	Load (mg/day)
CPPA 1990 Survey	ND (14)	< 1.37	310	30.4
Projected after modernization (from bleach plant)		< 0.0485		< 0.0485

Celgar is also seeking government approval to increase the mill's production from 560 to 1200 air dried metric tonnes of pulp per day. B.C. Environment recently completed public hearings regarding the proposed Celgar pulp mill expansion project. Modifications to the mill's production process are being proposed which include oxygen delignification, 70% substitution of chlorine dioxide for chlorine, and hydrogen peroxide bleaching followed by primary and secondary effluent treatment. The improvements to the Celgar mill are expected to be in place by 1994. Concentrations of TCDD and TCDF in the bleach plant effluent are expected to be below detection limits of 10 ppq. Maximum daily discharges after modernization are expected to be <0.05 mg/day for TCDD and <0.05 mg/day for TCDF (Celgar, 1990). Recognizing problems in the past, B.C. Ministry of the Environment has stated that: "Either Celgar will have to significantly upgrade pollution control technology in their existing mill to achieve compliance or they will face heavy penalties for breaking the law."

Several of the U.S. mills criticized the proposed TMDL (June 15, 1990) for a perceived lack of equity with Canada. The final TMDL estimates a loading of 0.31 mg/day from Celgar. This is equal to the loading which would be allocated to Celgar if it were a mill in Region 10. This accounts for Celgar's planned production after modernization (see Table 3-2) and applies a factor of 0.257 $\mu\text{g/day}$ of 2,3,7,8-TCDD discharged per ton of bleached pulp. This is the same factor used to calculate the WLAs for the Region 10 mills. This is not a WLA but rather an estimated loading. This estimate provides a margin of safety to cover other unidentified sources in Canada and/or a possible shortfall in Celgar's attainment of the projected 0.05 mg/day loading. As additional information is assembled, this preliminary estimate may be refined.

2. Other Potential Sources

The development of the TMDL needs to consider all potential sources of 2,3,7,8-TCDD in the Columbia drainage. Besides chlorine bleaching pulp mills, other potential source categories include woodtreaters, major municipal wastewater treatment plants, agricultural areas, industrial sites, and urban areas. Table B-2 summarizes potential sources of TCDD in the Columbia, the type of available information on loading rates, and median fish tissue concentrations from the National Bioaccumulation Study (NBS) associated with the source category. The NBS was conducted as a screening investigation to determine the prevalence of selected bioaccumulative pollutants in fish. One of the study objectives was also to identify general correlations between fish tissue concentrations and sources of these pollutants.

The NBS results, listed in Table B-2, clearly indicate that the highest levels of TCDD contamination in fish were found in areas below chlorine bleaching pulp mills. However, two other site categories from the NBS in the Columbia basin which were not immediately below pulp mills had elevated levels of TCDD in fish. Both sites are located in the north Portland area. One of the sites, Columbia Slough, is affected by nonpoint sources, predominantly urban runoff and a landfill. The other site is located below a major woodtreating operation (McCormick & Baxter) which uses pentachlorophenol (PCP). TCDD contamination has been associated with PCP.

Table B-2. Potential Sources of 2,3,7,8-TCDD in the Columbia Basin

Source Category	Availability of Data for Region 10	National Bioaccumulation Study Comparative Results (from draft report)
		Median Conc. (ppt)
Chlorine Bleaching Pulp & Paper	104 mill study	4.73
Non-Chlorine Bleaching Pulp & Paper	N/A	1.30
Superfund Sites	Remedial Investigations	1.47
Woodtreaters, Incinerators, etc.	TRI, DMR	1.39
Other Industrial Sites	N/A	1.27
Urban Areas	N/A	1.27
Municipal Wastewater Treatment Plants	Sewage Sludge Survey	0.64
Agricultural Areas	N/A	0.56
Other Sites	N/A	0.63

Note: N/A - Not Available
 TRI - Toxics Release Inventory (PCP)
 DMR - NPDES Discharge Monitoring Reports (PCP)

Woodtreaters:

A number of current and former wood treatment facilities exist in the Columbia River basin where pentachlorophenol (PCP) has been used as a preservative. A potential source of 2,3,7,8-TCDD from woodtreating facilities is contaminated PCP. Thirteen sites near former or existing woodpreserving facilities were sampled during the National Bioaccumulation Study. The median 2,3,7,8-TCDD concentration in fish tissue at these sites was 1.39 ppt (compared to 4.73 for the chlorine bleaching pulp mills). Of the thirteen sites sampled nationally near woodtreaters, only one was in the Columbia River basin: the Willamette River at Portland (below McCormick & Baxter). Three species of aquatic organisms were sampled at that site with the following results:

<u>Species</u>	<u>2,3,7,8-TCDD</u>
Largemouth Bass	0.74 ppt
Sucker	2.22 ppt
Crayfish	2.61 ppt

The values for this site are higher than the median for the NBS. However, organisms collected from this location are also influenced by other potential sources of 2,3,7,8-TCDD, such as urban runoff.

These measured values reflect the need to evaluate information on the potential discharge of 2,3,7,8-TCDD from woodtreating facilities. EPA has recently developed a data system which contains information from the Toxics Release Inventory (TRI). A retrieval of reported releases of PCP for 1987 identifies seven facilities (woodtreaters) in the Columbia Basin (Table B-3). Five of these facilities are located in the Willamette drainage. Although the TRI information does not contain data on TCDD, the indicated releases of PCP lead to concern over woodtreaters, particularly in the Willamette basin. DMR data and inspection reports describing PCP discharges are also available for

several woodpreserving facilities with NPDES permits in the Columbia basin.

Table B-3. PCP Discharges from Columbia Basin Woodtreating Facilities

Cataloging Unit	Facility Name	Location	NPDES DMR Data	TRI Data (lbs. PCP released)	
				1987 (Water) (Total)	1988 (Water) (Total)
17010214	B.J. Carney	Sandpoint, ID			
17010214	L.D. McFarland	Sandpoint, ID		C 1,850	C 500
17010216	Poles, Inc.	Oldtown, ID			
17010305	B.J. Carney Industries, Inc.	Spokane, WA			
17020003	Chewelah Log and Post	Chewelah, WA			
17020003	Colville Post and Pole	Colville, WA			
17040201	Garland Pole Co.	Idaho Falls, ID			
17040219	Penta Post	Gooding, ID			
17050114	Pressure Treated Timber	Boise, ID			C 7
17050114	Roundy Pole Fence Co.	Eagle, ID			
17070105	J.H. Baxter & Co.	The Dalles, OR			
17080001	Allweather Wood Treaters	Washougal, WA			
17080001	Exterior Wood, Inc.	Washougal, WA			
17080001	Pacific Wood Treating	Ridgefield, WA	I/R	250 2,300	8 1,500
17080003	International Paper Co.	Longview, WA			
17090001	Jasper Wood Treating	Jasper, OR			
17090003	J.H. Baxter & Co.	Eugene, OR	X	250 1,250	200 202
17090003	L.D. McFarland	Eugene, OR	X	250 1,500	8 750
17090008	Taylor Lumber & Treating	Sheridan, OR	o	250 13,488	8 2,150
17090010	Dant & Russell	North Plains, OR			
17090010	Permapost	Hillsboro, OR		0 250	
17090012	McCormick & Baxter	Portland, OR	X	31 6,999	150 154

Notes TRI data for releases of PCP to: Water (discharge)
Total (includes water, air and land disposal)

B : 1 - 499 lbs.
C : No discharge to water identified
I/R : Inspection Report
X : Loads calculated for PCP
o : Only PCP concentration reported

The preamble to a proposed RCRA rule relating to the wood preserving industry (53 FR 53292, December 30, 1988) describes ranges of chlorinated dibenzodioxin and chlorinated dibenzofuran as well as PCP concentrations in wastewaters from woodtreating facilities. Thus, an estimate of potential 2,3,7,8-TCDD releases from woodtreating facilities can be made based on data on PCP discharges. The TRI data were considered in estimating TCDD wastewater releases from woodtreaters. However, there are some apparent problems. Several facilities, for instance, reported zero discharge to water while others reported the same value of 250 pounds. DMR data, on the other hand, appear to provide better information on PCP discharges. Applying assumed ratios of 2,3,7,8-TCDD per unit PCP (derived from Table 7, 53 FR 53292) to the DMR data, EPA estimates that 1 - 2 mg/day 2,3,7,8-TCDD could be originating from woodtreating operations in the Columbia basin. This estimate includes the potential release from facilities where no DMR or TRI data exists.

Levels of 2,3,7,8-TCDD observed in fish and sediments below one major woodtreating operation plus estimates of potential loads point to the need for additional data. Any allocation scheme used to develop the TMDL must leave room for these facilities. Using available information, a range of 1 - 2 mg/day appears to be a reasonable estimate. However, this estimate is preliminary and data are still being generated. As additional information is assembled, this estimate may be refined. Most of the released 2,3,7,8-TCDD is associated with site run-off during rainfall. Thus, the loading from woodtreaters could be reduced by implementing stormwater controls.

Municipal Wastewater Treatment Facilities:

National data demonstrate that the sludges removed from some municipal wastewater treatment plants contain dioxins and furans. Generally, octa-chlorinated forms predominate the dioxins found in these sludges, although 2,3,7,8-TCDD has also been detected. Where sludges are contaminated, the wastewater discharges could also contain 2,3,7,8-TCDD. Testing performed for 2,3,7,8-TCDD in sludge nationally included five municipal wastewater treatment plants in the Columbia basin ("National Sewage-Sludge Survey Facility Analytical Results", U.S. Environmental Protection Agency, 1989). Results for these five facilities are listed in Table B-4.

Table B-4. Columbia Basin Sludge Testing for 2,3,7,8-TCDD

Cataloging Unit	Facility Name	Location	2,3,7,8-TCDD (ng/kg)	Detection Limit
	<u>Municipal WWT's</u>			
17050114	West Boise STP	Boise, ID	ND	(4.7)
			ND	(6.1)
17080001	Columbia Blvd. STP	Portland, OR	ND	(16.0)
			ND	(8.9)
17090005	Stayton STP	Stayton, OR	ND	(23.0)
17090006	Lebanon STP	Lebanon, OR	3.3	---
			2.2	---
17090012	Tryon Creek STP	Lake Oswego, OR	ND	(57.0)
			ND	(43.0)
	<u>Chlorine Bl. Mills</u>			
17060306	Potlatch Corp.	Lewiston, ID	78.0	---
17070101	Boise Cascade	Walla Walla, WA	70.0	---
17080001	James River	Camas, WA	12.0	---
17080003	Boise Cascade	St. Helens, OR	4.2	---
17080003	Longview Fibre	Longview, WA	69.0	---
17080003	Weyerhaeuser	Longview, WA	25.0	---
			35.0	---
17080003	James River	Wauna, OR	19.0 (pri.)	---
			89.0 (sec.)	---
17090003	Pope & Talbot	Halsey, OR	31.0	---

Of the five municipal facilities whose sludges were examined in the Columbia basin, only one had detectable levels of 2,3,7,8-TCDD. This indicates that the TMDL should leave some room for potential allocations to municipal sewage treatment plants. Analytical results for this treatment plant, however, show that the detected concentration was at levels much lower than sludge tested at chlorine bleaching pulp mills (Table B-4). Thus, it can be expected that load estimates for municipal facilities will be much lower than the loads allocated to the pulp mills based on the sludge data.

Initial estimates of 2,3,7,8-TCDD discharged from municipal wastewater treatment facilities can be made using available data. Permitted total suspended solids for each facility and an assumed average 2,3,7,8-TCDD concentration in municipal sludge form the basis of these calculations. The analysis also assumes that chlorinated dioxins / furans found in municipal sludge are associated with effluent solids at the same concentrations. The average 2,3,7,8-TCDD concentration detected was 2.8 ng/kg. The permitted total suspended solids load from Region 10 municipal wastewater treatment plants in the Columbia Basin is over 170,000 pounds per day. Based on this information, these municipal wastewater treatment facilities could, as a group, contribute an average of 0.2 mg/day 2,3,7,8-TCDD. As additional information is assembled, this preliminary estimate may be refined.

Other Industrial Sources:

Non-chlorine bleaching pulp mills (Table B-5) and other potential industrial sources also need to be considered in the allocation process. No data has been presented on 2,3,7,8-TCDD concentrations in either wastewater or sludges for Columbia basin non-chlorine bleaching pulp mills. Another potential industrial source of 2,3,7,8-TCDD is Rhone-Poulenc, located in north Portland. This plant has produced chlorophenolic herbicides since 1956. The facility discharges boiler blowdown, cooling water, site runoff, and treated groundwater to the Willamette River (across from McCormick & Baxter). The effluent is known to contain chlorinated phenols, although 2,3,7,8-TCDD was not detected during a National Dioxin Study.

Table B-5. Non Chlorine Bleaching Pulp Mills in the Columbia Basin

Cataloging Unit	Facility	Location
17010305	Inland Empire Paper Co.	Spokane, WA
17080001	Boise Cascade Corp.	Vancouver, WA
17090003	Willamette Industries	Albany, OR
17090004	Weyerhaeuser	Springfield, OR
17090007	Smurfit Newsprint	Newberg, OR
17090012	James River II	West Linn, OR
17090012	Smurfit Newsprint	Oregon City, OR

An estimate of loadings from these sources cannot be determined at this time. With respect to non-chlorine bleaching pulp mills, an analysis cannot be conducted because no data has been identified which describes 2,3,7,8-TCDD in either effluents

or sludges. As to Rhone-Poulenc, available data from the National Dioxin Study showed non-detect for 2,3,7,8-TCDD. However, the detection limits were higher than present day limits. As additional information is gathered, it will be possible to estimate loadings from these sources.

3. Fate, Transport, and Attenuation

Losses of 2,3,7,8-TCDD in the water column can occur through sedimentation (see discussion in next section), photolysis, and volatilization, as well as through uptake by aquatic organisms. 2,3,7,8-TCDD's structural properties, laboratory bioconcentration experiments, and field observations also indicate a strong potential for bioaccumulation. Thus, the role of these processes needs to be expressed in terms of potential bioavailability. Limited information exists which can be used to provide initial estimates on the effects of fate, transport and attenuation in the Columbia River system. Readily available, quality data have been considered. This includes information from the Northwest Pulp & Paper Association's Columbia River Fish Study (1989), from EPA's National Bioaccumulation Study (1987), from the Washington Department of Ecology's work on Lake Roosevelt (1989-90), and from efforts in Canada.

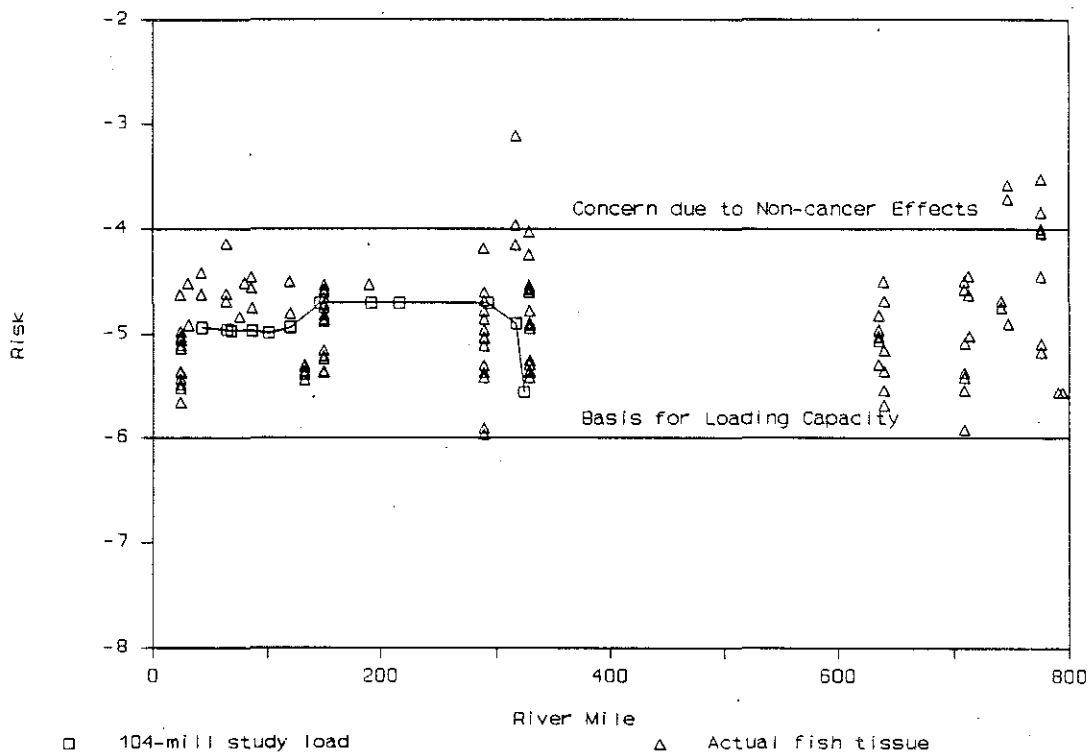
Several approaches exist to evaluate the effects of fate, transport, and attenuation. Water quality models, using a variety of assumptions, can be used to assess ambient data and to evaluate the need for additional controls. Available analytical tools range from simple estimates to complex data-intensive dynamic models. Analyses can include a loss rate which considers potential adsorption of TCDD on particulate matter within the water column. The potential release of TCDD from the sediment to the overlying water or the potential effect of sediment bound TCDD on the benthic and aquatic life food chain must also be considered. However, quantitative predications of bioaccumulation for specific cases and regulatory actions are complicated by many uncertainties. These uncertainties include the degree of partitioning between dissolved and bound phases, definition of the food chain structure plus bioenergetic parameters, and the relative importance of other fate and transport phenomena.

The Clean Water Act specifically states that TMDL's shall be established with a margin of safety which takes into account any lack of knowledge. Based on the lack of knowledge concerning attenuation of TCDD in the Columbia River basin, assumptions must be made with respect to attenuation in determining the loading capacity of the system and allocations of that capacity. A review of comments received on the proposed TMDL did not provide conclusive evidence that net attenuation occurs. Although TCDD may be lost to the sediments, that loss may only be temporary because of resuspension, desorption, or biological uptake directly from the sediments.

