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OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 06/01/1992

DEQ

State of Oregon
Department of Environmental Quality

REVISED **State of Oregon** *REVISED*

ENVIRONMENTAL QUALITY COMMISSION

A G E N D A

REGULAR MEETING - June 1, 1992

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

Note: Because of the uncertain length of time needed for each agenda item, the Commission may deal with any item at any time in the meeting. Times noted on the agenda are approximate. An effort will be made to consider items with a designated time as close to that time as possible. However, scheduled times may be modified if agreeable with participants. Anyone wishing to be heard or listen to the discussion on any item should arrive at the beginning of the meeting to avoid missing the item of interest.

8:30 a.m **A.** Approval of Minutes

B. Approval of Tax Credit Applications

Rule Adoptions

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

C. Proposed Adoption of Risk-Based Soil Cleanup Standards

D. Proposed Adoption of UST Cleanup Rule Revisions for Groundwater Cleanup Standards and Procedures

E. Proposed Adoption of Amendments to Hazardous Waste Permit Fees, aquatic toxicity, CFC Rules

F. Proposed Adoption of Underground Storage Tank Financial Assistance Rules

G. Proposed Adoption of Rules to Increase Fees for Municipal Waste Discharge Permits

H. Proposed Adoption of Minor Changes in Wastewater Permit Fee Schedule for General Permits

Action Items

I. Request for a wet weather season Mass Load Increase for the City of Newberg

J. Bond Issuance Resolution for Mid-Multnomah County Sewers (City of Gresham)

11:30 a.m. **K. 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.

L. Commission Member Reports (Oral)

M. Director's Report (Oral)

12:15 p.m. **Lunch Break**

Information Items

N. Information Report on Proposed Parking for the 600 Holiday Building

~~O. Work Session - Discussion of Draft Water Quality Status Report [305(b) Report]~~

The Commission has reserved July 23-24, 1992, for the next Commission meeting. The location has not been determined at this time.

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.

May 22, 1992

Approved	✓
Approved with Corrections	

Minutes are not final until approved by the EQC

ENVIRONMENTAL QUALITY COMMISSION

Minutes of the Special Meeting
February 18, 1992

A special meeting of the Environmental Quality Commission was held on Tuesday, February 18, 1992, at the Old Armory, Miller B Room, 104 Fourth Street, Albany, Oregon. The purpose of the special meeting was to discuss:

- The James River Recycle Facility: Approval of Proposed Waste Load Allocation.
- The Pollution Control Tax Credit Program:
    1. General Discussion of Criteria for Tax Credit Eligibility; and
    2. Consideration of Chemical Waste Systems Application.

Commission members present were:

William Wessinger, Chair
Dr. Emery Castle, Vice Chair
Henry Lorenzen, Commissioner
Anne W. Squier, Commissioner
Carol Whipple, Commissioner

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

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

Chair Wessinger called the meeting to order at about 9:45 a.m.

A. James River Recycle Facility: Approval of Proposed Waste Load Allocation.

James River applied to the Department for a permit to discharge highly treated wastewater to the Willamette River from a new facility. This facility will receive waste paper, process the paper to remove ink and other contaminants and use the paper as a source of pulp for the production of new paper. The proposed facility is referred to as the Halsey Secondary Fiber De-Inking Mill (Recycle Facility).

Before the permit could be issued, rules adopted by the Commission require that the Commission approve the allocation of currently unused wasteload assimilative capacity of the river for the proposed new source (Oregon Administrative Rules 340-41-026).

The Department evaluated the application and potential water quality effects. The Department concluded that the proposed discharge would not cause water quality standards to be exceeded and recommended to the Commission that the new discharge to the Willamette River be authorized. The Department drafted a proposed permit and held three public hearings.