Figure B-2 superimposes predicted fish tissue concentration data on a graph of the actual (measured) fish tissue data plotted in Figure 2-1 in Section 2 of this document. Water column concentrations of 2,3,7,8-TCDD were modeled based on (1) the results of TCDD sampling in source effluents (the "104-Mill Study"), (2) receiving

water dilution calculated from the harmonic mean flows at the discharge points, and (3) an assumption of no net attenuation. Predicted fish tissue concentrations were then calculated using a bioconcentration factor of 5,000 (the factor used in developing the water quality criterion). As in Figure 2-1, all fish tissue concentrations (both measured and predicted) are displayed in terms of estimated cancer risk based on the factors used to calculate EPA's water quality criterion for 2,3,7,8-TCDD. Both the 10^{-6} and 10^{-4} risk levels are identified. The 10^{-6} risk level corresponds to the 0.013 ppq ambient 2,3,7,8-TCDD concentration which is the basis of the TMDL, while 10^{-4} represents a level of possible concern due to non-cancer effects. Note that the line plotted between data predicted based on an assumption of no net attenuation closely follows the data points based on directly measured fish tissue concentrations:

Figure B-2. Columbia River Fish Tissue: TCDD



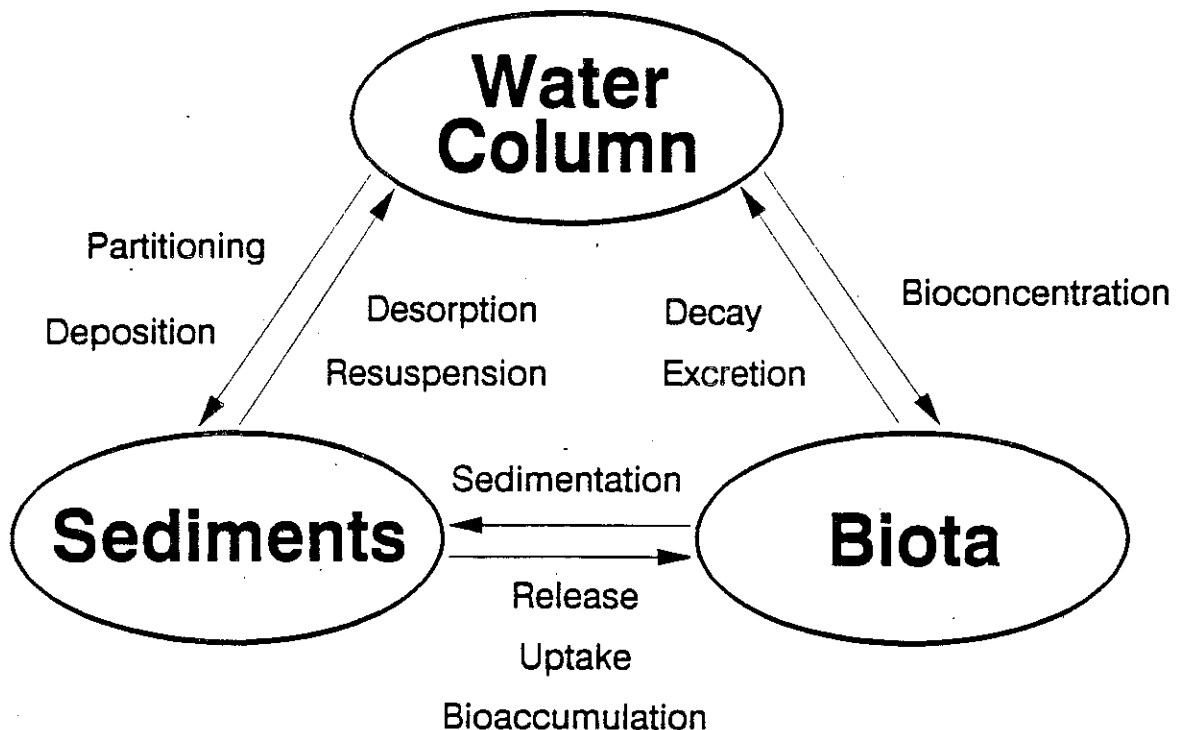
Based on the comparison in Figure B-2 of predicted tissue concentrations with observed values, an assumption of no net attenuation appears to be reasonable. Thus, for purposes of developing this TMDL, all 2,3,7,8-TCDD discharged is assumed to remain in the water column and remain biologically available. Because this is a conservative assumption, this TMDL should lead to the attainment of water quality standards regardless of the actual level of attenuation. If future studies quantify a net attenuation rate, allocations can be modified to reflect this. This capacity could be used to provide an increased margin of safety to account for unknown sources, increase allocations for existing sources, or accommodate future growth needs. By the same token, if studies indicate that TCDD releases from historical accumulations in

the sediments constitute a problem, tighter controls may be needed (see discussion in following section).

4. Role of Bottom Sediments

Sediment concentrations are the result of a complex series of interactions between TCDD, the overlying water column, solids, aquatic organisms, and the external loading of TCDD. Because of the hydrophobic nature of dioxin, there is a tendency for TCDD to move from the water column to the sediments and aquatic biota. Although attenuation may result in a net loss of TCDD from the water column, the potential also exists for the sediments to act as a source of dioxin through the release of TCDD which has accumulated (Figure B-3).

Figure B-3. Exchange of TCDD Between Water Column, Sediments, and Biota



Some fraction of the TCDD which enters a river is quickly associated with solids. The adsorption of TCDD to particulate matter may ultimately determine levels in fish tissue. There are a number of different theories about the role of equilibrium partitioning and bioaccumulation from contaminated sediments. The fate of TCDD in the aquatic environment is increasingly being discussed in terms of food chain mechanisms. Dioxins are believed to be adsorbed to bacteria, fungi, and organic sediment particles. These particles are eaten by filter-feeding benthic invertebrates which in turn are consumed by fish.

In addition, solids tend to settle to the bottom of the receiving water. In areas where the river is not filling in, these particles (and the TCDD associated with them) will continue to be carried downstream as either bedload or resuspended sediments. In areas of sediment accretion, typically where river velocities are diminished, TCDD will tend to accumulate in the bottom sediments where it may be available to aquatic organisms. Resuspension of sediments either through high streamflows, boat traffic, or dredging activities must also be considered.

Current knowledge of the Columbia system is not adequate to determine the availability of TCDD associated with particulate matter to benthic organisms or fish on a basin-wide basis. Existing sediment concentrations probably reflect a combination of both current and historical discharges of TCDD. Because the Region's pulp mills have implemented some process changes recently, such as the use of different defoamers, it is unlikely that existing sediment contamination levels are in equilibrium with current loadings to the basin. Also, if desorption of dioxin occurs slowly, it may take several years to observe the effect of reduced discharges in sediments and in biota.

Limited sediment sampling for dioxin has been done in the Columbia system. Data collected in the mainstem Columbia River below Bonneville Dam have not detected 2,3,7,8-TCDD. However, current detection limits may be above the level of concern considering the low organic content of the sediments analyzed. TCDD has been detected in Willamette River sediments below a woodtreating operation. These spatial differences reflect both physical characteristics and the influence of specific sources. Thus, future studies on the effect of sediments should address site-specific concerns.

Given these conditions it would not be appropriate to assume a permanent loss of 2,3,7,8-TCDD through sedimentation. Indeed, a portion of the loading capacity should remain unallocated to account for potential release from the sediments and from TCDD currently stored in the food chain. As indicated in the discussion on attenuation, tighter controls will be needed if data show that the cumulative effects of historical discharges significantly delay attainment of TCDD standards under the reduced loadings required by this TMDL.

5. Future Allocations

TMDLs may provide a framework for dealing with future allocations. Examples include the assignment of any unallocated portion of the loading capacity to specific point or nonpoint sources. Future growth of the pulp industry in the Columbia River basin, either expansion of existing mills or new mills, is a possibility which should be considered in this TMDL.

Developing an equitable framework for future allocations is not an easy task. This TMDL reserves a portion of the loading capacity as unallocated for 2,3,7,8-TCDD to account for uncertainties and to provide for future growth. As uncertainties are reduced, the amount held back can be made available to other sources or for additional future growth. Decisions on the use of the unallocated load will be made on

a case-by-case basis by EPA in consultation with the affected States. If proposed projects are not consistent with this TMDL, a revised TMDL would need to be established before the proposed increased loadings could be allowed.

APPENDIX C. WASTE LOAD ALLOCATION METHODS CONSIDERED

In developing the proposed TMDL, several alternative waste load allocation methods were considered for allocating portions of the loading capacity to chlorine bleaching pulp mills. These alternatives were presented in the Decision Document for the proposed TMDL to illustrate the effect of assumptions made on resulting WLAs and to stimulate public consideration of the pros and cons of alternative allocation scenarios. Included in the presentation of options was one preferred alternative.

There was no information received during the public comment period which has caused EPA to change its decision about the preferred allocation method (Option 4, Table C-2). Two additional options were suggested, however. These were: (1) allocate the entire loading capacity to the bleaching pulp mills, and (2) require zero discharge of dioxin from the pulp mills. The first suggestion is clearly inappropriate since other sources, which are presently difficult to control, would cause the loading capacity of the system to be exceeded. Appendix B includes additional discussion and estimates of sources other than chlorine bleaching pulp mills which supports the likelihood of this exceedence. The zero discharge option is also further discussed in this document and in the response to comments. Zero discharge is not necessary in order to meet water quality standards for dioxin in the Columbia River basin.

For the convenience of the public, the discussion of options contained in the Decision Document for the proposed TMDL is repeated here. The alternative approaches considered fall into several different categories which include:

- Equal Effluent Concentrations
- Equal Mass Discharge per Unit Production
- Equal Percent Reduction

Equal Effluent Concentrations:

One allocation option is to set an equal effluent concentration for each pulp mill which uses chlorine bleaching. The resultant cumulative load is the portion of the loading capacity allocated to chlorine bleaching pulp mills located in EPA Region 10. Some margin of safety is then provided by the difference between the loading capacity and the WLAs to the chlorine bleaching pulp mills in the Columbia basin of Region 10. The unallocated amount depends directly on the effluent concentration selected.

A starting point is to look at a long term average effluent limit of 10 ppq (the current general method detection limit) at each mill. This limit is initially applied at the

point of discharge. Total plant effluent flows are used as a basis to calculate loads. Discharge monitoring report (DMR) data have been summarized and includes average effluent discharge rates.

Using a long term average effluent limit of 10 ppq applied at the point of discharge and current estimates of monthly average flow at each mill, the cumulative load from all the mills equals 11.7 mg/day (Table B-1). This is greater than the loading capacity of 5.97 mg/day. Consequently, this option must be rejected because water quality standards would not be met under conservative assumptions, such as no attenuation. In addition, this would not account for any 2,3,7,8-TCDD from other sources. Thus, more restrictive controls are needed.

A permit condition set at a level below the general analytical detection limit creates a situation where it is difficult, if not impossible, to determine compliance. Because dioxins and other chlorinated organic compounds are produced in the bleach plant, concentrations of 2,3,7,8-TCDD are higher in the combined bleach plant flow than in the total plant effluent. This means that waste load allocations which result in total plant effluent concentration limits that are below the general analytical detection limit could be monitored for compliance by measuring concentrations in the combined bleach plant waste stream. Using estimates of bleach plant flows and a long term average limit of 10 ppq in the combined bleach plant flow, the cumulative load is 3.7 mg/day or approximately 62 percent of the total loading capacity (Table B-1). Although this option yields a cumulative load from chlorine bleaching pulp mills which is less than the loading capacity, several concerns exist:

- there is very little room for allocations to other potential sources, such as woodtreaters or the mill in British Columbia (estimates described in Appendix B indicate current loadings from other sources would exceed the unallocated portion of the loading capacity)
- there would be no margin of safety
- future growth in the pulp & paper industry is not addressed

For these reasons, the possibility of yet lower effluent limits was evaluated. This was accomplished by setting a "maximum" concentration of 10 ppq, rather than using a long term average of 10 ppq. To understand how this results in a lower allocation, the relationship between the waste load allocation (WLA) and the actual permit limits must be examined. In certain cases, permit limits will be different than WLA values. Because the criteria for 2,3,7,8-TCDD is set to protect human health, the loading capacity (and WLAs) reflect a long term average. It is important to consider how the WLAs address variability in effluent quality. Permit limits are set at the upper bounds of acceptable performance and are values not to be exceeded. Requirements are usually expressed using two types of permit limits, either daily maximum or monthly average. Procedures have been developed for computing monthly average permit limits from long term average WLAs in EPA's TSD ("Technical Support Document for Water Quality-based Toxics Control", U.S. Environmental Protection Agency, 1985).

Assuming a coefficient of variation (C.V.) of 0.6 describes the effluent variability for 2,3,7,8-TCDD from pulp mills¹ and one sample required to be taken per month, a monthly average permit limit of 10 ppq converts to a long term average WLA value of 4.7 ppq. Using estimates of bleach plant flows and 4.7 ppq as the long term average concentration limit for the combined bleach plant flow, the cumulative load is 1.8 mg/day or just over 30 percent of the total loading capacity. This leaves nearly 70 percent of the loading capacity available to cover loadings from other potential sources. This approach also results in more than a 95 percent reduction in 2,3,7,8-TCDD discharged from these pulp mills when compared to estimates of current loading based on results of the 104 mill study.

Table C-1. Waste Load Allocations for Chlorine-Bleaching Pulp Mills

Production (tons/day)	Percent	Option 1 TCDD WLA (mg/day)	Option 2 TCDD WLA (mg/day)	Option 3 TCDD WLA (mg/day)	Mill
1,509	17.2	1.42	0.71	0.33	Potlatch -- Lewiston, ID
957	10.9	0.76	0.14	0.06	Boise Cascade -- Wallula, WA
1,650	18.8	2.20	0.87	0.41	James River -- Camas, WA
310	3.5	2.37	0.23	0.11	Longview Fibre -- Longview, WA
1026	11.7	2.01	0.57	0.27	Weyerhaeuser -- Longview, WA
1500	17.1	0.19	0.19	0.19	Pope & Talbot -- Halsey, OR ²
1,035	11.8	1.29	0.64	0.30	Boise Cascade -- St. Helens, OR
800	9.1	1.44	0.36	0.17	James River -- Wauna, OR
7,837	100.0	11.67	3.72	1.84	<u>TOTAL</u> Source Category Allotment

Option 1: Set Equal Long Term Average Effluent Concentration of 10 ppq at Point of Discharge

Option 2: Set Equal Long Term Average Effluent Concentration of 10 ppq at Bleach Plant

Option 3: Set Equal Long Term Average Effluent Concentration of 4.7 ppq at Bleach Plant

¹ A C.V. of 0.6 is recommended in EPA's TSD ("Technical Support Document for Water Quality-based Toxics Control", U.S. Environmental Protection Agency, 1985) for situations where there is insufficient data to estimate a C.V. for a specific pollutant from a specific industrial process. In the fact sheet accompanying the public notice for the draft TMDL, EPA solicited information of use in developing a more appropriate C.V., if available, from the public. No such information was provided.

² The WLAs listed for Pope & Talbot under all options have been adjusted to the long term average of 0.19 mg/day identified in the NPDES permit issued by the Oregon Department of Environmental Quality (November 7, 1990).

Equal Mass Discharge per Unit Production:

A disadvantage of equal effluent concentrations based on current flow rates is that it may not be equitable for all mills. A common approach for industrial permits is to consider production levels in establishing effluent limits. To provide for more equity, each mill could be allocated an equal amount of 2,3,7,8-TCDD for discharge per quantity of bleached pulp produced. One way to accomplish this is to associate bleach plant flow rates with production quantity of bleach pulp. In estimating bleach plant flows, the Washington Department of Ecology used 14,470 gallons of wastewater generated per ton of bleached pulp produced. Applying this figure to calculate bleach plant flows and 4.7 ppq as the long term average concentration limit for the combined bleach plant flow, the cumulative load is 2.07 mg/day (Table B-2) or approximately 35% of the total loading capacity.

Table C-2. Waste Load Allocations for Chlorine-Bleaching Pulp Mills

(Option 4: Set Equal Long Term Average Effluent Concentration of 4.7 ppq at Bleach Plant and Set Flows at 14,470 gallons / ton bleached pulp)

Production (tons/day)	Percent	TCDD WLA (mg/day)	Mill
1,509	17.2	0.39	Potlatch -- Lewiston, ID
957	10.9	0.25	Boise Cascade -- Wallula, WA
1,650	18.8	0.42	James River -- Camas, WA
310	3.5	0.08	Longview Fibre -- Longview, WA
1026	11.7	0.26	Weyerhaeuser -- Longview, WA
1500	17.1	0.19	Pope & Talbot -- Halsey, OR ¹
1,035	11.8	0.27	Boise Cascade -- St. Helens, OR
800	9.1	0.21	James River -- Wauna, OR
7,837	100.0	2.07	<u>TOTAL</u> Source Category Allotment

Although this is an increase of 0.13 mg/day over that shown in Table 5-5, the approach does address one major problem with using current bleach plant flows. Mills have been encouraged to recycle internal waste streams to the maximum extent possible. One example, Boise Cascade at Wallula, practices extensive recycling. Under the equal effluent concentration method, a mill that does a high level of recycling receives a lower allocation. However, a mill that does not make efficient use of water in the bleach plant benefits from a high allocation. This is a major reason for relating bleach plant flows to pulp production when determining allowable loads. This

¹ The WLA listed for Pope & Talbot has been adjusted to the long term average of 0.19 mg/day identified in the NPDES permit issued by the Oregon Department of Environmental Quality (November 7, 1990).

approach still results in more than a 95 percent reduction in 2,3,7,8-TCDD discharged from these mills when compared to results of the 104 mill study. Based on the evaluation in Appendix B, this reduction, although less than obtained by Option 3, is still sufficient to achieve total 2,3,7,8-TCDD loadings to the basin which are less than the loading capacity.

Equal Percent Reduction:

Another option considered is **equal percent reduction for all source categories**. Because there is an absence of specific data for loadings of TCDD to the Columbia, this approach can be viewed in several different ways. The first could use information on the relative magnitude of 2,3,7,8-TCDD in fish collected below potential sources of dioxin. Using median tissue concentrations summarized in Table A-1 as a general indicator of these relative contributions, thirty-six percent (36%) of the loading capacity could be attributed to chlorine bleaching pulp production. The remaining sixty-four percent (64%) could be attributed to other sources, such as municipal wastewater treatment plants or agricultural areas. This analysis excludes refineries because this industry is not known to be a significant source in the Columbia drainage. Although this approach does offer some advantages by accounting for other source categories, there are some major drawbacks. These include:

- NBS was intended as a screening study and not to describe source category loadings
- fish sampled nationally were collected from streams of varying sizes and did not account for dilution
- results of NBS associated with certain source categories may also include other sources (i.e. a site directly below a municipal wastewater treatment plant may also be 30 miles below a bleached kraft pulp mill)

Another option suggested is to use values of 2,3,7,8-TCDD measured in Columbia River fish and the bioconcentration factor used to develop the water quality criterion (0.013 ppq) to "back calculate" current TCDD loads. Although it may be possible to estimate the relative magnitude of present plus historic TCDD loading by looking at tissue concentrations, other factors besides a weighted average bioconcentration factor of 5000 must be considered. For instance, bioconcentration factors specific to the species should be evaluated. The age of the fish and lipid content of the samples must also be taken into account. The 5000 bioconcentration factor used to develop the criterion is intended to represent the weighted average factor for the species mix and lipid content in the "average" American fish / shellfish diet. The lack of species-specific bioconcentration data, as well as the difficulty in distinguishing the effects of historic versus current loading, makes using this approach inappropriate for this TMDL at the present time.

**RESPONSE TO COMMENTS RECEIVED
CONCERNING THE PROPOSED DIOXIN TMDL
FOR THE COLUMBIA RIVER BASIN**

February 25, 1990

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MAR 05 1991

WATER QUALITY CONTROL
DIVISION OF ENVIRONMENTAL QUALITY

**RESPONSE TO COMMENTS RECEIVED
CONCERNING THE PROPOSED DIOXIN TMDL
FOR THE COLUMBIA RIVER BASIN**

ANALYTICAL CAPABILITIES

Comment. Several comments were received concerning the measurement of dioxin: who can measure it, at what levels can it be detected, can compliance with WLAs be reliably monitored?