Chair Wessinger indicated that the Commission had received and read a great deal of information about this issue. He said he understood that many people wanted to speak to the Commission at this meeting but that public hearings had been held and those hearings were the appropriate place for testimony. Chair Wessinger said the purpose of this meeting was to review the public comments, ask questions and deliberate. To accommodate those who wished to speak and to provide time to deliberate, he asked that a spokesperson be designated who would represent the viewpoint of each of the following groups: 1) James River; 2) environmental groups; 3) City of Corvallis; and 4) Association of Clean Water Agencies (ACWA).

Chair Wessinger introduced Senator Mae Yih, and Representatives Carolyn Oakley and Liz VanLeeuwen. The legislators all stated they would like to be on record as supporting the James River Corporation for this plant and urged the Commission's approval.

Director Hansen outlined that the Department would provide the Commission with 1) an overview consisting of the framework of the standards; 2) a summary of the items raised where most of the focus of controversy and disagreement occurred; 3) a walk through of the analysis of the Department's recommendation; and 4) a respondence to questions. **Lydia Taylor**, Administrator, Water Quality Division, **Jerry Turnbaugh**, Water Quality Division, and **Stephanie Hallock**, Administrator, Hazardous and Solid Waste Division, were available to address these issues.

Ms. Taylor said that she would discuss with the Commission the following topics: the function of new facility, the Department's concern and review of the potential effects for the discharge on dissolved oxygen in the river, the Department's concern about the secondary release of dioxin from materials used in the recycling process, sludge and solid waste, technologies being required and the Department's conclusions that those technologies are the highest and best practicable technologies.

She indicated the Department could hold the James River Corporation and Pope & Talbot Corporation individually responsible for their own discharges even though ultimately the discharge joins together and proceeds out a pipe into a diffuser to the Willamette River. Ms. Taylor said that testing is required of both effluents before they are joined, and both corporations will be responsible for their own discharges. Additionally, she said that during the application process, the Department observed that James River had begun construction of the facility without obtaining the required permit. The Department did notify James River through a notice of possible violation that they were not to begin construction of facilities without a permit or permission from the Department and notified them that any facility constructed was at their own risk. The Department did not guarantee the Commission would make a determination favorable to the corporation.

Ms. Taylor stated that the Department's analysis indicated the proposed discharge would not measurably affect the dissolved oxygen resources of the Willamette River. She also noted that since the Willamette River is designated as Water Quality Limited for Dioxin (TCDD), the Department proposed to include a discharge limitation for TCDD of zero in any permit issued. She stated that the wastewater treatment technology proposed by James River was consistent with the Department's interpretation of the requirements for highest and best practicable control technology. The facilities would achieve a 95 to 97 percent removal efficiency for organic matter, compared to a requirement of about 95 percent removal for new or modified municipal treatment facilities. She added that another question was if the Commission allowed the discharge, would this decision mean that others using the river would face higher sewer rates. The Department's evaluation of this proposed discharge was that it would have no measurable effect on the quality of the water in the Willamette River, and the Department did not believe the discharge would cause sewer rates to increase.

Ms. Hallock advised that although costs associated with landfilling solid waste are expected to go up in order to pay for new federally mandated requirements; however, landfilling sludge from the proposed recycle plant would not create increased costs. She noted that sludge would use capacity in the landfill, and the landfill had the capacity to take the sludge.

Director Hansen noted that the question before the Commission is whether or not to allocate a portion of the unused wasteload assimilative capacity of the Willamette River to James River. If the Commission approves a load allocation, the Department would proceed to issue a permit consistent with the approved load allocation and the rules and standards adopted by the Commission.

Charles Vars, Mayor of Corvallis, read his statement to the Commission. The statement has been made a part of this record. Mayor Vars said the city did not oppose the granting of a permit for James River but requested that three actions be taken: 1) place limitations in the permit to protect those who use the river as a water supply; 2) include in the permit that facilities that discharge treated wastewater into the river will not be subject to more stringent future limitations; and 3) require in the permit a sludge management plan.