Response. Nationally there are a limited number of analytical laboratories EPA is aware of which are capable of reliably measuring dioxins at levels of approximately 10 ppq in water samples. The Weyerhaeuser laboratory at the Weyerhaeuser Technology Center in Federal Way, Washington, is one of those facilities. Although one of the commenters supplied a Weyerhaeuser Canada article referring to the Federal Way facility having a "mass spectrometer capable of detecting molecules of chemical compounds to the parts per quintillion range," Kari Doxsee (Manager of the Analytical Chemistry Laboratories, Weyerhaeuser Technology Center) has confirmed (July 25, 1990) that their typical limit of detection for 2,3,7,8-TCDD is approximately 10 parts per quadrillion (ppq).

The limit of detection for any given sample will vary above and below the 10 ppq level depending on the interferences present in the sample. For example, Weyerhaeuser can frequently measure down to the 1 - 4 ppq range. Improvements in methodology and technology should further reduce the limit of detection in the future.

The TMDL provides the framework for achieving water quality standards in the basin by allocating permissible dioxin loadings from various sources. The ability to measure compliance with waste load allocations was a major concern during the development of this TMDL. If pulp mills exceed their long term average WLAs established in this TMDL, then, based on the assumptions made in the TMDL, individual samples from their bleached effluent would exceed 10 ppq 2,3,7,8-TCDD (i.e. they would contain measurable concentrations of 2,3,7,8-TCDD) more than 5% of the time. New NPDES permits for the pulp mills covered by the TMDL will specify effluent limits necessary to assure compliance with state water quality standards and must be consistent with this TMDL (see response to comment in "PERMIT LIMITS" section). Effluent sampling location, frequency, and analytical methods are specified in the permit, as well as any ambient monitoring requirements. The permittees are financially responsible for all monitoring required under the NPDES permits.

ANTIBACKSLIDING

Comment. What are the antibacksliding effects of the TMDL? It could be a mistake to start out with such a strict TMDL and find out later it wasn't necessary, but can't then loosen it.

Response. The TMDL itself is a management tool which is developed from available information. The TMDL may be refined as better information becomes available. Thus, allocations may be adjusted as the TMDL becomes more refined.

The concern expressed in this comment relates to whether the NPDES permit limits based on WLAs in a TMDL may be relaxed if the TMDL is revised to include a higher WLA. The most important provision of the Clean Water Act (CWA) relating to backsliding from water quality-based effluent limitations is Section 303(d)(4). This section has two parts: paragraph (A) applies to "non-attainment waters" and paragraph (B) applies to "attainment waters." The reach of the Columbia River that the TMDL applies to is currently considered to be a non-attainment water.

For non-attainment waters, the statute provides that a permittee may be allowed to backslide from a water quality-based effluent limitation if certain conditions are met. First, the existing permit limit being revised must be based on a TMDL or waste load allocation established under Section 303. Second, the revised permit limit must assure attainment of the water quality standard. These conditions would be met if, for example, after the TMDL and waste load allocations were finalized and NPDES permit limits based on the TMDL were developed, but before all the controls were implemented (to bring the waterbody into the attainment category), contributions from one of the sources was found to be less than previously estimated. Then some other allocation(s) and the permit limits based on those allocations could be increased as long as the revised TMDL would still ensure that water quality standards would be met.

In the case where the TMDL and waste load allocations have been implemented, the waterbody has become an "attainment water," and subsequent information shows that a less stringent TMDL would be adequate to meet water quality standards, waste load allocations may still be relaxed if certain conditions are met. Specifically, Section 303(d)(4)(B) provides for backsliding from water quality-based permit limitations if revisions are consistent with the state's approved antidegradation policy. In general, the national antidegradation policy states that an attained water cannot be degraded below the level necessary to protect waterbody uses that existed after 1975. In addition, an attained water cannot be degraded, unless the state finds, after satisfying public participation procedures, that the degradation is necessary to accommodate important

social or economic development. However, in this case, the water still cannot be degraded to below levels necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water. In addition, waters designated by states as "Outstanding National Resource Waters" may not under any circumstance suffer long-term degradation of water quality. States are required to adopt antidegradation policies consistent with the Federal policy as a part of their water quality standards. Under s303(d)(4), establishment of a new TMDL based on updated information, and recalculation of waste load allocations, could be allowed if consistent with the state's antidegradation requirements.

BEST AVAILABLE TECHNOLOGY (BAT)

Comment. There is no evidence that proposed WLAs are achievable by BAT.

Response. Waste load allocations in a TMDL are established at levels necessary to ensure attainment of water quality standards. They are not based on any given level of treatment technology and are developed because BAT has been inadequate to protect water quality [Section 303(d)]. Existing effluent guidelines for the pulp and paper industry do not address dioxin. Effluent guidelines for BAT relating to dioxin discharges from pulp mills are scheduled to be proposed in 1993 and become final in 1995. At this point we do not know whether BAT limits based on those guidelines will be more or less stringent than the limits now necessary to conform with the TMDL. Absent promulgated effluent guidelines for dioxin from pulp mills, permits are to contain Best Professional Judgement (BPJ) limits reflecting BAT. Permit limits contain limits based on WLAs only if such limits would be more stringent than those based on BPJ BAT.

Comment. 100% chlorine dioxide substitution at Weyerhaeuser Longview may not assure compliance with the proposed WLA.

Response. As pointed out above, the WLAs in the TMDL are established at levels to ensure attainment of water quality standards. They are not based on a given treatment technology. Chlorine dioxide substitution is not the only alternative to chlorine bleaching. Other alternatives such as oxygen delignification and hydrogen peroxide bleaching may be used to assist in the reduction of dioxin contamination in pulp mill effluents while still producing a white product. It is also possible that some products currently bleached need not be bleached at all.

Comment. Since there are alternative bleaching processes, no discharge of dioxins should be allowed.

Response. EPA disagrees. Regardless of the existence of alternative processes which may lead to zero dioxin discharge, WLAs established pursuant to CWA §303(d) need not be set at zero unless that is required to meet water quality standards. EPA has determined in this TMDL that water quality standards can be met while allowing small but definable WLAs to the pulp mills in the basin.

Comment. There is no established BAT for dioxin discharges from pulp mills, so no defensible 303(d) listing could be made by states.

Response. CWA Section 303(d) requires that "each State shall identify those waters within its boundaries for which the effluent limitations required by section 301(b)(1)(A) and section 301(b)(1)(B) are not stringent enough to implement any water quality standard applicable to such waters."

While this section specifically provided for listing of waters under Section 303(d) when BPT and secondary treatment requirements are not stringent enough to implement water quality standards, EPA has interpreted the section as not requiring listing under Section 303(d)(1) if existing required pollution controls (including BAT requirements) are sufficiently stringent to implement water quality standards (50 FR 1775). In the absence of national effluent guidelines establishing BAT for dioxin from pulp mills, the relevant technology-based requirements which EPA reviews to determine whether a water should be listed under Section 303(d)(1) are the BPJ requirements in existing permits. BAT/BPJ effluent limits in existing permits have failed to achieve water quality standards for 2,3,7,8-TCDD. It would be too speculative to base a determination of whether water quality standards will be achieved based on BAT/BPJ limits or effluent guidelines to be developed in the future. If these technology-based limits developed in the future are more stringent than the WLA-based limits, then those limits must be complied with and the WLAs established here will have no practical effect.

Until the effluent guidelines are revised, it is not reasonable to assume that technology-based limits based on the revised guideline will result in attainment of the water quality standards for dioxin. Based on the current effluent guideline development schedule, such an assumption could lead to the water quality standard being violated for another 5 years before improvements in discharge rates were even initiated. Then, after waiting for BAT to be implemented, additional controls could still be needed, resulting in further delays. This is contrary to the very essence of Section 303(d). EPA believes that the purposes of the Act and the intent

of Section 303(d) are best achieved by its interpreting that section as requiring TMDLs where existing required pollution controls are failing to meet water quality standards.

CANADA

Comment. Several comments were received concerning the level of dioxin loading coming from Canada and the method we proposed to handle that loading in the proposed TMDL. There was considerable confusion evidenced by comments that it was unfair that EPA was proposing to allocate 2.3 mg/day to the Celgar pulp mill.

Response. EPA does not have the authority to regulate dischargers in Canada. This TMDL does not attempt to do so. However, it does recognize that there are sources of dioxin to the Columbia River basin above where the river enters Washington State. Available data indicate that as the river crosses the border it exceeds Washington's water quality standards with respect to 2,3,7,8-TCDD based upon levels observed in Lake Roosevelt fish. This would mean that past upstream loadings and sediment accumulations exceeded the loading capacity for 2,3,7,8-TCDD of the Columbia River as it crosses the border into Washington State. EPA and Washington State are currently working with Canada to reduce those dioxin loads north of the border. The Celgar mill is the only source on the Canadian side for which confirmation of 2,3,7,8-TCDD loading to the Columbia is available.

Both the Celgar mill and the British Columbia Ministry of Environment have commented that this mill will be modernizing, resulting in 2,3,7,8-TCDD discharges in 1994 which are less than 0.05 mg/day. The final TMDL reserves a higher loading of 0.31 mg/day to cover Celgar. This is not a WLA but rather an estimated loading. This estimate provides a margin of safety to cover a possible shortfall in Celgar's attainment of the projected 0.05 mg/day loading and other possible upstream sources. As additional information is assembled, this preliminary estimate may be refined.

COMPLIANCE DATE

Comment. When will compliance with the TMDL be achieved?

Response. Upon the establishment of the TMDL, the TMDL is automatically incorporated into the states' current water quality management plans [see 40 CFR § 130.7(d)]. Subsequent actions, including effluent limits in NPDES permits, must be consistent with the TMDL [40 CFR §§ 122.44(d)(1)(vii); 122.44(d)(6); 130.12(a)]. There is no compliance date set in the TMDL,

but NPDES permits which are individual control strategies (ICSs) under CWA Section 304(l) must be designed to achieve compliance with established WLAs within three years of establishment of the ICSs. All the chlorine bleaching pulp mills for which WLAs are established in this TMDL were listed under §304(l) and are subject to these requirements.

Comment. The proposed TMDL will result in delayed attainment of standards beyond Section 304(l) deadline.

Response. The Section 304(l) deadline for attainment of water quality standards in affected waters is as soon as possible but not later than three years after the establishment of the ICSs. As explained above, establishment of this TMDL does not alter that time frame.

ECONOMY

Comment. Several comments concerned the effect of the proposed TMDL on the NW economy: that it would make region's mills uncompetitive; have a negative affect on balance of trade; and cause a loss of jobs.

Response. As pointed out above, the section of the CWA which requires TMDLs is based solely on the need to achieve water quality standards. Economic considerations are not a necessary part of the process.

ENDANGERED SPECIES

Comment. The proposed TMDL will adversely affect bald eagles & therefore violates Endangered Species Act. EPA has not consulted with U.S. Fish & Wildlife Service (USFWS) about the potential effects of the continued discharge of dioxins on bald eagles in the Lower Columbia River which are listed as "threatened" by the USFWS.

Response. EPA has consulted with the USFWS regarding the effects on bald eagles of the TMDL for dioxin discharges to the Columbia River basin. While USFWS suggested that EPA participate with them in further investigations concerning the accumulation of dioxin in Columbia River eagle eggs, the USFWS concluded that there are insufficient data at this time to determine whether this species has been affected by past discharges of 2,3,7,8-TCDD, much less whether bald eagles will be affected by the reduced dioxin discharges allowed by the final TMDL. The USFWS commended EPA's action to reduce existing discharges of dioxin to the

Columbia River basin. There is insufficient information at this time to determine the impact of dioxin on eagles. However, it is EPA's position that the reduction of the existing discharges of dioxin to the system that should result from implementation of the TMDL will not adversely affect any endangered species. USFWS agreed with this position and did not indicate that any further consultation was necessary under Section 7 of the Endangered Species Act with respect to issuing the TMDL.

GENERAL APPROACH

Comment. Several commenters suggested that the TMDL is overly conservative and/or is not based on a valid scientific analysis of the issue.

Response. The legislation requiring TMDLs clearly anticipated that TMDLs be established expeditiously even in situations where there may be insufficient information. This includes uncertainty with regard to sources and their relationship to concentrations of contaminants in the receiving water. A margin of safety is to be utilized to compensate for such lack of knowledge. The focus of this comment was the fact that EPA did not use a model which predicted attenuation (losses) of dioxin from the water column through sedimentation. All information and methodology available, including evidence of attenuation, was considered in the development of this TMDL. However, inconclusive data led EPA to make conservative assumptions with respect to issues such as mechanisms of loss of dioxin from the system. The Decision Document for the Final TMDL evaluates existing and modeled fish tissue data as evidence of net attenuation and concludes that these data support the use of a conservative model at this time.

Comment. Non-CWA authorities, such as Clean Air Act, Federal Insecticide, Fungicide & Rodenticide Act, Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act, and Superfund Amendments and Reauthorization Act, need to be used to control all sources.

Response. Although this TMDL is established under the provisions of the CWA, EPA agrees that all applicable authorities should be utilized to reduce the production and discharge of dioxins where it is demonstrated to be present at levels of concern. Three wood-preserving wastes, for example, were listed as hazardous wastes under RCRA Subtitle C in November 1990. Control of nonpoint sources may also require utilization of state law and/or local ordinances.

Comment. Tissue sample data in the National Bioaccumulation Study (NBS) are not adequate to describe relative contributions from the various sources studied.

Response. EPA agrees. The NBS is primarily useful to demonstrate the range of dioxin contamination present in our nation's waters and to give a first cut at which types of activities are typically associated with the highest levels observed.

Comment. Attenuation/sedimentation will result in problems being localized in areas below major sources. Therefore, developing the TMDL on basin wide basis is inappropriate. It would be more appropriate to rely on BAT or attack problems on more local basis.

Response. EPA disagrees. A solution to the problem of dioxin contamination in the Columbia River basin requires that the problem be evaluated at several levels (local, sub-basin, and whole basin) to account for multiple sources in the entire basin. While it is necessary to look at localized areas of contamination, such as through the NPDES permitting process, it is not sufficient to do so in isolation. Dioxin, due to its persistence, may be transported for considerable distances and has been measured in fish tissue taken from areas away from pulp mills. The TMDL provides for an equitable distribution of the loading capacity throughout the basin rather than allowing the entire loading capacity to be allocated to any one source to the detriment of others.

BAT limits based on BPJ, existing at the time the Columbia River was listed and approved as a §303(d) water, were not adequate to attain water quality standards. Whether BPJ limits to be developed in the future, or limitations based on future effluent guidelines for BAT, will be sufficient to attain water quality standards cannot be ascertained at this time.

GROWTH

Comments. Several comments were received relating to concerns about how future new sources or growth of existing sources would be handled through the TMDL process.

Response. EPA believes that economic growth can be accommodated in the Columbia River basin through the TMDL process. Indeed, without a plan, such as a TMDL, to achieve necessary reductions in dioxin loadings to the system, no new discharges of dioxin could be allowed. As further information is developed on the existing sources, uncertainties should

diminish and thereby lessen the magnitude of the margin of safety needed. This combination of factors may lead to further room for growth.

Proposals for activities leading to increased dioxin loadings will need to be evaluated on a case-by-case basis to determine whether allowance of the loadings is consistent with this TMDL and the requirements of the Act.

Assuming proposals meet water quality standards, additional factors which could be considered in evaluating relative priorities include the anticipated dioxin loading, efforts taken to minimize dioxin contaminated wastes, and the social/economic benefits of the proposed activity.

HEALTH RISK

Comment. One commenter expressed concern that toxics may be responsible for a number of cancers among the population on Puget Island in the lower Columbia River.

Response. EPA is not aware of any evidence linking the cancers described to any specific cause. It is a goal of the CWA and state water quality standards to protect human health as well as the environment from adverse impacts caused by contaminants in surface waters. The applicable state water quality criteria and the dioxin TMDL were established to reduce risks associated with dioxin contamination in the Columbia River basin.

Comment. Fish are being contaminated by dioxin; there is a disproportionate health risk to Indians; Indian treaties give rights to have fish to take; the federal trust responsibility requires protection of fish; commenters recommend zero dioxin discharge for WLAs for pulp mills.

Response. EPA recognizes the increased risk to people who consume greater than average amounts of fish from the Columbia River system. Estimates of those risks were given in a draft EPA report by Cleverly and McCormick ("Analysis of the Potential Populations at Risk From the Consumption of Freshwater Fish Caught Near Pulp Mills," April 23, 1990) and follow-up work is in progress. The TMDL being established for dioxin loading to the Columbia River basin is developed based on current state water quality standards. If those standards are not sufficiently protective of Indian health, changes in those standards should be sought. The states triennial review process provides one avenue for seeking such changes. See also responses to previous comments relating to the zero dioxin discharge option.

Comment. An industry sponsored study by ChemRisk (1989) confirms that there is no human health reason or environmental reason to require such strict limits. Each mill could be given WLA equivalent to 10-30 ppq in its final effluent without exceeding a risk of 1 in a million based on this study and industry modeling.

Response. EPA Region 10 does not agree with the risk estimates provided by the pulp mill industry. The goal of the TMDL is to ensure that state water quality standards are attained in the Columbia River system. The WLAs in the final TMDL, substantially lower than those which this comment suggests, are necessary to meet water quality standards according to EPA Region 10's evaluation. The Decision Document for the final TMDL provides the basis of EPA's determination. See also the response for the comment relating to the industry sponsored study under the "OTHER SOURCES" heading. Included in the administrative record for this TMDL is a letter dated March 16, 1990 from Laurence R. Foster (State Epidemiologist, Oregon Department of Human Resources, Health Division) to Llewellyn Matthews (Executive Director, Northwest Pulp and Paper Association) which summarizes several serious concerns (with which we concur) about the referenced study.

LAW

Comment. The waste load allocations (WLA) in the TMDL violate Washington state law provision RCW 90.54.020(3)(b).

Response. Section 303(d) of the CWA, 33 U.S.C. 1313(d), requires the states or EPA (upon disapproval of state submissions) to identify waters within a state's boundaries for which effluent limitations under Section 301(b)(1)(A),(B), are not stringent enough to implement water quality standards applicable to such waters. Section 303(d) also requires the establishment for these waters of a TMDL which is necessary to implement the water quality standards. A TMDL establishes allowable loadings for point source discharges into these waters (WLA) and load allocations (LA) for nonpoint sources. NPDES permits are then developed with effluent limitations, consistent with the WLA, which are designed to meet the water quality standards.

EPA is establishing a TMDL for 2,3,7,8-TCDD in the Columbia River for the states of Oregon, Idaho, and Washington. NPDES permit limits for dioxin discharges to the Columbia River basin must be consistent with the TMDL [40 C.F.R. 122.44(d)(1)(vii)(B); 122.44(d)(6); 130.12(a)]. However, Sections 301(b)(1)(C) and 510 of the CWA allow the state to implement

any more stringent limits necessary to meet state requirements.

The portion of the Washington law referred to states:

"Notwithstanding that standards of quality established for the waters of the state would not be violated, wastes and other materials and substances shall not be allowed to enter such waters which will reduce the existing quality thereof, except in those situations where it is clear that overriding considerations of the public interest will be served." (emphasis added)

It is EPA's position that the TMDL does not violate this law for two reasons. The TMDL does not authorize the discharge of dioxin to the Columbia River; that can only be done in NPDES permits. These permits must contain water quality based effluent limits consistent with the TMDL. While a permit authorizing the discharge of dioxin must be consistent with the TMDL, it may also be made more stringent to the extent the state determines that effluent limits based on the TMDL would not be sufficient to protect water quality standards or to implement other provisions of state law. CWA §301(b)(1)(C); §401(a).