The Association of Clean Water Agencies (ACWA) presented comments. **Terry Smith**, chair of ACWA, told the Commission the association's goal was to request issuance of the permit with discharge limits modified to allow a discharge of 2,000 pounds of Biochemical Oxygen Demand (BOD) per day to start with and to allow four years to achieve a reduced the allowable limit to 1,000 pounds per day. He stated that the applicable federal requirements for municipal discharges allowed an effluent BOD concentration of 30 milligrams per liter (mg/l), and that Oregon requires treatment to achieve 10 mg/l or one third the allowable federal limit; therefore, to achieve equitable treatment for cities and industries, the allowable limit for James River should be one third of the 3,000 pounds per day that would be allowed under federal guidelines.

To represent the environmental groups, the following spoke:

Pat Benner, who had been a participant in the Coquille Advisory Committee, said that this committee approached the problem as a water quality limited problem. She suggested that an anti-degradation approach be used and a lower BOD limit be established to avoid having to deal with a Total Maximum Daily Load (TMDL) process. **Liz Frenkel** pointed out there was only one water right for the site and that was issued to Pope & Talbot. She concluded that because of this, and because there is only one outfall to the river, the James River facility could not be considered a new source. **Wayne Hunter** said he was concerned about the future users of the river. **Keith Warner**, representing Northwest Environmental Advocates, talked about the dioxin and noted that the Willamette River was water quality limited for dioxin. Mr. Warren said he believed the public was denied a choice on this permit, and that James River had knowingly begun building before they had received permission from the Department. He said the facility should treat their effluent with tertiary treatment. **Karl Huber**, representing the Corvallis Chapter of the Sierra Club, said the

Department allowed the facility to proceed at their own risk and then rewarded the company by proposing the issuance of a permit. He asked where the antidegradation policy was and indicated the Department did not require the policy because James River had already begun construction. Mr. Huber said the Department changed the standards and rewarded the facility for violating the law. He stated that consideration of alternatives had been inadequate. He urged the Commission to say no to the load allocation and leave James River to work out a settlement with Pope & Talbot.

Jeff Manchester presented comments on behalf of James River. He briefly remarked that James River would ensure that the new Halsey recycling facility will meet or exceed state and federal waste quality requirements. He said the plant will recycle process water which will result in minimizing the quantity of effluent to be treated; water use will be less than one third of the industry average for similar types of plants. The waste paper will be color stripped and the pulp brightened using a non-chlorine sequence consisting of hydrogen peroxide and sodium hydro sulfite. The company said this sequence is not as effective on some color grades of paper as the more widely used hypo-chlorite based sequence and is more expensive from a capital and operating standpoint but produces no dioxin which is consistent with the DEQ determinations that the river is water quality limited. BOD removal efficiency will be 97 percent during the summer months which exceeds current requirements for all other Willamette River industrial dischargers.

James River representatives said the Department has determined from data collected that the proposed discharge will cause no measurable decrease in down stream dissolved dioxin levels and that the discharge will comply with all Willamette River water quality standards which protect the beneficial uses of the river. James River representatives concluded by stating that the facility will provide the market necessary to implement the state recycling goals. The Halsey plant's capabilities to recycle the most difficult office grade wastes will complement existing newsprint and corrugated box facilities in Oregon so that the state will be able to recycle all the major waste paper streams. James River provided the Commission with a list of the supporters for the plant.

Gordon Swanson, United Paperworkers International Union, supplied copies of his written statement which has been made a part of the meeting record. Mr. Swanson briefly summarized this statement. He said the union supported the James River request for a new waste load allocation for the Willamette River so that the company can begin operating its new recycling facility. Mr. Swanson said that customers were requesting products made from recycled fiber, and the new Halsey recycling plant would be able to supply recycled fiber for James River mills in Wauna and Camas, Washington. He said the new Halsey facility would create new family wage jobs and would help to preserve more existing jobs in Oregon and Washington mills because

the new facility would reduce the mill's dependence on purchased market pulp. The new plant also would support hundreds of local recyclers, haulers and other businesses and industries that serve the recycling industries. Additionally, plant construction would employ local citizens directly and indirectly through the purchase of building materials and equipment from the local area.

Tom Donaca, Associated Oregon Industries (AOI), said that the AOI supported the proposed James River waste paper recycling mill at Halsey. He said the permit should be issued without modification other than what was recommended by the Department staff as a result of the public hearings. He said AOI is very sympathetic to the concerns raised by the ACWA and that AOI also represented a large number of members served by municipal sewage treatment plants. Those members have expressed concern about the potential cost imposed if, as expressed by ACWA, municipal sewage treatment plants would in the future have to exist within current permit limits.

Mr. Donaca said that the closure of two pulp and paper mills on the Willamette has resulted in BOD reductions. In addition, the ammonia discharge reductions in the Albany area and elimination of pulping at an Oregon City pulp and paper mill have resulted in further BOD reductions. Additionally, closures of some food processing plants in the Willamette Valley and land application in the food processing waste water at other food processing plants have significantly reduced the summer load from these sources on the Willamette River. He said that municipal plants have been the primary beneficiary of this change.

He said the staff report on the James River Halsey permit public hearing indicated that increased loadings were granted to several municipalities in recent years and suggests that similar increases could be granted in the future. Mr. Donaca said that AOI believes there is a current forum for addressing this issue, the on going Willamette River Study. AOI urged the Commission to authorize the James River Halsey recycling facility permit which would remove currently unrecyclable waste paper from Oregon landfills, meet DEQ's current no observable effects criteria and protect the beneficial uses of the river.

Commissioner Lorenzen asked the company to respond about plant construction prior to permit issuance. Jeff Manchester said that when construction of the facility had started, they were operating under the auspices of site permits held by Pope & Talbot. Due to customer pressure, James River accelerated construction and then concluded the shared permit was unworkable; that operation as two separate ownerships was needed. As a result, the company sought legal advice and applied for their own permit. James River started the permit process in the first quarter of 1991 anticipating the process would take about a half a year.

Commissioner Squier asked that under the existing Pope & Talbot permit that was in place when construction started, would the company have been able to operate this facility without permit modification. Mr. Manchester replied no and that the shared permit created an unworkable situation because of other issues relating to the combined effluent, accountabilities, responsibilities and planning abilities.

Commissioner Castle said that in his experience it would be very unusual for industry to proceed with that kind of investment unless they had the assurance or had some confidence that the process would be successful; that it seemed unusual that the company would embark on this investment if approval had not been granted. A James River stated they recognized they were taking a risk.

Mark Kackley, Jefferson, told the Commission about his experiences on the Willamette River. He said that he empathized with those needing the jobs the facility would provide but expressed concern about the quality of the river for future generations. Mr. Kackley also said he was concerned about what effect the increased discharge would have on fish.

Jeanne Riha expressed concern regarding infrequent monitoring and potential heavy metals effects on fish. She stated there was a need for an independent evaluation of this issue.

Testimony was concluded, and the meeting was recessed for lunch.

Director Hansen commented about the presentations made to the Commission in an effort to frame the issues. He said that although many comments had been made about the jobs the facility would bring, these comments should not be a consideration in the decision the Commission must make. Additionally, he said the issue of whether the facility was constructed before the permit was granted should not be a consideration in determining the merits of the proposed permit. Director Hansen said the Department outlined very clearly to James River that continuing the construction would be at their own risk.

Director Hansen told the Commission they needed to consider three issues: 1) will water quality standards be met; 2) is James River a separate source; and 3) is highest and best treatment being required and is there equity between municipal and industrial requirements.

Chair Wessinger said it appeared there were three direct proposals for changes to the permit by the City of Corvallis and one change by ACWA. He asked staff to respond to those proposed changes. Commissioner Lorenzen asked for clarification of the role of the Commission's role in the matter. Director Hansen said the question before the

Commission was whether or not to approve the requested and recommended wasteload allocation; then, the Department would, assuming the increase was granted, draft the specific permit requirements which would meet not only the conditions imposed by the Commission but also the other requirements necessary to meet water quality standards and other rules adopted by the Commission.