Secondly, effluent limits based on the TMDL do not reduce the existing water quality. The reduction of the discharge of dioxin resulting from the implementation of this TMDL will improve the existing quality of the waters not degrade it.

Comment. One commenter challenges EPA's authority to promulgate this TMDL because there is no support in the record that the affected states determined not to establish a TMDL for dioxin on the Columbia River.

Response. Section 303(d)(2) of the CWA requires EPA to either approve or disapprove submissions by states regarding the establishment of lists of water quality limited waters and load allocations for point source discharges to these waters.

On March 21, 1990, the states of Oregon, Washington, and Idaho sent letters to the Director of the Water Division, EPA Region 10, expressly stating that they would not establish state issued TMDL's for dioxin on the Columbia River and requesting that EPA establish a TMDL as a federal action. This was based on the states' desire for consistency and equity in regulating discharges to waters in the multi-state Columbia River basin. Based on these submissions EPA, in accordance with Section 303(d)(2), disapproved these submissions and established the TMDL.

EPA has statutory authority to take this action. As a matter of law, under CWA §303(d)(2), an explicit state determination to set no TMDLs must be reviewed by the EPA and the EPA is required to approve or disapprove the submission. If EPA disapproves it must set its own TMDLs. Certainly a state's decision to not act should not defeat the intent of Congress that TMDLs be established for waterbodies meeting the listing criteria under CWA §303(d).

Comment. One commenter raised questions as to the effect of the TMDL on NPDES permits and the reviewability of the TMDL in a state forum challenge to the permit.

Response. NPDES permit limits must be consistent with the waste load allocations in the TMDL. Judicial review of the TMDL must be reviewed in federal court and EPA believes that any such review would be based on the administrative record. Challenges to NPDES permits must be pursued administratively through the agency which issued the permits. See discussion under "Judicial Review" in the decision document.

Comment. The phased approach is contrary to law.

Response. See response to comments on "Phased Approach."

Comment. Weyerhaeuser (p.12 of a letter dated July 20, 1990) suggested "that a reasonable response to the data gaps in the TMDL decision document would be to postpone adoption of a 'final' TMDL ... and [instead] adopt a set of load and waste load allocations expressly labeled as provisional for the purposes of permitting only. Compliance with these provisional waste load allocations (if retained or as modified) would be due three years after permit issuance." An effective period of one year for the provisional permit was suggested during which additional information would be gathered.

Response. EPA agrees that the TMDL should be established regardless of the need for further information. However, the procedural mechanism suggested is not provided for in the CWA and EPA believes it is important that these dioxin controls be final agency action even if later modified. The TMDL developed may be modified later if new information is obtained which supports revision (see also response to comment under "ANTIBACKSLIDING"). Further studies are planned but a commitment to revising the TMDL at a specific future date would be premature at this time. The waste load allocations in the TMDL will be implemented through NPDES permits. The compliance date for dioxin in the case of the mills affected by this TMDL is dictated by Section 304(l).

LOSSES

Comment. Several commenters criticized the lack of consideration of processes leading to loss of dioxin from the system. Others commented, however, that delaying regulatory action to improve knowledge of these processes would be inappropriate.

Response. EPA agrees that the implementation of this TMDL should proceed while further data are gathered. Appendix B of the final TMDL includes an expanded discussion of available information on attenuation and the sediments as a loading source to the river system. See also the responses in the "GENERAL APPROACH" section.

MARGIN OF SAFETY

Comment. Several comments were received that the concept of a margin of safety needs clarification and that the margin of safety incorporated into the proposed TMDL was too large or too small.

Response. Section 303(d)(1)(C) of the Clean Water Act and EPA implementing regulations require each state to identify waters for which existing pollution control requirements are not stringent enough to attain water quality standards applicable to such waters. Total maximum daily loads (TMDLs) are then to be established on such water quality limited segments for appropriate pollutants of concern. This provision states that the TMDL:

"shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality." (emphasis added)

The margin of safety reflects uncertainties in the development of the TMDL. Such uncertainties may relate to, for example, (1) potential sources for which measurements of pollutant loadings are not available, and (2) the uncertain fate of pollutants once introduced into the waterbody. Conceptually it involves establishing WLAs and LAs such that, even if some of the assumptions made are in error, implementation of those allocations will still result in attainment of the water quality standard.

The size of the margin of safety needed in, or that is actually provided by, a given TMDL is not easily determined and may depend to a large degree

on professional judgement. The margin of safety is not something that can be precisely calculated. For instance, using a conservative model to estimate pollutant transport and fate results in a cautious estimate of the system's loading capacity. This provides a margin of safety, but since we do not precisely know the "true" loading capacity we cannot quantify the magnitude of this component of the total margin of safety. Similarly, the fact that some sources may not fully utilize their allocation provides an additional unquantifiable margin of safety. In any TMDL, some margin of safety may be provided by establishing allocations that in total are lower than the defined loading capacity.

In the final TMDL we use a conservative model to describe transport, fate and attenuation, thus providing part of the needed margin of safety. The total of the only allocations established (the WLAs for the existing pulp mills in the basin) is also significantly less than the estimated loading capacity. The unallocated portion of the loading capacity also provides a margin of safety as noted in the Decision Document. Of course, EPA recognizes that there are existing sources of dioxin to the basin other than the chlorine bleaching pulp mills. Thus, only a fraction of the unallocated amount constitutes a margin of safety. The final TMDL estimates loadings attributable to additional sources (woodtreaters, municipal wastewater treatment facilities, and Canadian sources) to demonstrate their ability to fit within the currently unallocated portion of the TMDL. See also responses to comments in the "OTHER SOURCES" category.

MIXING ZONE

Several comments related to the relationship between the TMDL and mixing zone policies:

- Comment. The water quality standard should be achieved at the point of discharge. The bioaccumulative nature of dioxin makes assumptions of dilution unreasonable; the TMDL will not adequately address "hot spots."
- Comment. TMDL should include analysis of compliance with mixing zone policies.
- Comment. Proposed WLAs will result in violations of standards at edge of Boise Cascade mixing zone and downstream for 1500 meters downstream.
- Comment. Potlatch WLA will result in violation of the water quality standard for a considerable distance downstream.

- Response. While effluent limits in NPDES permits need to be consistent with WLAs in an established TMDL, WLAs are not effluent limits. States establish mixing zone policies as a part of their water quality standards process. Where a state allowed mixing zone is less than the entire river flow, NPDES effluent limits may need to be more restrictive than the WLA would require. An

analysis of this issue, if appropriate, occurs as a part of the NPDES permitting process.

There is no evidence in the record to support assertions of nonattainment of standards outside of state allowed mixing zones. Development of analyses needed for such determinations would require time and money. In light of §304(l) and §303(d) deadlines, EPA believes it should move forward now, rather than duplicate efforts which the state should conduct during the permitting process.

One comment was that no mixing zone should be allowed due to the bioaccumulative nature of this persistent pollutant. However, this issue more directly relates to the appropriateness of existing water quality standards of the states in which the pulp mills are located and thus is not addressed in the TMDL.

MODELING APPROACH

Comment. The geometric mean flow is a better measure of average dilution available in flow regulated systems. This results in a loading capacity of 0.75 mg/day vs. 0.54 mg/day used in the proposed TMDL for the Willamette River basin.

Response. EPA's evaluation of available data suggests that the more conservative measure of the mean, the harmonic mean, more accurately represents the average dilution available in the river. EPA's Draft "Technical Support Document for Water Quality-based Toxics Control" (1990) recommends general use of the harmonic mean for this purpose. The harmonic mean is an appropriate estimate of long-term average flow in highly regulated river basins, such as the Columbia and Willamette. In a regulated river basin, the harmonic mean and the geometric mean are reasonably close. The differences suggested in the comment appear to be the result of differences in the period of record used for flow data. Flow records used to determine the loading capacity in the Columbia Basin were those reported by the U.S. Geological Survey from 1950 to present.

Comment. The TMDL should utilize available models to reflect the flow dynamics of the system, as well as the transport & fate of dioxin; at the very least a sensitivity analysis should be done.

Response. The more sophisticated a model is, the more information is needed to use it. Unfortunately, EPA does not at this time have sufficient information to justify using models requiring estimates of the dynamic processes referred to. While some parameters could perhaps be reasonably estimated,

others (such as loading from historical deposits in the sediment) would need to be given such wide ranges of values that the results from such a model would be of negligible value. Thus, EPA has chosen to use a conservative approach which reflects the amount of available data.

Comment. Less dioxin should be discharged during dry (low river flow) seasons.

Response. The water quality standard which is the basis of the TMDL is based on the human health effects of a long term (70 year) exposure to dioxin through consumption of contaminated fish and drinking water. Seasonal variations in river flow are thus not of great significance. The TMDL, therefore, calculates the loading capacity of the system based on harmonic mean flows which reflect the average dilution provided by the river.

OTHER SOURCES

Comment. Dioxins/furans in Portland Harbor are not from the Pope & Talbot, Halsey Pulp Mill (based on "fingerprinting").

Response. Region 10 acknowledges that there are likely to be sources of dioxin loading to the Willamette basin in addition to the Halsey mill. One such source may be contributions from sediments contaminated by past dischargers. However, this does not reduce the need to control the discharges from current known sources, including the Pulp & Talbot mill. It does, however, support the acknowledged need to gather further information to quantify the contributions from these other sources.

Comment. There is a clear need for additional evaluation of other sources, including dredging and nonpoint sources.

Response. Region 10 agrees. As controls on the pulp mills are being implemented, further information will be collected concerning other possible sources (see discussion on phased approach). The Corps of Engineers is considering work which will evaluate the effects of dredging.

Comment. Site specific data on sources such as woodtreaters in the Columbia basin are not needed to estimate the magnitude of their dioxin discharges relative to the unallocated portion of the total loading capacity. National data can be used for this purpose.

Response. Region 10 agrees that information describing loadings from similar activities in other locations would be useful in evaluating the potential magnitude of contribution from those same activities in the Columbia River basin. The final TMDL uses some national data combined with small amounts of Regional data to estimate dioxin loadings from two additional source categories.

Besides chlorine bleaching pulp mills, the source for which the best information exists is municipal wastewater treatment facilities. National data demonstrate that the sludges removed from some municipal plants contain dioxins and furans. Octa-chlorinated forms predominated the dioxins found in these sludges. Presumably where sludges are contaminated, the wastewater discharges (which contain suspended solids) would also contain these compounds. Of the five municipal facilities whose sludges were examined in the Columbia basin only one had detectable levels of 2,3,7,8-TCDD. The highest 2,3,7,8-TCDD concentration measured for that facility was 3.3 ng/kg. The national average was similar at 2.8 ng/kg. If we assume that the suspended solids in the effluent from the facilities in our Region also contain that concentration of 2,3,7,8-TCDD, a loading can be estimated based on the Total Suspended Solids (TSS) discharge data reported for the facilities in the basin. This approach results in an estimated loading of 0.2 mg/day 2,3,7,8-TCDD to the entire basin from these facilities (see Appendix B of the Decision Document for the Final TMDL). As additional information is assembled, this preliminary estimate may be refined.

Another likely source of dioxins is the woodtreating industry. We know that pentachlorophenol (PCP), one of the chemicals used in this industry, is frequently contaminated with varying amounts of dioxins. This is one of the source categories which we plan to study further in our efforts to control dioxin loadings to the Columbia R. At this time, however, we have no direct information on how much dioxin from these facilities may ultimately be transported to surface waters. Process wastewaters from these sources are generally not permitted for discharge. The most likely mechanisms of transport of 2,3,7,8-TCDD contaminated PCP are stormwater and subsurface flow from retention ponds near surface waters. PCP has been monitored, but not limited, under NPDES permits covering stormwater discharges from some of these facilities. Based on that data and an assumed ratio of 2,3,7,8-TCDD to PCP in the discharge, it is estimated that 1 - 2 mg 2,3,7,8-TCDD/day could be originating from woodtreating operations in the Columbia River basin (see Appendix B of the Decision Document).

A third potential source category is non-chlorine bleaching pulp mills and other potential industrial sources. An estimate of loadings from these

sources cannot be determined at this time because no data has been identified which describes 2,3,7,8-TCDD in either effluents or sludges. As additional information is gathered, it will be possible to estimate loadings from these sources. See also Appendix B of the Decision Document for the Final TMDL.

Comment. EPA is ignoring available information of other sources of dioxin. EPA must use existing data to estimate waste loads from these sources.

Response. The public notice of the proposed TMDL specifically requested that any relevant information in the possession of commenters be provided. We have carefully reviewed the supplied information and have found little additional data of use in establishing WLAs for sources outside of the pulp mill category. However, the final TMDL estimates potential contributions from two additional source categories (see response above).

Comment. Lack of dates and commitments for State and EPA action regarding collection of further data on other sources, indicates that the phased approach is a pretense.

Response. The phased approach results from EPA's recognition that needed reductions in loadings from the pulp mills should not be delayed while gathering information on other sources. The high expense of analyzing dioxins, budgetary constraints, and uncertainties relating to the results of future monitoring, make it difficult to predict the rate of progress in gathering further information and making any necessary adjustments to the TMDL. (See also the response to comments in the "Phased Approach" category.) EPA has developed this TMDL recognizing the limited information available, and has incorporated a margin of safety into the analysis such that, notwithstanding the current limits on information, water quality standards are expected to be attained.

Comment. An industry sponsored fish study (Beak Consultants, 1989) shows higher fish tissue concentrations above the mills than below; other sources need to be accounted for.

Response. The existence of other sources is recognized by EPA and is the reason that WLAs to the pulp mills were limited to less than loading capacity of the system. The industry sponsored study had several weaknesses in its design which make it difficult to draw conclusions about the relative significance of pulp mill discharges versus other sources of dioxin to the system. The most critical problem with this study was the location of sampling sites. For example, the referenced study took no samples from

the reservoir above McNary Dam directly downstream of Wallula. The nearest downstream samples were taken from below McNary Dam. Based on the 104 Mill Study, however, the Boise Cascade mill at Wallula contributed the highest dioxin loading to the river of any mill in the Region. Fish from the reservoir above McNary Dam, into which this mill discharges its wastewater, also had some of the highest tissue concentrations of TCDD in the Pacific Northwest.

Comment. The proposed TMDL does not address how much dioxin toxicity is in the river system already (e.g. available from sediments), as well as loading from all sources.

Response. The final TMDL has an expanded discussion of other sources of dioxin to the system including bottom sediments (see Appendix B of the TMDL).

Comment. What input might there be from pulp mill air emissions to the Columbia River?

Response. Since dioxins are formed in combustion processes, one would expect them to be produced in the boilers at pulp mills. The Region is aware of the analysis of dioxins and furans in one sample of boiler fly ash (from an Alaskan pulp mill). The results of that analysis showed total TCDD levels of ~74.6 ppb; 2,3,7,8-TCDD was not analyzed separately. Thus, although air emissions are likely to contain dioxins and other chlorinated organics, we do not know enough to estimate potential contributions to the Columbia River from these air emissions. Given the probable wide dispersal of the air particulates, only a small fraction would be expected to fall on water directly. Dioxin's affinity for solids would also mean that direct erosion would be required to transport dioxin contaminated solids settling on land to surface waters. Thus, the transport of dioxin contaminated pulp mill boiler emissions is probably a minor source relative to their direct wastewater discharges. EPA believes that any contribution from this source is more than adequately covered by the margin of safety built into the TMDL.

Comment. Application of the TMDL concept to dredging and disposal activities is inappropriate as these activities are sufficiently regulated under Section 404 and 401 of the CWA of 1977 and Section 103 of the Ocean Dumping Act of 1972.

Response. The TMDL process should take into consideration all sources of the pollutant of concern. To the extent that dredging of sediments results in the transfer of dioxin from those sediments to the water column, that

activity is using some of the loading capacity which is, therefore, not available for other users of the system. Of course, if dredging and disposal activities are regulated under Section 404 such that there are no associated discharges of dioxin, then any future TMDL would have no effect on these activities.

The Corps of Engineers (COE) recently completed analyses of TCDD in sediments in areas to be dredged in the Columbia River. Columbia River sediment had non-detect TCDD in areas with mostly sandy, silty sand, or sandy silt sediments. TCDD was found at two stations in the Willamette River in low ppt concentrations. These stations, however, also contain other pollutants at levels of concern, which will be considered in making dredging and dredged material disposal decisions.

The Final TMDL emphasizes the control of point source discharges of dioxin through NPDES permits. While uncertainty about the release of dioxin from sediments contributes to the need for a significant margin of safety, the Final TMDL does not provide specific allocations for dredging activities.

Comment. The TMDL must identify quantities assigned to WLAs, LAs, margin of safety, and reserve capacity.

Response. The final TMDL identifies WLAs for chlorine bleaching pulp mills, estimates loadings from other sources, and leaves unallocated a portion of the loading capacity. As described in response to the "MARGIN OF SAFETY" comment, the margin of safety cannot be precisely quantified as it is comprised of a variety of conservative assumptions made in estimating the loading capacity and evaluating contributions from the various sources as well as the unallocated loading capacity.

PERMIT LIMITS

Comment. Concentration and flow limits could unfairly penalize mills that practice extensive recycling.

Response. The Final TMDL includes no concentration or flow limits for pulp mills. The TMDL specifies allowable loadings (WLAs) for the pulp mills in the basin. In order to be equitable, the WLAs are proportional to quantities of bleached product produced. The factor ($0.257 \mu\text{g}/\text{ton}$) used to arrive at the WLA was based on an assumed concentration of 2,3,7,8-TCDD (10 ppq maximum or 4.7 ppq long term average) and an average flow of 14,470 gallons of wastewater discharged per ton of bleached product. If a

mill uses extensive wastewater recycling to reduce discharge flows from the chlorinated wastestreams, they could have higher concentrations of 2,3,7,8-TCDD in the discharged wastewater while still being in compliance with the loading limit and the WLA. NPDES permits based on this TMDL should include dioxin load limitations consistent with the WLAs, not the concentration which was assumed in its derivation.

Comment. The TMDL should be specific about how permit limits should be derived from WLAs and how compliance will be measured. How will below detection or below quantitation limit results be handled?

Response. The TMDL is specific in describing WLAs as a long term average loading limit. There are several ways in which the states could translate the WLAs into permit requirements. As long as the NPDES permits include limits consistent with the TMDL and compliance is effectively monitored, the states will be allowed flexibility in how they achieve that goal. WLAs have been established at levels such that inadequate plant performance will lead to individual samples having concentrations which are measurable.

Comment. If 2,3,7,8-TCDD is the only pollutant addressed by the TMDL, polluters will be liable for CWA penalties for discharging other chlorinated organics.

Response. The response to comments under the heading "TEC vs TCDD" addresses the reasons why this TMDL focuses on 2,3,7,8-TCDD. The CWA liability of dischargers for various pollutants in their wastestreams is a question of compliance with the limits in their NPDES permit(s).

PHASED APPROACH

Comment. Several comments were received relating to the legality, timing, and effects of the phased approach discussed in the proposed TMDL.