Jerry Turnbaugh, Water Quality Division, spoke to the Commission about preparing the permit and setting BOD limits. He considered four points in determining the permit limits: first was what the U. S. Environmental Protection Agency (EPA) required in the new source performance standards for deinking mills; second was data from other deinking mills similar to the James River facility; third was the efficiency of BOD removal that the Department considered to be attainable by highest and best treatment technology; and fourth was the impact on dissolved oxygen in the river. Based on these four, the Department determined that a discharge limit of 2,000 pounds of BOD per day during the summer would be compatible with all four criteria.

Commission Squier asked Mr. Turnbaugh to clarify some points. In regard to his second point about other deinking plants, she asked if the comparison he was making was based on output per unit of product or output based on calculation of concentrations. Mr. Turnbaugh replied he compared the mass load of BOD discharge per ton of pulp produced, not the concentration. He said concentration varied with the process and amount of water used. Chair Wessinger asked staff if the Department would reject the proposal to change the BOD limit to 1,000 pounds; Ms. Taylor said that was correct.

Director Hansen said in regard to the sludge management plan it made sense to formalize the plan by James River. Ms. Taylor replied that the letter submitted by James River could be included in the National Pollution Discharge Elimination System (NPDES) permit. She said information in that letter would need to be analyzed and a specific recommendation made. She added the City of Corvallis had also suggested that wording be added which would limit discharges if the Willamette River was later determined to be water quality limited. Ms. Taylor said she did not believe that type of wording should be included in the permit since it assumes the Department can identify the problem and source.

Commissioner Castle asked if staff would follow up on the comparison of industry and municipalities specifically in regard to the efficiency of removal. Commissioner Castle said he did not believe the Commission should consider efficiency of removal when the final product was different among the sources. He noted that Mr. Turnbaugh indicated there was no reason to require additional treatment and wondered about the reason for requiring municipalities to provide

additional treatment. Ms. Taylor replied that different issues and operations need to be considered. She said when a municipality installs a treatment facility, it is anticipated that sewage treatment facility use will increase over time because of population growth; that the allocation assimilative capacity is based upon the treatment capacity of the facility at full capacity. An industrial facility, depending on the economic climate, would be designed and built for a production capacity at a specific moment in time. Additionally, she added, an industry, at least in theory, can control through its production process the amount of pollutant contained in the effluent. Ms. Taylor said the closest way of making a comparison about equity on level of technology is the efficiency of pollutant removal. Commissioner Lorenzen said that if the focus was on effluent concentration, there would be numerous ways to use more water and provide justification for the increase in discharge and water use.

Director Hansen replied that the fundamental issue facing the Commission is how to allocate unused assimilative capacity. In answer to Commissioner Castle's question about available technology, Ms. Taylor said that technology required of dischargers on water quality limited streams must ensure water quality standards are met. Commissioner Castle asked what additional technology would be required to lower the discharge to approximately 1,020 pounds per day. Mr. Turnbaugh responded that artificial wetlands could provide additional reduction. Commissioner Squier asked for clarification of Mr. Turnbaugh's statement that the proposed discharge when compared with data from other deinking facilities was neither the best nor worst. Mr. Turnbaugh replied that the data on nine deinking mills were presented in pounds of BOD per ton of pulp produced. The James River proposal fits in the middle of the range; each mill is different in terms of product produced, process used and resulting waste generated.

Commissioner Whipple asked staff to respond to comments that the anti-degradation policy was inadequately addressed. Ms. Taylor replied that the Department analyzed very carefully, particularly with regard to dissolved oxygen, whether there would be degradation in the Willamette River. She said the Department was meeting the anti-degradation policy and rule of the Commission in recommending this discharge. Ms. Taylor said some legal questions were raised regarding the federal new source regulations, and the Department did check with legal council when the document was developed.

Chair Wessinger said the written material and presentations received seemed sufficient for the Commission to come a decision and noted his sense of the discussion that a permit should be approved but with changes in it.

Commissioner Lorenzen said he did not think it was the Commission's role to get into the details of the permit. He said that what was before the Commission was whether to approve the waste load allocation, and the Department should determine the terms of the permit. Chair Wessinger replied that his only other consideration was whether to give direction beyond an approval or disapproval.

Commissioner Castle asked if it would be permissible for the Commission to approve the allocation of assimilative capacity but indicate that certain conditions must be met under which the assimilative capacity can be used. Director Hansen said the staff report indicated the findings the Commission needed to make in granting the unused assimilative capacity. He said the Commission has to be satisfied with the findings as meeting the needs.

Commission Squier said the staff report focused on whether, in the words of the rule, the proposal would lower water quality since the real question to the Commission is how much of the remaining assimilative capacity of the river should be allocated to this project. Director Hansen replied that the Commission had two sets of decisions: that water quality standards must be met; if water standards are not met, no other water quality issues are addressed. Further, once having found that every water quality standard is met, the Commission may still decide as a separate issue to either grant or not grant the unused assimilative capacity because it had not met another part of the rule. Commissioner Squier said that her point was that the threshold of the river was passed but expressed concerned about concluding the numbers were correct in regard to allocation.

Commissioner Castle cited a section of Oregon Revised Statutes (ORS) 340-41 about the assimilative capacity of Oregon streams and beneficial uses that promise the greatest return relative to the unused assimilative capacity that might be used. He said that instream uses that will benefit from reserved assimilative capacity as well as potential future beneficial use will be weighed against economic benefit associated with the increased loading. Commissioner Castle said he wanted to call attention to the fact that if the Commission granted this increase, the best treatment technology would be required to meet the water quality standards. Ms. Taylor said if the Commission concluded that additional tertiary treatment should be imposed and analyzed, the Department could add those terms in the permit.

Commissioner Lorenzen asked if tests would be performed in the future as additional demands are placed upon the river. Ms. Taylor said the Department can ask the facility, if there is reason during the permit cycle, to increase their technological application. She said that typically unless a facility makes a major modification or the Department has reason to believe that technology is going to be applied equally to all industries of that type, and unless a TDML stream is involved, the Department would

not ask the facility for more. Ms. Taylor added that if a new technology could reasonably be placed on an industry, the Department could modify permits to impose new technology on all those industries. Director Hansen said a problem resulting from this issue was illustrated in a rule on page 3 of the staff report. He said the rule indicated that any growth can be accommodated by increased efficiency and effectiveness of waste treatment for existing sources; that is, increased production for industrial sources and increased hookups for municipal sources shall result in no additional loadings. Higher levels of treatment can be achieved without the imposition of a new technology requirement because of the effect of this rule.

Commissioner Castle referred to the Department's recommendations on the first page of Agenda Item A and asked staff for comment on language that would add to the recommendation a requirement of "consistent with the best practical technology in industry generally" so that the motion emphasized the focus of discussion. Commissioner Castle summarized that what would be recommended is that the Commission would adopt the findings contained in Attachment A and approve a new discharge to the Willamette River near Halsey with the monthly average BOD not to exceed 2,000 pounds per day during the summer months and 3,120 pounds per day during the winter months consistent with the best practical technology in the industry generally. He said he was concerned that Oregon should be on the leading edge of the industry performance when a new industry is permitted and that this would provide a lever that could be used on existing facilities. Ms. Taylor noted that in addition to addressing numerical limits, the staff would then evaluate the treatment being employed within the specific kind of industry. If the Department found practicable treatment being used elsewhere and found it was available and could be implemented at this plant, that treatment would be required; that 2,000 pounds per day of BOD in the summer would be permitted but with the understanding the Department would look at that technology again to determine if additional treatment could be applied without regard to the numeric approval.

Mr. Knudsen suggested the Commission clarify what is meant about how often the Department would require the permittee to change their treatment and that any motion would clarify that the facility would have reasonable time to accomplish a new requirement.