Response. It appears that the "phased approach" terminology led to considerable confusion. The TMDL now being established is "final." It reflects EPA's best professional judgement given the information available at this time. The law requires that a TMDL be established at a level which reflects existing uncertainties. As further information is obtained, however, the TMDL may also be modified or revised through the same process used to develop it in the first place. The levels of uncertainty involved in this TMDL are not insignificant. Therefore, EPA chose to not only acknowledge those uncertainties, but to also state its intention to actively gather additional data to improve our knowledge with respect to certain issues. There is no required time frame for this next "phase" and, given budgetary

constraints and other uncertainties, we cannot at this time predict when this TMDL might be revised.

One concern expressed was whether a revised TMDL could conceivably result in reduced WLAs to the pulp mills. If new information indicates that, contrary to our present evaluation, other uncontrollable sources of dioxin are more significant than the present TMDL assumed, further reductions would be necessary in the existing WLAs.

Another comment was that, while this TMDL is in effect, further efforts should be undertaken to eliminate chlorine bleaching. As EPA begins to implement its pollution prevention initiative, this would seem to be a possible direction for the future. However, EPA does not believe at this time that it is necessary to eliminate all chlorine bleaching of paper products to meet water quality standards.

PRODUCTION

Comment. Weyerhaeuser Longview produces 407 tons per day (TPD) of bleached fine paper grades and 639 TPD of bleached paper board = 1046 TPD total bleached product (1026 TPD was used in proposed TMDL).

Response. Our production estimates are based on those used by the Washington Department of Ecology in developing their draft permit for Weyerhaeuser Longview. As of August 31, 1990, Ecology was still estimating Kraft fine paper production at 400 TPD and 626 TPD of Kraft paperboard production. These are the only products listed which are bleached at the plant. The suggested change represents only a 2% difference and would need to be corroborated before it could be accepted. No change in production figures is justified at this time.

Comment. Boise Cascade, St. Helens, produces over 1100 tons/day pulp and is in the midst of a \$400 million renovation which will increase production.

Response. The 1035 ton/day figure used in the TMDL is based on Oregon Department of Environmental Quality's draft permit dated May 25, 1990, for the City of St. Helens. A final permit just issued was consistent with this figure. Boise Cascade has submitted no information to revise this estimate and made no comment relating to its production rates during the comment period.

PUBLIC PARTICIPATION

Comment. Several comments were received about the adequacy of the public comment process for the proposed TMDL. Those making these comments felt that a longer comment period was needed or that workshops with industry should have been held to discuss technical issues.

Response. EPA and the states have been very open in the process of developing the proposed TMDL. Both industry and environmental groups have had copies of earlier drafts (December 22, 1989 and April 20, 1990) of the TMDL which were very similar to the proposed version. In fact we received informal comments on these drafts. The effective comment period for these parties was, therefore, much longer than the formal 35 day period held after the Public Notice on June 15, 1990, and more than adequate in the opinion of EPA. EPA also believes that the 35 day period was itself adequate in light of statutory deadlines for Agency action on such matters under CWA §303(d) and §304(l).

Although industry and others were able to provide information and comment to EPA, as were all parties, we did not feel it was appropriate to hold workshops with industry. The only way that industry workshops could have served any useful function, other than that already available, was if EPA provided information to industry which was not publicly available. That would clearly have been inappropriate.

REFERENCES

Comment. The TMDL needs more reference information to support river flows used, effluent flows, TCDD data used, justification for Coefficient of Variation used.

Response. The final TMDL decision document contains more complete references for data and assumptions used.

RESEARCH

Comment. Additional research on sources, effects, and analytical methods should be done by an independent group, but funded by those who are contaminating public waters.

Response. Additional research is planned by a number of entities on related subjects.

Such work will include, but not be limited to, monitoring by the pulp mills given WLAs in the final TMDL.

STATE PLANNING

Comment. EPA needs to clarify how the TMDL fits in with state water quality planning efforts.

Response. Upon the establishment of the TMDL, it automatically becomes a part of the Water Quality Management Plans of the affected states. Subsequent NPDES permitting actions requiring state or federal approval will need to be consistent with the TMDL. State water quality planning efforts will also need to be consistent with the TMDL. Since the TMDL is subject to change as further knowledge is gained, state water quality planning efforts will need to react to future changes in the TMDL or, in some cases, may cause such changes.

TCDD VS TEC

Comment. Several comments related to the appropriateness of regulating just 2,3,7,8-TCDD at this time. Some thought that other organochlorines, including other dioxins and furans, should be covered by the TMDL.

Response. EPA Region 10 does not believe it is appropriate to use a toxicity equivalency concentration (TEC) approach for including other compounds in the TMDL for the following reasons:

- 2,3,7,8-TCDD is the most toxic of all dioxin and furan compounds, and thus is the chemical of greatest concern. Controlling 2,3,7,8-TCDD discharges will greatly reduce the risk posed by dioxins and furans in general.
- It is expected that actions taken to reduce 2,3,7,8-TCDD discharges will also reduce the production of other dioxins and furans. This is supported by recent information supplied by three pulp and paper mills in the Columbia River basin (Boise-Cascade at Wallula, Potlatch at Lewiston, and James River at Camas) indicating that as effluent concentrations of dioxins have decreased, the concentrations of furans have also decreased.
- There does not appear to be sufficient information available on other dioxin/furan congeners upon which to base a numeric water quality

criterion or a TMDL for TEC. For example, while relative toxicities of other dioxins/furans have been estimated, little is known regarding their tendency to be taken up and bioconcentrated in fish tissues. Additionally, little is known regarding whether or not other dioxins and furans are metabolized by fish or other organisms, which would affect their persistence.

- It is not clear that states intend to regulate carcinogenic substances in wastewater discharges at a cumulative level of one increased incidence of cancer for all (or a group of) chemicals. For example, in Oregon's Water Quality Standards, water quality criteria for carcinogenic substances are set at a concentration which would result in one additional cancer per one million people on a chemical by chemical basis. Thus permit limits are generally based on a chemical by chemical basis using the "one in a million increased cancer risk" criteria. Historically, carcinogenic substances have been regulated in Washington and Idaho on a chemical by chemical basis as well, rather than attempting to regulate for all chemicals on a cumulative basis. While regulation on a cumulative basis may be desirable at some point in the future, states must first develop methodologies for such actions, as well as a determination as to whether cumulative evaluations would be based on the same cancer risk endpoint of one additional cancer per million people.
- EPA also does not believe there is adequate information available at this time to factor PCBs, DDTs, or other related compounds into a single toxicity equivalency approach.

WATERSHED APPROACH

Comment. Several people commented on the TMDL approach of evaluating the whole Columbia River basin and the use of watershed targets for major sub-basins. For the most part, commenters were supportive of this broad approach. One commenter, however, felt that the WLAs for the pulp mills were inequitable, since they constituted differing fractions of the loading capacity for each of the watersheds. Another commenter thought that since the Willamette River basin was entirely within Oregon, that state should have the responsibility to allocate loadings in that basin.

Response. It is true that the sum of the WLAs to the pulp mills in the various watersheds varied as a percentage of the loading capacity for the watershed. This resulted from treating each of the pulp mills equitably based on existing bleached pulp production. This approach should not, however, give any one state an economic advantage over others, beyond

that which accrues from having greater water volumes available for dilution. To the extent that existing pulp mills utilize more of the loading capacity in a given watershed, there will be less room for other sources or growth in that watershed.

This TMDL establishes a WLA to one source on the Willamette River (Pope & Talbot at Halsey). However, because the Willamette Basin is entirely within Oregon, the Oregon Department of Environmental Quality has the option, within the context of a TMDL, to adjust allocations for specific sources which would still meet this watershed target. See also discussion under "Watershed Targets" in the Decision Document.

WLA APPROACH

Comment. The most equitable allocation method to pulp mills is that based on production rates.

Response. EPA Region 10 agrees and has followed this approach.

Comment. WLAs are inequitable since they result in differing concentration limits for the various pulp mills.

Response. Since the pulp mills in the Columbia River basin differ in the efficiency with which they use water, WLAs cannot be established which are equitable on both a production rate basis and a concentration in effluent basis. Since the ultimate goal of the TMDL is to control mass loading to the basin, not the concentration in the effluent, the production basis was selected for establishing the WLAs for pulp mills. Use of a concentration basis for the WLAs would also be counterproductive with respect to a general EPA goal of minimizing water usage in and pollutant discharge from industrial processes.

Comment. WLAs should be based on production capacity rather than actual production.

Response. Basing WLAs purely on production capacity would allow plants with substantial unused capacity to discharge greater amounts of dioxin per amount of bleached product produced than would be allowed for mills operating at capacity. This would be counter to EPA's effort to be equitable to the mills while establishing WLAs that will lead to attainment of water quality standards. Where plans for substantial production increases are proposed and confirmed, however, EPA will consider changing WLAs on a case-by-case basis within the context of this TMDL. See also the

response to comment in the "GROWTH" section.

Comment. Each mill should be given WLA equivalent to 10-30 ppq in final effluent; this would have risk less than 1 in a million based on industry modeling. Process for further refinement of TMDL could be incorporated.

Response. See response under "Health Risk."

Comment. The allowable discharge should be based on ability to avoid discharge rather than receiving water's capacity.

Response. EPA agrees that ability to avoid discharges should be considered in establishing effluent limits. That is the technology-based approach to regulating point sources and is the goal of BAT. For the pulp mill industry EPA plans to promulgate in 1995 revised BAT effluent guidelines which will minimize the production and discharge of dioxin based upon technological consideration. The TMDL, in accordance with Section 303(d) of CWA, is required to achieve water quality standards in waters where existing pollution control requirements (including existing technology-based limits) have not been adequate to do so. (See also response under "BAT").

Comment. Proposed WLAs will not achieve a sufficient reduction of 2,3,7,8-TCDD, based on fish tissue concentrations, to fit within defined loading capacity.

Response. The water quality standard which is the basis of this TMDL is itself based on the health effects of 2,3,7,8-TCDD. Although the standard is expressed as a concentration of 0.013 ppq in the water, it is primarily based on a fish tissue concentration (0.07 ppt) which is predicted to cause one excess cancer per one million people (10^{-6}) who consume an assumed quantity of this fish over 70 years. Thus, the 10^{-6} risk level, a fish concentration of 0.07 ppt and a water concentration of 0.013 ppq are, in the context of the 2,3,7,8-TCDD criterion, equivalent. This comment points out the fact that measured dioxin levels in fish sampled in the National Bioaccumulation Study in many cases exceeded the acceptable level (0.07 ppt) by a greater factor than that required by the TMDL as a reduction in the pulp mill discharges. This interpretation of the data is one which EPA was aware of in its development of the TMDL. It is one of the reasons that the agency chose to conservatively assume no net attenuation in its model of the system. However, the dioxin loadings the NBS fish tissue data reflect are not known. They may, in fact, be the result of even higher historic loadings than were measured in the "104 Mill Study." EPA, therefore, chose not to estimate needed loading reductions based on the fish tissue data.

Comment. The proposed TMDL is inconsistent in that it assumes pulp mills are only 34% of the current dioxin loading and yet a 95% reduction in loading by that category alone will result in meeting standards.

Response. EPA disagrees with the interpretation of the proposed TMDL made by this commenter. WLAs in the TMDL do not represent EPA's assumptions of existing dioxin discharges by industry, but rather an apportioning of the load they will be allowed to contribute in the future. The proposed TMDL pointed out that there were several weaknesses in trying to use the NBS data to estimate relative loadings of various source categories. EPA does not assume that the pulp mills have contributed 34% of the past or current loading to the system. Based on currently available information, EPA believes that the pulp mills have contributed a higher share of the loading in the past and that other sources will fit within the reserved capacity. However, EPA does not now have sufficient information to accurately estimate the exact fraction of the total dioxin loading to the Columbia River contributed by the pulp mills in the past. The final TMDL allocates approximately 35% of the loading capacity to chlorine bleaching pulp mills in the Region. If future information shows that other sources can not be controlled to the levels estimated in the final TMDL as adequate to cover their loadings, the TMDL will need to be modified. In the mean time, EPA believes that the requirements of the TMDL (approximately a 95% reduction in pulp mill dioxin discharges relative to the year 1988) will result in water quality standards being met. See response to comments on "Other Sources."

Comment. Pulp mill allocations for the main part of the Columbia River (that excluding the Snake River, Willamette River and Canada) should not exceed 34%.

Response. It is not clear why the commenter proposed the 34% figure as a maximum, but it seems to be based on either (1) the belief that pulp mills contribute about 34% of the current loading to the basin, or (2) that the proportion of the mainstem part of the Columbia allocated to pulp mills should not exceed the proportion of the loading capacity for the entire basin allocated to Region 10 pulp mills.

(1) As pointed out in responses to other comments, although the NBS data might seem to indicate that pulp mills contribute approximately 34% of the total load, this results from an inappropriate assumption. Region 10 believes that in the Columbia River Basin, pulp mills are, in fact, the most significant contributor of 2,3,7,8-TCDD (even after the reductions in their contribution they have already achieved).

(2) Although the proposed TMDL allocated about 34% of the basin loading capacity to Region 10 pulp mills, Canadian sources should be considered if one is trying to look at the industry's allocated proportion of the total loading capacity. Including Celgar's loading raises the total pulp mill contribution on a basin-wide basis to about 40% of the loading capacity. In any event, the fact that there is a concentration of mills along the lower Columbia River combined with equity of WLAs among the pulp mills, leads to a higher proportion of the loading capacity in that area allocated to the pulp mills than in other basins with fewer pulp mills.

Comment. The proposed TMDL allocation of 34% to mills is inconsistent with 304(l) determination that receiving water for Longview Fibre's discharge (& other mills) is water quality limited "due entirely or substantially" to its discharge.

Response. The allocation of 34% of the loading capacity to the future discharges from pulp mills in Region 10 does not imply that 34% is the portion of current or past loading contributed by those sources. Although even 34% would constitute a substantial proportion of the total loading, EPA believes that pulp mills have been responsible for a greater share in the past.

WATER QUALITY LIMITED STATUS

Comment. No state submissions of water quality limited segments were ever made.

Response. Since the National Bioaccumulation Study results became known, it has been generally acknowledged that the fish tissue concentrations indicated that the Columbia, Willamette, and Snake Rivers were water quality limited for dioxin (2,3,7,8-TCDD). This, combined with dilution analyses of measured pulp mill waste concentrations, was the basis for the states initiating the TMDL process. When Ecology, ODEQ, and IDEQ each requested that EPA Region 10 establish the TMDL as a federal action, the letters (dated March 21, 1990) they sent each recognized "the designation of this river as water quality limited for dioxin ..." The 1990 Water Quality Assessment (Section 305(b)) reports from both Washington and Oregon also list the applicable portions of the Columbia, Willamette, and Snake Rivers as water quality limited under Section 303(d) of the Clean Water Act due to dioxin contamination.

Comment. The Washington state water quality standard is not equal to .013 ppq.

Response. While it is true that Washington has not adopted a numeric criterion for

2,3,7,8-TCDD, it currently has what is called a "narrative standard" which applies to most toxic substances including dioxin. The state has interpreted this standard consistently with EPA's water quality criterion at the 10^{-6} risk level in both their section 304(l) and 305(b) listing processes. In accordance with the EPA criteria, this corresponds to a concentration of 0.013 ppq. See response to previous comment.

Furthermore, even without a narrative criterion for the state of Washington, EPA would have used .013 ppq as the basis for the TMDL because of the need to ensure that the TMDL will protect the waters of the state of Oregon, where the .013 ppq criterion is a part of the state's water quality standards. See the discussion in Appendix A of the Decision Document for the final TMDL.

Comment. There is no established BAT for dioxin discharges from pulp mills, so no defensible §303(d) listing could be made by states.

Response. See response to comment under BAT section.

WATER QUALITY STANDARD

Comment. Several comments were received concerning the appropriateness of the water quality standard for dioxin used in the development of the TMDL.

Response. The existing state standards are the legal basis for the whole TMDL process. As such, the TMDL must be designed to ensure compliance with those standards. Comments on the appropriateness of water quality standards are best addressed to the respective states for consideration in their triennial review process. As a regional authority, EPA Region 10 is responsible for ensuring that all state water quality standards are met. In the case of the Columbia River system, that means that Washington state's standards affect activities in Idaho. It also means that along the Washington-Oregon border, where water travels back and forth between those states, the most stringent of the state standards must be achieved. As the Decision Document for the proposed TMDL explained, Oregon has explicitly adopted a standard of 0.013 parts per quadrillion for 2,3,7,8-TCDD. Washington has a narrative standard which the Department of Ecology has indicated should be interpreted as equal to EPA's federal criterion at the 10^{-6} risk level, the same as Oregon's standard. (See also comment and response under "WATER QUALITY LIMITED STATUS" section.)

Comment. Bioaccumulation factor should be 0.03 to 0.8 rather than 5,000 as used in EPA criterion derivation.

Response. The bioconcentration factor of 5000 referenced in the comment was that used by EPA in the development of its water quality criterion for 2,3,7,8-TCDD. This bioconcentration factor relates the concentration of 2,3,7,8-TCDD in the water to concentrations in fish tissue. Since the state of Oregon has adopted EPA's criterion in its water quality standards, and the states of Washington and Idaho are using EPA's criterion as the basis for implementing their narrative criteria for toxic substances, EPA Region 10 must use the national criterion, and the bioconcentration factor used in its derivation, as the basis for the TMDL.

The commenter cites an EPA study on TCDD in Lake Ontario sediments, water, and fish as the basis for his comments. However, this study used an approach which is different from, and not directly comparable to, that used in developing EPA's water quality criterion for 2,3,7,8-TCDD. The bioaccumulation factor (BAF) recommended by the commenter (0.03 to 0.8) was based upon the relationship between 2,3,7,8-TCDD concentrations in sediments to those observed in fish tissue, rather than comparing water and fish tissue. In order to apply BAFs based upon sediment/fish tissue relationships, the concentrations of dioxin in the sediments must be known, as well as the contribution of specific discharges to the overall 2,3,7,8-TCDD concentration in the sediments. This information is not available at this time. In addition, the results of the referenced study in Lake Ontario indicate that the study results, including the BAFs, are site-specific, even within Lake Ontario. Thus it would not be appropriate to apply the bioaccumulation factors from that study directly to a system such as the Columbia River, which has very different dynamic processes than Lake Ontario.

As a final note, the authors of the Lake Ontario study reach a very different conclusion from their data than does the commenter. The study reports a bioaccumulation factor of 11,000 (relating the concentrations of TCDD in water to fish tissue) based on their laboratory studies, and a bioconcentration factor of 140,000 based on field results. The authors further note that "...If the laboratory BAFs are applied to best estimates of Lake Ontario water dioxin concentration, rather than to the laboratory exposure water TCDD concentrations, lake trout TCDD residues are under estimated by a factor of fourteen. Since the best available models indicate that a large proportion of TCDD present in Lake Ontario water should be bioavailable, the reported Lake Ontario BAF of 140,000 is a reasonable estimate. A Lake Ontario lake trout BAF based on the predicted dissolved TCDD concentration would be 180,000."

State of Oregon
 DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
 MAR 11 1991

FAX TRANSMITTAL AIR QUALITY DIVISION

From:

**Peninsula Neighbors
 2410 N Lombard
 Portland, Oregon 97217
 FAX # (503) 243-7943**

823-3162

TO: Terry Obteshka
Fcc: Fred Hansen, Director

FAX #: 229-6124

DATE: 3/8/91

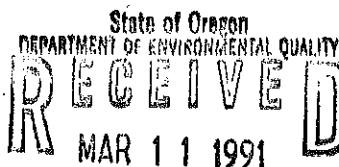
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ARBOR LODGE

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AIR QUALITY DIVISION

March 8, 1991

Mr. Fred Hansen, Director
Department of Environmental Quality
811 SW Sixth Avenue
Portland, Oregon 97204-1390

Dear Mr. Hansen:

Peninsula Neighbors, a neighborhood-based coalition of eight north Portland associations, urges funding support for DEQ's noise control program.

The quality of life in our neighborhoods has been and can be quickly eroded by noise impacts from the airport, PIR, industrial development and other activities that occur within our community. It is of critical importance that citizens have a program that can address these concerns.

Elimination of DEQ's noise control program would be a very big lose especially considering the small percentage it currently holds in the agency's total budget (ie. 4%). It would even seem desirable to increase the program from its current level if that is at all possible.

Please give the noise control program serious consideration and look to all possible ways to maintain or increase this vital program.

Respectfully,

[Handwritten signature: Teri Kellner]

Teri Kellner, President

CC: Terry L. Obteshka, DEQ Noise Control Program Manager
DEQ Noise Program File

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MARCH 11, 1991

ENVIRONMENTAL QUALITY COMMISSION
MR. WILLIAM P. HUTCHISON, JR.
811 S.W. 6TH STREET
PORTLAND, OR 97204

RE: NOISE POLLUTION CONTROL SECTION

DEAR MR. HUTCHISON,

RECENTLY WE BECAME AWARE OF PLANS WHICH WOULD ELIMINATE NOISE POLLUTION CONTROL SUPERVISORS. EVEN THOUGH THERE ARE PRESENTLY THREE POSITIONS ONLY ONE POSITION IS FILLED. WE REQUEST THAT YOU FILL THE VACATED POSITIONS AND MAINTAIN THE THIRD POSITION. WHEN CONSIDERING AREAS TO CUT BACK ON YOU MAY WANT TO CHOOSE ELIMINATING THREE OR FOUR PUBLIC RELATIONS OR PUBLIC AFFAIRS POSITIONS. WE UNDERSTAND THAT THERE ARE NEARLY SEVEN PUBLIC RELATIONS POSITIONS WITHIN DEQ.

FURTHERMORE, WE REQUEST THAT A PUBLIC MEETING BE SCHEDULED BEFORE ANY CONTROL SUPERVISORY POSITIONS ARE ELIMINATED. PLEASE SEND NOTICES TO ALL THE NEIGHBORHOOD ASSOCIATIONS AND COMMUNITY PLANNING ORGANIZATIONS WITHIN THE STATE. ALSO, CITY COUNCILS AND COUNTY COMMISSIONS SHOULD BE INFORMED.

NOISE POLLUTION HAS A TREMENDOUS ADVERSE IMPACT ON THE QUALITY OF OUR LIVES. THE RIDICULOUSLY LOW FINES THAT ARE IMPOSED ON NOISE POLLUTERS ARE NOT DETERENTS TO COMPLY WITH YOUR STANDARDS. NOISE POLLUTED AREAS DISCOURAGE NEW BUSINESSES TO MOVE IN AS WELL AS CAUSING RESIDENTS TO MOVE OUT, THUS, DEVALUING PROPERTY VALUES. INCREASE PENALTIES AND CHARGE INSPECTION FEES.

WE LOOK FORWARD TO HEARING OF THE DATE OF YOUR PUBLIC FORUM IN REGARD TO THE ABOVE. ENCLOSED ARE LISTS OF PEOPLE TO CONTACT.

SINCERELY YOURS,



SHERRY PATTERSON, AREA REPRESENTATIVE
ROSEWOOD ACTION GROUP
18926 S.W. ARROWOOD AVENUE
LAKE OSWEGO, OR 97035

Please pull out & I will Xerox & send everyone a copy: **Sherry Peltzer**, 18926 SW ARROWOOD AVE, LAKE OSWEGO, OR 97035
CONNIE EMMONS 6395161
 Rosewood Action Group

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Doug BOLLAM	3072 Lakeview Blvd.	LD	97035-3650		
Jacqueline TOMMAS	1928 S. MATTOON RD ESTACADA OR	ESTACADA	OR 97023	631-2660	UOLA-FERRARA Hill
Susan Ziolk	16091 S. Winston Dr.	Ore. City	97045	657-6781	Holcomb-Dutton Park Place HOPP
Rickey Reed	P.O. Box 316 RHODODENDRON	RHODODENDRON	97049		RHODODENDRON CPO
Bill Butt	25754 S. Bard RD	Beavercreek, ORE.	97004		
GARY C HARTT	17964 S. WILWAY CITY RD	MULINO OR	97042		
Cheryl D. Weidner	28075 S. BEAVERCREEK RD. MULINO, OR	MULINO, OR	97042	632-4640	Clarks-Highland

DOMINIC MARCINI

CLACKAMAS COUNTY

Jack Johnston	3424 S.W. Hamilton Ct.	Portland Or.	97201		
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Jessica Williamson	14212 S.E. River Rd.	Oak Grove	97264-1113		
ALLEN HOFMANN	7085 SE CYPRESS	MILWAUKIE	97267		NORTH CLACKAMAS CPO
Allan Gifford	11010 SE 54th Place	Milwaukie	97222		Mono
Sandra Kimball	P.O. Box 1467	Clackamas	97015	656-5699	you

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Tim Hein	17055 S. McCubbin Rd	Oregon City	97045		Carver-Ridland-Loyan CPO
Jerry Andersen	2436 Upper Highland Road 2515 SE 47th	Cotton, Ore	97217		COTTON CPO
Elayne Brown - CPO	P.O. Box 15	Cotton Or	97017		Cotton
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Kit Whittaker	906 Main St.	OC	97045		Lorrie Tualat-Staffora
Marlys Rutherford	4455 S.W. Haley Rd	Tualatin	97062	638-6406	Staffora

CLACKAMAS COUNTY COMMUNITY PLANNING ORGANIZATIONS

- 1** BEAVERCREEK CITIZENS ASSOCIATION
(inactive)
- 2** BIRDSHILL NEIGHBORHOOD GROUP
(inactive)
- 3** BONITA MEADOWS NEIGHBORHOOD ASSN.
JOHN SHONKWILER
5335 SW MEADOWS RD, SUITE 251
LAKE OSWEGO, OR 97035
PHONE: HOME-636-8119
OFFICE-
5750 SW Colman
- 4** BORING ACTION NEIGHBORHOOD GROUP
(inactive)
- 5** BULL RUN-CASCADE STUDY GROUP
(inactive)
- 6** CANBY AREA NEIGHBORHOOD DEVELOPMENT ORGANIZATION
(inactive)
- 7** CARUS NEIGHBORHOOD ASSOCIATION
(inactive)
- 8** CARVER-REDLAND-LOGAN NEIGHBORHOOD GROUP
TIM HEIN
17055 S. McCUBBIN RD.
OREGON CITY, OR 97045
Phone: Home-631-3657
Office-
- 9** CENTRAL POINT-LELAND RD.-NEW ERA NEIGHBORHOOD GROUP
(inactive)
- 10** CLACKAMAS NEIGHBORHOOD GROUP
(INACTIVE)
- 11** CLARKES HIGHLAND NEIGHBORHOOD ASSN.
(inactive)
- 12** COLTON COMMUNITY PLANNING ORGANIZATION
GEORGE LEDBURY
P.O. BOX 151
COLTON, OR 97017
Phone: Home-630-6041
- 13** COTTRELL LAND USE PLANNING ASSN.
(inactive)
- 14** DAMASCUS COMMUNITY ASSOCIATION
SUSAN LESTER
16796 S.E. ROYER RD.
CLACKAMAS, OR 97015
Phone: Home-658-5083
Office-
- 15** EAGLE CREEK-BARTON COMMUNITY ACTION COUNCIL, INC.
(inactive)
- 16** FAR WEST CLACKAMAS CTY. ASSN. OF SHARON COHEN NEIGHBORHOODS
26871 S.W. PETE'S MTN. RD.
WEST LINN, OR 97068
Phone: Home-655-0787
Office-
- 17** FIRWOOD NEIGHBORS, INC.
BUD SPRINGER
42400 S.E. TRUBEL RD.
SANDY, OR 97055
PHONE: Home-668-5979
Office-
- 18** FISCHERS MILL-VIOLA NEIGHBORHOOD GROUP
(inactive)
- 19** FOREST HIGHLAND NEIGHBORHOOD GROUP
~~TIM McNAMARA~~
~~13756 S.W. KNAUS RD.~~
LAKE OSWEGO, OR ~~97034~~
Phone: Home-636-2363
Office-
- 20** GOVERNMENT CAMP PROPERTY OWNER'S MARYANNE HILL ASSN.
P.O. BOX 63
GOVERNMENT CAMP, OR 97028
Phone: Home-272-3281
Office-

CLACKAMAS COUNTY COMMUNITY PLANNING ORGANIZATIONS

21 GRANT PARK COMMUNITY PLANNING
JOE MARTIN
19800 S.E. QUALLEY RD.
CLACKAMAS, OR 97015
Phone: Home-658-3709
Office-

22 HOLCOMB OUTLOOK-PARK PLACE
VICTOR OVERTURF NEIGHBORHOOD GROUP
P.O. BOX 615
OREGON CITY, OR 97045
Phone: ~~Home~~ 656-4022 *oje*
Office-

23 JENNINGS LODGE COMMUNITY COUNCIL
(inactive)

24 LADD HILL COMMUNITY CLUB
CHARLES CLOCK
32313 S.W. LADD HILL RD.
WILSONVILLE, OR 97070
Phone: Home-625-6966
Office-

25 MOLALLA NEIGHBORHOOD GROUP
(inactive)

26 MT. HOOD CORRIDOR
JACKIE YATES
P.O. BOX 250
BRIGHTWOOD, OR 97011
Phone: Home-622-5374
Office-221-3168

27 MULINO AREA NEIGHBORHOOD ASSN.
(inactive)

28 N. CLACKAMAS CITIZENS ASSN.
SANDI PAUL
8473 S.E. HOOD ST.
CLACKAMAS, OR 97015
Phone: Home-
Office-

29 OAK LODGE COMMUNITY COUNCIL
JESSICA WILLIAMSON
14212 S.E. RIVER RD.
MILWAUKIE, OR 97267
Phone: Home-654-4546
Office-

30 OATFIELD RIDGE NEIGHBORHOOD GROUP
RALPH CLIFFORD
23480 S.E. RUSSCLIFF LANE
MILWAUKIE, OR 97222
Phone: Home-654-3391
Office-

31 PLANNING AREA COMMUNITIES OF
(inactive) ESTACADA

32 RHODODENDRON NEIGHBORHOOD GROUP
JACK ARNOLD
PO BOX 967
PORTLAND, OR 97207
Phone: Home-222-1951
Office-

33 ROCK CREEK COMMUNITY ASSN.
MIKE SCHMAUCH
14651 S.E. CHARJAN ST.
CLACKAMAS, OR 97015
Phone: Home-658-4502
Office-685-3841

34 ROSEWOOD ACTION GROUP
SHERRY PATTERSON
18926 S.W. ARROWWOOD AVE.
LAKE OSWEGO, OR 9034
Phone: Home-639-5161
Office-

35 SANDY COMMUNITY ASSN. OF
(inactive) NEIGHBORHOODS, INC.

36 SKYLAND NEIGHBORHOOD GROUP
(inactive)

37 SOUTH CANBY CITIZENS ASSN.
ARLENE PETERSON
8975 BARNARDS RD.
CANBY, OR 97013
Phone: Home-651-2446
Office-

38 SOUTH CLACKAMAS CTY. CITIZENS ASSN.
(inactive)

39 SOUTHGATE PLANNING ASSN.
ARLENE STOKES
8801 S.E. 80TH AVE.
PORTLAND OR 97206
Phone: Home-774-1957
Office-

40 SOUTHWOOD-WOODLAND PARK NEIGHBORHOOD
(inactive) GROUP

CLACKAMAS COUNTY COMMUNITY PLANNING ORGANIZATIONS

41 STAFFORD-TUALATIN VALLEY COMMUNITY
TOM WHITTAKER PLANNING
21000 WISTERIA RD.
WEST LINN, OR 97068
Phone: Home-656-1523
Office-

42 SUNNYSIDE UNITED NEIGHBORS
MAURICE LARSEN
14310 S.E. 122ND AVE.
CLACKAMAS, OR 97015
Phone: Home-698-2328
Office-225-3167

43 WEST MT. SCOTT NEIGHBORHOOD ASSN.
JOE AZARK
10067 S.E. 92ND AVE.
PORTLAND, OR 97266
Phone: Home-771-2194
Office-

AURORA-BUTTEVILLE-BARLOW NEIGHBORHOOD GROUP
JOY SODERQUIST
24593 BUTTEVILLE RD
AURORA, OR 97002
Phone: Home-678-5789

CPO	NAME	ADDRESS	CITY	ZIP	TELEPHONE #
Rosewood Action	SHERRY PATTERSON	18926 SW ARROWOOD	LD	97035	6395161
OLCC	Cheryl Broetje-McLaughlin	3033 SE Courtney	Milw	97222	659-4698
R.C.C. ch	Jessica D. Williamson	14212 S. E. River Rd	Milw	97045	654-4544
V.F.M	R. B. MESSSEGER	19348 S. Rippe Rd	Milw	97045	631-2740
YCCA	Tom Carothers	8029 SE Hood	Milw	97267	655-7407
YCCA	Allen Hofmann	7085 SE Cypress	Milw	97227	659-1161
D.C.A.	SUSAN LESTER	16796 S.E. Royer Rd.	CLACK	97015	658-5083
Statual.	Marlys Rutherford	1455 SW Natayan Rd.	Tualatin	97062	-638-6404
Rosewood	Connie Emmons	5101 SW Dora Lake	OS. OR	97035	620-6111
LOPP	DOUG McLAW	16707 S. WICKHAM RD	OR	97045	631-2765
more - Butteville	Joy Soderquist	24593 Butteville Rd	OR	97002	678-5789
1-FM	Dave Kurkoski	20651 S. Sprague Rd	OC	97045	631-2460
Antes-Highland	Cheryl Weidner	28015 S. Beaver Creek Rd.	Milw	97042	632-4640
field Ridge	Lee J. J. J.	5315 S.E. Skinsaw Rd.	Milwaukie	97267	684-6063
Orth Clackamas	Joe Lowe	7786 SE Clackamas Rd	Milwaukie	97267	657-0673
BORING	JOHN MELVIN	29081 SE Church Rd	BORING	97009	663-4344
JCCA	JOHN HILLEY	6401 S.E. THIESSEN	MILWAUKIE	97267	654-8413

L.O.

PKS, REC. OPEN
SPACE

Charles C. Anderson
1552 Highland Dr.
Lake Oswego OR 97034

Ross Schultz
6215 SW Pamela
Portland OR 97219

Don Patch
252 Berwick Rd.
Lake Oswego OR 97034

Missy Bechen
1128 North Shore Rd.
Lake Oswego OR 97034

Iral Ragenovich
119 Touchstone Terrace
Lake Oswego OR 97035

LO: PLANNING
COMMISSION

Jonathan Harnish
245 Chandler Place
Lake Oswego OR 97034

Charles Oldham
901 Atwater Rd.
Lake Oswego OR 97034

Adrienne Brockman
15780 Springbrook Court
Lake Oswego OR 97034

F. Barton DeLacy
621 SW Morrison Ste. 400
Portland OR 97205

William L. Carroll
3771 Lake Grove Ave.
Lake Oswego OR 97035

Martin W. Rohrer
16 Abelard
Lake Oswego OR 97035

Sherry Finnigan
3700 Upper Dr.
Lake Oswego OR 97035

L O C C

Alice L. Schlenker
257 Iron Mountain Blvd.
Lake Oswego OR 97034

Daniel E. Anderson
1651 Larch St.
Lake Oswego OR 97034

John R Jack Churchill
788 Cabana Lane
Lake Oswego OR 97034

William Holstein Pres.
2747 Glen Haven Rd.
Lake Oswego OR 97034

Heather Chrisman
940 Upper Devon Lane
Lake Oswego OR 97034

Merry Colvin
1224 Bayberry Rd.
Lake Oswego OR 97034

Ed Marcotte
95 D Ave.
Lake Oswego OR 97034

3-6-91

Friends of Bryant Wood Park Mtg

Name address city zip phone

Sherry Patterson 18926 SW Arcwood 1097035 639-5561

Myron R. Wilson 5318 SW LAKEVIEW #4 L.O. 635-8194

Edward & Leonard Stark 5050 SW Phild Rd L.O. 639-2807

Relen Tucker 17948 S.W. Trualata A 639-2934

Stacy Gunderson 19596 River Run Dr. L.O. 638-6261

Bill McCoy 18851 SW Indian Sp. Cir 637-9391

Connie Emmons 5101 SW Dawn L.O. 620-6111

Art Balezarek 18631 SW KRISTI WAY 97035 620-8430

Sue Grant 4251 Woodside Cir L.O. 620-8088

Helya Reighardt 17838 SW Tamara, L.O. 655-6052

Ann Lenn 4460 DOW WIND, RIVERGARD L.O. 620-9976

GARY DIETRICH 15543 WILLAGE DR. L.O. 697-8802

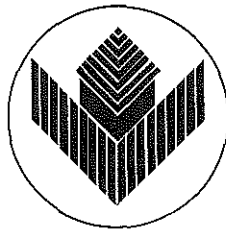
Robert O. Byr 18035 Central Ave. L.O. 639-4965

We the undersigned officers and board members of the designated Community Planning Organizations request that the Noise Pollution Control Section of the Department of Environmental Quality be continued.

Name	Address	CPO
Sherry Patterson	18926 SW Arrowood Lake Oswego	ROSEWOOD ACTION GROUP 97035
Meryl Brody-McLaughlin	3033A SE Courtney, Milw	97222 Oak Lodge Comm. Council
Jessica S. Williamson	14212 S.E. River Rd. Milw	97267 Oak Lodge Comm. Council
R. B. DESSEGER	19348 S. RIDGE RD.	97045 VIOLA FISCHER MILL
Tom Caythors	8029 SE Hood, Milw	97267 NORTH CLATSOP CITIZENS ASSOCIATION
Olly Hoffman	7085 SE CYPRESS MILW	97267 NORTH CLATSOP CITIZEN ASSN.
Susan Lewis	16796 S.E. Royal Rd. Cl	97045 C.P.O. - DAMASCUS
Marlyse H. Rutherford	4455 S.W. Haley Rd. Tualata	97062 Stafford / Tualata
Constance L. Emmons	5101 SW Dawn Lake Oswego	97035 Rosewood Action Group
Jacqueline Thomas Saffell	19288 S. MATTOON RD. ESTADA	97023 Viola - Fischer Mill
Cherie M. Resseger	19348 S Ridge Rd. Or. City	- Viola - Fischer Mill
Don Imhoff	16707 S. WACHTMAN, OREGON CITY	H.O.P.P. CPO
Joy Ann Anderson	24593 Butteville Rd, Aurora OR	97002 Aurora - Butteville - Barlow
David L. Kurbosh	20651 S. Sprague Rd., O.C.	94045 Viola - Fishers Mill
Cheryl Madnes	28075 S. BEAVERCREEK RD. MELBRO	Clarke - Highland
Lee Spicir	5315 S.E. Thieden Rd. Milw	97267 Clatsop Ridge *
John L. Mehin	4581 SE Church Rd. Briny	BRINY

* Not active

T H E C I T Y O F



V A N C O U V E R

March 7, 1991

POST OFFICE BOX 1995
VANCOUVER, WASHINGTON
98668-1995

Environmental Quality Commission
State of Oregon
811 S.W. Sixth Avenue
Portland, OR 97204-1320

SUBJECT: Port of Portland Noise Abatement Plan for Portland International Airport

Dear Commission Members:

Please note the following concerns regarding the Port of Portland's Noise Abatement Plan. The City of Vancouver does not feel that these concerns were given adequate review and consideration by the Port Officials during its update process.