Commissioner Squier said she believed there are existing plants that are operating considerably better than the James River plant would do in terms of removal and mass per unit produced. She said she liked ACWA's proposal because it sounded as though the 1,000 pounds limit was in line in what would be achieved with an additional serial, secondary treatment. Commissioner Squier she would rather be careful in allocating the assimilative capacity first.

Commissioner Lorenzen stated he would have trouble, based on information before the Commission, in reaching a conclusion that it would be appropriate to lower the discharge limit to 1,000 pounds per day.

Mr. Turnbaugh commented further on the data from the deink mill study. He noted that two other mills were producing 4.1 and 4.2 pounds of BOD per ton of pulp while the James River permit was based on 5.7 pounds of BOD per ton of pulp produced. The mill producing the least amount was at 2.8 pounds per ton. He said the mills in the study are using either an activated sludge plant or are using an aerated basin which is a lined pond with aerators consuming the BOD. He concluded by saying the James River proposal does have a state of the art activated sludge treatment plant. He further noted that the mill producing 2.8 pounds of BOD per ton may be producing that amount because of product mix and not because of waste water treatment facility efficiency of removal.

Commissioner Whipple noted the concerns expressed by the City of Corvallis. She also indicated that she was supportive of the staff recommendation and that the Department's water quality staff were knowledgeable about the proposed permit. Commissioner Whipple **moved** that the allocation be approved as proposed; Commissioner Lorenzen seconded the motion. Commissioner Squier suggested a proposed amendment. She asked if Commissioners Whipple and Lorenzen would be amenable to an amendment approving the staff recommendation for the period of tine through December 31, 1993, with a presumption that within four years the BOD limit in the summer months would be reduced to 1,000 pounds or 1,020; and at the end of 1993, there would be an opportunity to reexamine whether it is necessary to reduce the amount.

Commissioner Whipple said she was willing to address Commission Squier's concern in some way but was not sure what the correct time should be. Commissioner Squier said she was combining two issues: ACWA's suggestion for a reduction within four years and to include the 1993 date for reexamination if James River thought that should not occur. She said the reason she choose that date was because she was presuming the Willamette River study would be finished by that time, and the Department would have a better idea of the assimilative capacity. The Department indicated the Willamette study was scheduled to be completed in June 1993.

Commissioner Lorenzen stated he was concerned about the concept. He did not object to reviewing the technology to see if something better was available but if that was done, it should be done for all sources not just a new one. Commissioner Castle indicated he would prefer an alternative approach of automatically reducing the allowable discharge in four years.

Chair Wessinger asked for clarification of the proposed amendment to the motion. Commissioner Squier clarified her proposal to adopt the ACWA proposal to reduce the allocation within four years to 1,040 pounds per day during the summer. Commissioner Whipple indicated she was willing to consider a specific timeline for evaluating the matter but questioned whether it should be in this action or in the permit. Commissioner Lorenzen restated his belief that there was insufficient information before the Commission to determine whether 1,000 pounds is a realistic goal. Chair Wessinger indicated he would like to know that people are trying to achieve a lower goal but was not sure what that lower goal should be.

Director Hansen stated that the Commission seemed to agree that 2,000 pounds were acceptable to start with but the number should be lower; the question was where to place the burden and how to put the burden in place to achieve a lower number.

Commissioner Squier restated her position that although we are willing to allocate a piece of assimilative capacity today, that it is too big a chunk to allocate permanently, and at a certain point, it is going to go down. She posed the option of approving the allocation of assimilative capacity for a period of four years. This would allow time to finish studies and evaluate future needs. Mr. Knudsen indicated he had not looked at the issue and was not sure about legal implications. Commissioner Lorenzen indicated he did not think it was a good idea because of implications for other sources and upon investment decisions. Chair Wessinger said that did not bother him in this case because the plant was already constructed. Other Commissioners agreed. Commissioner Castle said the four-year proposal would meet his concerns and was appropriate in this specific case. Commissioner Whipple indicated she could accept a four-year allocation.