1. The Noise Abatement Plan does not adequately account for the noise impacts on Vancouver when Runway 20 is in use. An SEL of 95.5dBA was measured last year in the area near Ellsworth Elementary School. This area is listed in the 1990 Noise Exposure Map as being outside of the 55 L_{dn} contour line. However, use of Runway 20 can account for over 1000 arrivals within one year, many of which will exceed a decibel reading of 90dBA. For this reason, the L_{dn} model fails to account for the environmental impact caused when Runway 20 is in use. The City of Vancouver has received numerous complaints about severely noisy aircraft during predawn hours. An SEL of 95.5dBA exceeds the sound of an alarm clock. The reoccurring of such noise events on a continual basis must surely constitute a significant negative environmental impact. Yet, the system of noise measurement used by the Port does not even indicate a concern.
2. The Capacity Enhancement Plan, referred to in the Noise Abatement Plan, recommends overflights of Vancouver immediate after takeoff. In fact, it indicates that such overflights are necessary, and not an option, when capacity reaches its 2010 estimate. Such overflights will definitely produce a negative environmental impact on residential neighborhoods in Vancouver. Again the Port of Portland uses L_{dn} projections to indicate that noise levels will not increase. However, the use of the L_{dn} statistic does not adequately account for the significant impact that occurs during those times that the Airport sends these flights over Vancouver.

3. The City of Vancouver is also concerned about the effects Oregon's Measure 5 will have upon staff cutbacks at the Department of Environmental Quality. Much of the noise mitigation proposed by the Port of Portland depends upon procedures undertaken by pilots, traffic controllers and noise abatement staff at the Airport. If DEQ suffers staff cutbacks and its ability to monitor the Port of Portland is subsequently reduced, then there is a potential that these noise abatement procedures might become less functional.

For the reasons stated above, the City of Vancouver requests that you not approve the Port of Portland's Noise Abatement Plan.

Sincerely,


KAREN SCOTT

Director

Community Preservation and Development Department

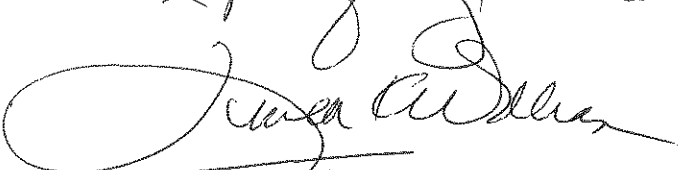
Before the EAC

In re: Pulp & Paper
NPOES

Local # 290
Motion to Cede
Time of Oral Argument

Please cede all time that I may
have allotted to argue re: Basin Cascade
Matrix to Identify issues to NCA and
Columbia River Writ, whose positions and
arguments in support undersigned counsel
adopts.

Dated March 11, 1991

Respectfully submitted

for Local # 290

6401 S. E. Thiessen
Milwaukie, Oregon 97267
March 11, 1991

William P. Hutchison, Jr., Chairman
Environmental Quality Commission
Tooze Shenker Holloway & Duden
333 S.W. Taylor Street
Portland, OR 97204-2496

Dear Mr. Hutchison:

I have been acquainted with the Noise Pollution Control Section of DEQ for a number of years, and I have been aware that attrition had reduced the staff from eight to three people; but I was unaware until recently that staff now consists of one person who is essentially reduced to answering the phone. It is not possible for one person to conduct an effective program.

The testing of vehicle noise emissions at DEQ auto testing stations has finally reduced the number of extremely noisy vehicles in the metropolitan area, and livability on or near busy roadways has been greatly improved for many thousands of people. The progress in this area was achieved after Mr. Hansen took over as Director of DEQ. I suspect that too few of us communicated our experience to him. The knowledge that the suggestion to eliminate the Noise Pollution Control Section came solely from the Department of Environmental Quality (ascertained by four long distance calls to Salem) leaves me rather stunned.

The list of problems related to noise could easily be quoted ad infinitum. One article from U. S. News and World Report (7/16/84) states:

Fifty percent of the U.S. population is exposed every day to noise that interferes with speech or sleep.

- * Los Angeles schools located alongside freeways scored well below their social and economic counterparts in quieter neighborhoods on standardized reading and math tests.

Constant noise is linked to high blood pressure, heart disease and ulcers.

Oregon residents put noise pollution fourth after crime, property taxes and quality of education (as a problem area).

From the Washington University School of Medicine in St. Louis, we learn:

- * Depression is a significant factor in the development of coronary artery disease. One in five who were depressed had coronary artery disease before being diagnosed. Depressed patients were twice as likely to have a heart attack, undergo surgery, or die. (Oregonian 8/25/88)

- * Exposure to constant noise can and does produce anger, frustration and depression.

* Not included in oral presentation on 3/11/91.

William P. Hutchison, Jr., Chairman

Page 2

March 11, 1991

* The number of admissions to a mental hospital from a residential zone subjected to intense aircraft noise was significantly greater than from a comparable demographic area not exposed to these noise conditions. (Physicians guide to Noise Pollution, Dept. of Environmental, Public, and Occupational Health, AMA Nov. '71)

Noise is a nuisance. Noise is a hazard. Noise is a killer. Which of these statements is true? All three are. (The Optimist, April 1982)

Forty epidemiological studies conducted in Europe show a link between noise and cardiovascular disease. (EPA Journal, Oct. '79)

I could go on and on, with references in every instance. I believe that our government does not want to fund meaningful epidemiological studies on the effects of excessive noise as we are perhaps the most noisy country in the world, and the result of careful studies would open a real can of worms.

Referring again to the U.S. News poll that indicated Oregonians were concerned with crime, quality education and noise, we should look at the cost associated with resolving those problems. Consider the \$170,000 annual budget for three employees (although but one position is filled) with which noise pollution control is associated. We know that the program has been to an important degree effective statewide. How would you like to fight crime or provide quality education with \$170,000 a year? Noise pollution control can be a most cost effective program. Noise in many instances is easy to control: the offender generally is easily identified, and in almost every instance something can be done about the problem. Why is so little emphasis put upon a fee schedule for the Noise Pollution Control program? My understanding is that DEQ has permit fees for a number of programs. I pay \$30 annually for a burning permit to burn two hot wood fires a year in the middle of acres of bare land, and I am all for the program.

Beijing, China, has had a notably successful noise control program. The secret: stiff fines for violators. I do not think that DEQ has ever assessed a fine for noise pollution. Noise is a pervasive and pernicious hazard, and it is so often needless noise. Why not fine the offender? The money will go to the general fund.

Noise control is an incremental and progressive process. If we eliminate the program now, it will be more difficult to implement it again in the future.

In her inaugural address Governor Roberts cited "three key areas where Oregon needs immediate and measurable progress." One area was "keeping Oregon livable under the pressures of growth and change." The NOISE POLLUTION CONTROL SECTION is a part of DEQ that implements a land-use planning goal that addresses human needs, that protects people, and that works to keep communities livable. Apparently DEQ's priorities are not in accord with the governor's or we would not

* Not included in oral presentation on 3/11/91.

William P. Hutchison, Jr., Chairman

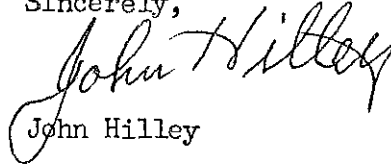
Page 3

March 11, 1991

be here today trying to defend the Noise Pollution Control Section. Instead of "immediate and measurable progress toward keeping Oregon livable," the Department of Environmental Quality wants to eliminate noise pollution control.

In her first major speech after her inaugural address, Governor Roberts said, "While this is not the time to weaken Oregon's land-use planning law, we are constantly protecting it from onslaughts." Today, March 11, 1991, we are here trying to protect the land-use planning law from an onslaught.

Sincerely,

A handwritten signature in cursive script that reads "John Hilley". The signature is written in dark ink and is positioned above the typed name.

John Hilley

cc: Governor Barbara Roberts
Martha Pagel, Environmental Advisor
Fred Hansen, Director, DEQ

Kenton Neighborhood Association
8105 North Brandon Portland, Oregon 97217
(503) 285-7843

March 11, 1991

William P. Hutchison
Chair, Environmental Quality Commission
811 S.W. Sixth Avenue
Portland, OR 97204

Dear Mr. Hutchison,

The Kenton Neighborhood Association is opposed to the reduction and/or elimination of the DEQ Noise Program. The impact on our neighborhood from noise pollution is such that we request an increase in the funding for the program.

The Kenton neighborhood is impacted by the Portland Speedway, Portland International Raceway, Interstate-5, and airplanes in addition to the usual neighborhood noises. Noise from our "extra" sources is a factor in our daily life. PIR begins its schedule in January and runs through November and the Portland Speedway has requested extra race dates for this year. Use of the tracks means the neighborhood is impacted throughout the season, inasmuch as practice is as important to racers as the events. The efforts of the DEQ Noise Program and the Portland Noise Control Officer have helped us, but all would agree that we have a long way to go to having a liveable neighborhood in respect to noise.

It was very distressing to learn that the DEQ Noise Program is not even listed in the proposed budget for FY 91-93. The dollar and personnel figures for this biennium as compared to the 1989-1991 biennium are interesting for they show a substantial increase in the proposed budget. For 1991-1993: \$330 million is in the proposed budget (compared to \$210 million in the approved 1989-1991 budget). For personnel: 1989-1991



Page 2 William P. Hutchison

had 486 authorized positions and recommended for 1991-1993 are 576 positions. When looking at these figures, it is difficult to understand why the Noise Program budget of approximately \$320,000 is proposed for elimination.

In an Oregonian article of March 8, 1991, entitled "DEQ proposes fee program to fight pollution" it is stated that "The state has until 1993 to complete an air emission fee program and submit it to the federal Environmental Protection Agency for approval." If this is indeed the case, that fees will be charged to help administer a program, then it seems reasonable that a similar fee program be available for the noise polluters of our state. The amendments to House Bill 3290 sponsored by Representative Mike Burton proposes a similar approach. The Kenton Neighborhood Association requests that the Environmental Quality Commission support this legislation.

Thank you for the opportunity to testify. Your support of this program and legislation are essential to the liveability of our neighborhood.

Sincerely,

A handwritten signature in cursive script that reads "Pam Arden".

Pam Arden, Chair

DEQ proposes fee program to fight pollution

By GAIL KINSEY HILL
of The Oregonian staff

SALEM — The state Department of Environmental Quality wants a sweeping new fee program to regulate air pollution, according to a legislative proposal presented to lawmakers.

The plan is designed to bring in more than \$18 million a year and reduce pollution by as much as 40 percent in the next decade. However, it met harsh resistance Wednesday from a House committee where the program made its debut.

The intent, said Rep. John Watt, R-Medford, "seems to be to make DEQ bigger and bigger," when it should be concentrating on pollution reduction.

Business groups faulted the plan

as well, objecting to the level of the fees and the self-perpetuating bureaucracy it seemed to create.

"Where are the policies? Where are the specific procedures?" asked Douglas Morrison, a lobbyist for the Northwest Pulp and Paper Association. "We're talking about millions and millions of dollars here. They better figure out where it's going before they start raising all that money."

DEQ officials consider the proposal innovative and comprehensive. Not only is it designed to meet new federal requirements scheduled for enactment later this year, but is aimed at cleaning up the state's troublesome pockets of bad air, they said.

Under the program, manufacturing industries would pay about 14

percent, or \$2.7 million of the annual total. About half of that would come from Oregon's 10 pulp and paper mills, Morrison estimated.

The remainder of the fees would apply to motor vehicles, forest slash burning, woodstoves and field burning. These targets go beyond meeting federal requirements and give the state the chance to improve problem pollution that has persisted for years, DEQ officials said.

Motor vehicles, for example, are the largest single source of air pollution in the state, accounting for 36 percent of total emissions statewide. Although DEQ's proposal hasn't settled on a specific fee yet, it has suggested charging car owners \$3 a year, enough to raise about \$7.8 million.

The revenues would be used to

administer the program and to offer grants, subsidies and loans to develop cleaner ways of doing things.

Motor vehicle fees, for example, could be used for mass transit and development of alternative sources of fuel. Money from woodstove fees — \$3 for each cord of wood purchased — could provide no-interest loans toward the purchase of certified stoves.

The state has until 1993 to complete an air emission fee program and submit it to the federal Environmental Protection Agency for approval.

The DEQ is pushing for legislative action this session, however, and federal regulators agreed Wednesday it would be imprudent to wait any longer.

OC
3-8-91

MIKE BURTON
DISTRICT 17

REPLY TO ADDRESS INDICATED:

- House of Representatives
Salem, Oregon 97310-1347
- 6937 N. Fiske
Portland, Oregon 97203



HOUSE OF REPRESENTATIVES
SALEM, OREGON
97310-1347

March 8, 1991

William P. Hutchison
Chair, Environmental Quality Commission
811 S. W. Sixth Avenue
Portland, OR 97204

Dear Mr. Hutchison,

It is my intention to introduce amendments to HB 3290. Drafts of those amendments are attached for your review. These amendments will essentially replace HB 3290 as originally drafted.

I would appreciate your committee's review and comments, and encourage you to support this measure when it goes before legislative committee.

Sincerely,

A handwritten signature in cursive script, appearing to read "Mike Burton".

Mike Burton
State Representative

Attachment

tl

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure as introduced.

Requires permit for certain noise emissions. Subjects person to penalty if person emits noise above level established by Environmental Quality commission without permit.

A BILL FOR AN ACT

Relating to noise emissions; creating new provisions; amending ORS (enter legal references).

Be It Enacted by the People of the State of Oregon:

SECTION 1. Sections 2 to 8 of this Act are added to and made part of ORS chapter 467.

SECTION 2. As used in this chapter:

- (1) "Commission" means the Environmental Quality Commission.
- (2) "Department" means the Department of Environmental Quality.

SECTION 3. By rule the commission may require permits for noise emission sources classified by type of noise, by type of noise emission source, or by area of the state. The permits shall be issued as provided in ORS 468.065.

SECTION 4. (1) Without first obtaining a permit pursuant to ORS 468.065, no person shall:

(a) Emit or allow to be emitted any noise for which a permit is required under section 3 of this 1991 Act into the outdoor atmosphere from any noise pollution source.

(b) Construct, install, establish, develop, modify, enlarge or operate any noise source for which a permit is required under section 3 of this 1991 Act.

- (2) No person shall increase in volume emissions from any

noise emission source for which a permit is required under section 3 of this 1991 Act in excess of the permissive emissions specified under any existing permit.

SECTION 5. (1) The commission may require notice prior to the construction of new emission sources, specified by class or classes, in its rules or standards relating to noise control.

(2) Within 30 days of receipt of such notice, the commission may require, as a condition precedent to approval of the construction, the submission of plans and specifications. After examination thereof, the commission may request corrections and revisions to the plans and specifications. The commission may also require any other information concerning noise emissions necessary to determine whether the proposed construction is in accordance with the provisions of this chapter and applicable rules or standards adopted under this chapter.

(3) If the commission determines that the proposed construction is in accordance with the provisions of this chapter and applicable rules or standards adopted under this chapter, it shall enter an order approving the construction. If the commission determines that the construction does not comply with the provisions of this chapter and applicable rules or standards adopted under this chapter, it shall notify the applicant and enter an order prohibiting the construction.

(4) If within 60 days of the receipt of plans, specifications or any subsequently requested revisions or corrections to the plans and specifications or any other information required pursuant to this section, the commission fails to issue an order, the failure shall be considered a determination that the construction may proceed. The construction must comply with the plans, specifications and any corrections or revisions thereto or other information, if any, previously submitted.

(5) Any person against whom the order is directed may, within 20 days from the date of mailing of the order, demand a hearing. The demand shall be in writing, shall state the grounds for hearing and shall be mailed to the director of the department. The hearing shall be conducted pursuant to the applicable provisions of ORS 183.310 to 183.550.

(6) For the purpose of this section, "construction" includes installation and establishment of new noise emission sources. Addition to or enlargement or replacement of a noise emission source, or any major alteration or modification therein that significantly affects the emission of noise shall be considered as construction of a new noise emission source.

SECTION 6. Any person who complies with the provisions of section 5 of this 1991 Act and receives notification that construction may proceed in accordance therewith is not relieved from complying with any other applicable law, rule, or standard.

SECTION 7. (1) Pursuant to rules adopted by the commission, the department shall establish a program for measurement and testing of noise emission sources and may perform such testing or may require any person in control of a noise emission source to test, subject to the provisions of subsections (2) and (3) of this section.

(2) All measurement and testing shall be conducted in accordance with methods used by the department or equivalent methods of measurement acceptable to the department.

(3) All measurement and testing performed under this section shall be conducted in accordance with applicable safety rules established by law.

SECTION 8. Whenever under the provisions of section 2 to 7 of this 1991 Act rules or standards are adopted by the commission, the commission shall furnish to all building permit issuing agencies within its jurisdiction copies of such rules and standards.

SECTION 9. ORS 468.065 is amended to read:

468.065. Subject to any specific requirements imposed by ORS (enter legal references), chapter 467 and this chapter:

(1) Applications for all permits authorized or required by ORS (enter legal references), chapter 467 and this chapter shall be made in a form prescribed by the department. Any permit issued by the department shall specify its duration, and the conditions for compliance with the rules and standards, if any, adopted by the commission pursuant to ORS (enter legal references), chapter 467 and this chapter.

(2) By rule and after hearing, the commission may establish a schedule of permit fees for permits issued pursuant to ORS (enter legal references) and section 3 of this 1991 Act. The permit fees contained in the schedule shall be based upon the anticipated cost of filing and investigating the application, of issuing or denying the requested permit, and of an inspection program to determine compliance or noncompliance with the permit. The permit fee shall accompany the application for the permit.

(3) The department may require the submission of plans, specifications and corrections and revisions thereto and such other reasonable information as it considers necessary to determine the eligibility of the applicant for the permit.

(4) The department may require periodic reports from persons who hold permits under ORS (enter legal references), chapter 467 and this chapter. The report shall be in a form prescribed by the department and shall contain such information as to the amount and nature or common description of the pollutant, contaminant or waste and such other information as the department may require.

(5) Any fee collected under this section shall be deposited in the State Treasury to the credit of an account of the department. Such fees are continuously appropriated to meet the administrative expenses of the program for which they are collected.

SECTION 10. ORS 468.070 is amended to read:

468.070. (1) At any time, the department may refuse to issue, modify, suspend, revoke or refuse to renew any permit issued pursuant to ORS 468.065 if it finds:

(a) A material misrepresentation or false statement in the application for the permit.

(b) Failure to comply with the conditions of the permit.

(c) Violation of any applicable provision of this chapter.

(d) Violation of any applicable rule, standard or order of the commission.

(2) The department may modify any permit issued pursuant to ORS 468.065 if it finds that modification is necessary for the proper administration, implementation or enforcement of the provisions of ORS (enter legal references), chapter 467 and this chapter.

(3) The procedure for modification, suspension, revocation or refusal to issue shall be the procedure for a contested case as provided in ORS 183.310 to 183.550.

SECTION 11. ORS 468.090 is amended to read:

468.090. (1) In case any written substantiated complaint is filed with the department which it has cause to believe, or in case the department itself has cause to believe, that any person is violating any rule or standard adopted by the commission or any permit issued by the department by causing or permitting water pollution, noise pollution or air pollution or air contamination, the department shall cause an investigation thereof to be made. If it finds after such an investigation that such a violation of any rule or standard of the commission or of any permit issued by the department exists, it shall by conference, conciliation and persuasion endeavor to eliminate the source or cause of the pollution or contamination which resulted in such violation.

(2) In case of failure to remedy the violation, the department shall commence enforcement proceedings pursuant to the procedure set forth in ORS 183.310 to 183.550 for a contested case.

SECTION 12. ORS 468.095 is amended to read:

468.095. (1) The department shall have the power to enter upon and inspect at any reasonable time, any public or private property, premises or place for the purpose of investigating

either an actual or suspected source of water pollution, noise pollution or air pollution or air contamination or to ascertain compliance or noncompliance with any rule or standard adopted or order or permit issued pursuant to ORS (enter legal references), chapter 467 and this chapter. The commission shall also have access to any pertinent records relating to such property, including but not limited to blueprints, operations and maintenance records and logs, operating rules and procedures.

(2) Unless classified by the director as confidential, any records, reports or information obtained under ORS (enter legal references), chapter 467 and this chapter shall be available to the public. Upon a showing satisfactory to the director by any person that records, reports or information, or particular parts thereof, other than emission data, if made public, would divulge a secret process, device or method of manufacturing or production entitled to protection as trade secrets of such person, the director shall classify such record, report or information, or particular part thereof, other than emission data, confidential and such confidential record, report or information, or particular part thereof, other than emission data, shall not be made part of any public record or used in any public hearing unless it is determined by a circuit court that evidence thereof is necessary to the determination of a issue or issues being decided as a public hearing.

SECTION 13. ORS 468.100 is amended to read:

468.100. (1) Whenever the commission has good cause to believe that any person is engaged or is about to engage in any acts or practices which constitute a violation of ORS (enter legal references), chapter 467 and this chapter, or any rule, standard or order adopted or entered pursuant thereto, or if any permit issued pursuant to ORS (enter legal references), chapter 467 and this chapter, the commission may initiate actions or proceedings for legal or equitable remedies to enforce compliance thereto or to restrain further violation.

(2) The proceedings authorized by subsection (1) of this section may be initiated without the necessity of prior agency notice, hearing and order, or during said agency hearing if it has been initially commenced by the commission.

(3) The provisions of this section are in addition to and not in substitution of any other civil or criminal enforcement provisions available to the commission. The provisions of this section shall not prevent the maintenance of actions for legal or equitable remedies relating to private or public nuisances brought by any person, or by the state in relation to any person without prior order of the commission.

SECTION 14. ORS 468.120 is amended to read:

ORS 468.120. (1) The commission, its members or a person designated by and acting for the commission may:

(a) Conduct public hearings.

(b) Issue subpoenas for the attendance of witnesses and the production of books, records and documents relating to matters before the commission.

(c) Administer oaths.

(d) Take or cause to be taken depositions and receive such pertinent and relevant proof as may be considered necessary or proper to carry out duties of the commission and department pursuant to ORS (enter legal references), chapter 467 and this chapter.

(2) Subpoenas authorized by this section may be served by any person authorized by the person issuing the subpoena. Witnesses who are subpoenaed shall receive the same fees and mileage as in civil actions in the circuit court.

SECTION 15. ORS 467.020 is repealed.

CITIZEN'S ASSOCIATION OF PORTLAND (C.A.P.)

P.O. BOX 17222
PORTLAND, OREGON 97217

January 31, 1991

William P. Hutchison, Jr., Chairman
Tooze Shenker Holloway & Duden
333 SW Taylor Street
Portland, OR 97204-2496

RE: Noise Control Section of DEQ

Dear Sir:

It has been brought to our attention that the Noise Control Section of DEQ is slated for possible complete elimination. In our opinion this would be a horrendous mistake. We are very disturbed over this idea and feel that you are sending Oregon back into the dark ages. Oregon prides itself on being a leader and we are one of the national leaders in Noise Control. Idaho is taking steps to follow our lead. Now you want to go backward and eliminate a much needed resource.

Citizens Association of Portland (C.A.P) was formed over the noise issue because of the unnecessary excessive noise generated by Portland International Raceway (P.I.R.) into the neighborhood. Noise in general has adverse impact on neighborhood liveability, not excluding the health problems it can cause.

We are rapidly becoming a nation of older individuals who are unable to endure loud and excessive noise which can affect us physically, emotionally, and mentally. Radios such as the boom boxes, stereo amplifiers, and boombusters could be played as loud as wanted. Mufflers could be removed from race cars, motorcycles, trucks, and any other vehicles. Ordinary law abiding citizens would have no place to go for relief.

Due to the passing of Measure 5, we know there has to be budget cuts. The Noise Control Section has already taken as many as it should have to take and is due for another. We'll accept that in place of eliminating a very vital function for our society. The budget for the Noise Control Section is around \$320,000. This is not a very large amount for

a section that is responsible for the entire state of Oregon and which provides a valuable service aimed at increasing the liveability of our state. Please take a closer review of this proposed action.

Thank you for taking this letter into consideration.

Sincerely,



Sue Guentner
President

CC The Honorable Barbara Roberts
The Honorable Mike Burton
The Honorable Margaret Carter
Fred Hansen, Director, DEQ

March 8, 1991

Mr. Fred Hansen, Director
Department of Environmental Quality
811 SW Sixth Avenue
Portland, Oregon 97204-1390

Dear Mr. Hansen:

Peninsula Neighbors, a neighborhood-based coalition of eight north Portland associations, urges funding support for DEQ's noise control program.

The quality of life in our neighborhoods has been and can be quickly eroded by noise impacts from the airport, PIR, industrial development and other activities that occur within our community. It is of critical importance that citizens have a program that can address these concerns.

Elimination of DEQ's noise control program would be a very big lose especially considering the small percentage it currently holds in the agency's total budget (ie. 4%). It would even seem desirable to increase the program from its current level if that is at all possible.

Please give the noise control program serious consideration and look to all possible ways to maintain or increase this vital program.

Respectfully,

Teri Kellner

Teri Kellner, President

CC: Terry L. Obteshka, DEQ Noise Control Program Manager
DEQ Noise Program File



February 4, 1991

Dear Commissioner,

The Board of University Park Neighborhood Association has learned that the DEQ noise program has been targeted for cutbacks in funding or possibly even elimination. We are absolutely opposed to placing the DEQ noise program in this position.

While the long troubling difficulties with the loud PIR racetrack operations in our area has focused our attentions on the environmental pollutant - "noise", we additionally live next to the Swan Island ship repair facilities that also manage to create loud noises at any hour of the day or night. We have been subjected to un-controlled releases of high pressure steam from vessels being shut down for repairs which produces loud enough sounds to drown out jet aircraft leaving PDX on flight paths over our neighborhood for California destinations.

We are therefore very sensitive to noise in all its various forms in our environment which contributes to the degradation of our neighborhood. Any paring back of the meager efforts the DEQ is able to presently muster in regard to noise control will be absolutely un-acceptable. Such an action would result in our strongest support, through the neighborhood coalition and elected representatives, to pursue this matter vigorously using all means at our disposal.

Your support not only of the continued funding levels but the hiring of at least one additional staff person is requested.

Sincerely,

President

March 8, 1991

Mr. Fred Hansen, Director
Department of Environmental Quality
811 SW Sixth Ave.
Portland, OR. 97204-1390

Dear Mr. Hansen:

The Overlook Community Association urges funding support for DEQ's noise control program.

The quality of our neighborhood is at risk.

We hope that you will give every consideration in maintaining this vital program. It is essential that neighbors have a program such as this to present their concerns.

Sincerely,

Skip Price, OCA Chair

cc: Terry L. Obteshka
DEQ Noise Control Mgr.
file.

Sent to: Huston, Springer, Cease, J. Charles, J. Gillaspie, P. Ravella, S. Munro & K. Hutchison 2/22/91

send J, A & Q

3-1-91

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

MEMORANDUM

DATE: February 22, 1991

TO:

FROM: Julie Schmitt, Director's Office

SUBJECT: Staff reports for 3/11/91 EQC Work Session and Regular Meeting

Enclosed are the following:

- Agenda
- Regular Meeting Items: B, C, D, E, F, G, H, I, K
- Work Session Items: P

The remaining three reports (A, J and Q) will be forwarded to you upon availability.

Items L, M, N and O are oral presentations and will have no pre-meeting written material.

/js
EQC.Reports

2/28/91

TO: Environmental Quality Commission

FROM: Julie Schmitt

RE: Enclosed Materials

Enclosed for your information/review are the following:

- o Pope & Talbot/NCAP Petition for Review
- o All seven reports to the legislature
- o Agenda items A and Q for the March 11, 1991 EQC meeting



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



Sent to EQC 2/22
Sent A+Q via regular
mail 3-1

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: February 22, 1991

TO: Environmental Quality Commission

FROM: Julie Schmitt

SUBJECT: Staff reports for 3/11/91 EQC Work Session and Regular Meeting

Enclosed are the following:

- Agenda
- Regular Meeting Items: B, C, D, E, F, G, G supplemental, H, I, K, J
- Work Session Items: P
- Amended answer to OEC civil suit

The remaining ^{two} ~~three~~ reports (A, X and Q) will be forwarded to you upon availability.

Item O is an oral presentation, and will have no pre-meeting written material.

/js
EQC.Reports

COMPREHENSIVE AIR EMISSION FEE

Department of Environmental Quality

House Bill 2175

THE NEED

Air pollution continues to be a problem in many areas of Oregon—a threat to public health and the environment which will increase with anticipated population and economic growth. Further tightening of the existing traditional regulatory controls will be difficult, especially for significant non-industrial sources of air pollution such as woodstoves and motor vehicles. New and innovative approaches to reducing air pollution are needed to augment current regulatory controls.

THE PROPOSAL

House Bill 2175 addresses Oregon's present and future air quality problems through a non-regulatory, market-based incentive program. It would establish a comprehensive air pollution emission fee on contaminants from industry, residential wood heating, motor vehicles, forest slash burning and agricultural field burning. Revenue from the fees would be used to develop and lower the cost of less-polluting alternatives.

This comprehensive Emission Fee Program has the potential to reduce air pollution statewide by up to 40 percent within 5-10 years. At the same time, it would conserve energy and encourage orderly growth and development.

THE HIGHLIGHTS

The Emission Fee Program authorizes application of a \$25 per ton fee for air pollution from industry. The federal Clean Air Act of 1990 requires states to implement such a fee on industrial emissions. HB 2175 extends the fee concept to emissions from all other major sources of air pollution in Oregon.

HB 2175 does not specify the amount of the fee to be applied to each source. It requires the Environmental Quality Commission to develop fee schedules based on the amount of emissions produced and the potential environmental impact involved.

Both emission fees and revenues from those fees provide an incentive to reduce air pollution. Emission fees make the polluting activities more expensive, while fee revenues will be used to make alternative, less-polluting activities more available and affordable. People can decide for themselves whether to pay the fees or switch to less-polluting activities.

The table (see other side) shows the major sources of air pollution in Oregon and the percentage of statewide emissions each source produces. The approximate fees shown and projected revenue are based on average emission rates.

Source Category	% of Statewide Emissions*	Approx. Fee (\$25/ton basis)	Total Annual Revenue
Motor Vehicles	36.1%	\$ 3 per vehicle yearly**	\$7.8 million
Forest Slash Burning	18.0%	\$16 per acre burned	\$3.6 "
Woodstoves	11.6%	\$ 3 per cord sold	\$3.3 "
Industry	5.7%	\$25 per ton emitted	\$2.7 "
Field Burning	2.4%	\$ 4 per acre burned	\$0.9 "

*The remaining 26.2% of emissions are from a wide variety of smaller sources (for example, windblown dust), for which emission fees cannot be readily collected.

**The fee on motor-vehicle emissions would be statewide. A supplemental fee is proposed for areas which violate ozone pollution standards (Portland only, at the present time). The supplemental fee is needed to change driving habits and fund needed transit programs in major urban areas.

Eighty percent of the fees collected from a source category would be dedicated to funding air quality improvement programs for that category. The remaining fees would be pooled to fund the highest priority projects.

Examples of projects that may be funded include improvements in mass transit, development of alternative fuel supplies and vehicle conversions, subsidies of power-plant construction and operation to burn forest slash and grass-straw residue, subsidies for weatherization and upgrading of traditional residential wood-heating systems, and financial assistance to local governments to operate wood-heating emissions reduction programs.

Air quality improvement projects would be selected for funding by the Environmental Quality Commission based on recommendations from an advisory board composed of inter-agency representatives and the general public.

The Emission Fee Program would be evaluated every two years by DEQ on its effectiveness in reducing emissions and by the Executive Department on its overall effectiveness in meeting program objectives.

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ASBESTOS INSPECTION

Department of Environmental Quality

Senate Bill 185

THE NEED

Asbestos is a hazardous air pollutant and a known cancer-causing substance in humans. It was widely used as a construction material and is found in various forms in most buildings completed before the mid-1970s. There is risk of exposure to dangerous asbestos fibers when buildings are renovated or demolished without proper handling of asbestos-containing materials.

Renovation and demolition projects in public-access buildings are all too often carried out without prior inspection to determine whether asbestos-containing materials are involved. To prevent asbestos exposure to workers and the general public, building owners and managers need to determine whether buildings to be renovated or demolished contain asbestos **before** they contract for the work.

THE CURRENT SITUATION

For the past 2-1/2 years, the Department of Environmental Quality has administered an asbestos control program that includes licensing and certification rules for asbestos workers and contractors, as well as work practice standards for asbestos abatement projects.

DEQ's existing statutory authority does not extend to building owners or managers who may be inadequately informed about asbestos-containing building materials and their legal obligations when those materials may be involved in renovation or demolition work.

THE PROPOSAL

Senate Bill 185 requires asbestos inspections of public-access buildings prior to construction or other activities which could disturb asbestos-containing materials. The bill also requires an inspection before demolition of **any** facility. Inspections must be conducted by a DEQ-licensed asbestos building inspector. This will ensure that building owners and operators are aware of any asbestos in their buildings and that the required asbestos work practices are carried out during renovation or demolition.

Other highlights of SB 185:

- Authorizes DEQ to issue asbestos inspector license and to establish a fee for that license. The licensed asbestos inspector must successfully complete a DEQ-accredited training course.
- Authorizes the Environmental Quality Commission to establish by rule, training and certification requirements for the asbestos inspector license.
- Authorizes DEQ to establish accreditation requirements for asbestos building inspector training courses.

BRAIN TEASER - FREE LUNCH

Solve the following "brain teaser" and get a free lunch on Career Enhancement Day, Wednesday, July 29 from 8:00 AM - 4:00 PM in the Center Street Operator Report Room.

Examine each of the following and identify what each acronym, phrase or abbreviation shows.

1. 26 = L of the A ****Sample**** 26 = Letters of the Alphabet.
2. 7 = W of the A W Words of the Ancient World
3. 1,001 = A N Annals of the World
4. 12 = S of the Z _____
5. 54 = C in a D (with the J's) _____
6. 9 = P in the S S _____
7. 88 = P K _____
8. 13 = S on the A F _____
9. 32 = D F at which W F _____
10. 18 = H on a G C _____
11. 90 = D in a R A _____
12. 200 = D for P G in M _____
13. 8 = S on a S S _____
14. 3 = B M (SHTR) _____
15. 4 = Q in a G quarts in a gallon
16. 24 = H in a D hours in a day
17. 1 = W on a U _____
18. 5 = D in a Z C _____
19. 57 = H V _____
20. 11 = P on a F T _____
21. 1,000 = W that a P is W words that a photograph is worth
22. 29 = D in F in a L Y _____
23. 64 = S on a C _____
24. 40 = D and N of the G F _____

3/1

A, E, K, Q

Les Ruark

Star Route

Box 58

Arlington, OR

97812

Sent 3-1

Reg. EQC Agenda Items

Harry Demaray
576 Welcome ~~St~~ way SE
Salem 97302

A
B
C
F
J
K
L
P
Q

3-1-91

Director

DEPARTMENT OF ENVIRONMENTAL QUALITY



3/6/91

K, L, N

Wendy Haino

5244 SE Melwankie
Ave

Portland, OR

97202

sent 3/7

2/27

E, F, K

Boyle & Dates

Jim Brown

222 SW Columbia

Ste 1400

Portland

97201

2/26/91

D, E, F, J

James Kencaid
1700 Parkwest
12115 W. 5th
Portland, 97204

2-26

K, (Q) received
@ TEX
3/5

Theresa ~~Par~~ Parrone
Jek

POB 500 MS 40-000
Beaverton

97077

627-
2656

Sent
2-26

MEMO

Director

DEPARTMENT OF ENVIRONMENTAL QUALITY

2/26/91



F, J, K, (O), P, (Q)

NW Pulp
Bellevue, Wash.



2/26/91



Director

DEPARTMENT OF ENVIRONMENTAL QUALITY

D.E.F.K.

Dave Couch
15 Newtown
Medford, OR
97501

Sent 2/26



While You Were Out

To Julie

Date 2/28 Time 2:10

Brett Fisher called

of ENCAP

Phone 344-5044

- Telephoned
- In person
- Please call
- Wants to see you
- Will call again
- Returned your call

Message Pls. send Item A
last mos. min. to:

Brett Fisher

ENCAP

PO Box 1393

Taken by Eugene, OR 97440

D.

2/28

A, C, E, F, K, P, Q

Merrie Dinteman

~~CRAPA~~

225 N 5th St

Ste 501

Springfield

67477

A

Andrea Thumber
Miller Nash Library
111 S.W. Fifth Ave
Ste. 3500
PO
97204

243.
2020

2/26

J, K, (Q) — received
3/6

Karl Amuta

721 SW oak

pd

97215

All sent (but for Q,
above) 2/25/91

pd

2/25

E, F

David Adler

Ofc. of Gen. Counsel
Bonneville Power Admin
POB 3621

PD ~~97219~~ 97208

2/25

K, O

Dave Dezenhardt

DoF

2600 State St.

Salem

97310

MEMO

Director

DEPARTMENT OF ENVIRONMENTAL QUALITY



2/25

F

Doug Marshall
Co. Sanitarian
201 Laurel Ave.
Tillamook, OR
97141

2/25

D, J, K

Andy Caron

NCASI

P.O. B 458

Cowallis, OR

97339

2/25

E, F

Bill Hartford

Squier Assoc.

POB 1317

LO

97035

2-26

(A) C, K

Dr. Robt. Palzer
789 Indiana St.
Ashland, OR
97520

(out
2/27)