Chair Wessinger asked if Commissioner Whipple would accept that language as an amendment to her motion. Commissioner Whipple indicated yes. The Commission discussed what would happen at the end of four years. They concluded that it would force a review sufficiently before the end of the four years for the Commission to determine whether the existing load allocation should continue or whether a revised load allocation should continue.

Director Hansen summarized the Department's understanding of the current proposal that the Commission wants tertiary treatment, will approve 2,000 pounds now but wants to revisit that amount within four years to review study results and establish a number consistent with tertiary treatment technology being applied. Chair Wessinger and Commissioner Whipple did not agree with the assumption that tertiary treatment would be required. Chair Wessinger indicated he interpreted the discussion to be that there would be approval of 2,000 pounds for a period of four years, and the matter would be revisited before the four years concluded to determine if something less should be required. Commissioner Lorenzen indicated he would not second the amendment to the original motion; Commissioner Whipple then withdrew her original motion.

Commissioner Whipple noted that she saw this situation as different because the plant was constructed without first obtaining the necessary approvals and any action would not be a precedent for other proposals. Commissioner Whipple **moved** that the Commission approve the application for the proposed wasteload allocation for a period of four years and was seconded by Commissioner Castle. The motion was unanimously approved in a roll call vote.

Mr. Knudsen recommended that a written order be prepared. Commissioner Squier **moved** that counsel be directed to prepare a written order for the Chair's signature. The motion was seconded by Commissioner Lorenzen and unanimously approved.

B. Pollution Control Facility Tax Credit Program: 1) General Discussion of Criteria for Tax Credit Eligibility; and 2) Consideration of Chemical Waste Systems Application.

The Commission considered the Chemical Waste System tax credit application (TC 3470) before moving to the general discussion. Director Hansen noted the Attorney General's opinion answered the questions that were previously raised, however, that more questions may be asked. The Commission discussed with staff the itemized tax credit application and costs associated with a landfill liner.

Randy Wheeler, comptroller for Chemical Waste Management, said the company did not include excavation in costs and took all capitalized labor and assigned those costs to the excavation activity. Excavation was completed before liner installation began. All overhead during excavation was assigned to the excavation costs.
Commissioner Lorenzen asked why Chemical Waste was just applying only for the tax credit for the liner and not entire landfill. Mr. Knudsen answered that to qualify as a pollution control facility, the principal purpose of that portion of the facility must be for pollution control. He said excavation did not meet the purpose of pollution control criteria.

Commissioner Lorenzen said he was concerned about reliance on the applicant and applicant's accountant for all cost information. He asked if there was a way to increase assurance levels by conducting an independent cost review. Director Hansen responded that the Department does not have the expertise. The Department believes the independent Certified Public Account certification plus the Department of Revenue's review of information and determination about whether false claims have been made provides some assurance. Commissioner Lorenzen stated his concern was about the different allocating cost methods that are acceptable but lead to different results.

Chair Wessinger noted this was an issue only on the large applications. He suggested the Department should hire a contractor to review costs on any application with a cost over approximately $250,000. Roberta Young, Management Services Division, noted that the tax credit rules were amended in 1989 to charge a higher fee to an applicant if the Department needed to employ a consultant in evaluating an application. The Commission concluded by asking the Department to further explore this issue.

Commissioner Squier stated that **Scott Forrester** requested the Commission to defer the decision on this tax credit application to another meeting and that he wanted to speak to the Commission about this application. Commissioner Squier indicated she asked staff to advise Mr. Forrester that she was not inclined to delay a decision on the issue.

Harry Demaray, Salem, told the Commission that if Chemical Waste did not have the liner, the facility would not receive any income. He, therefore, believed that at the most, only 50 percent of the cost of the liner should be allocable to pollution control. Commissioner Castle asked how Mr. Demaray arrived at the 50 percent figure; Mr. Demaray responded he guesstimated.

Commissioner Squier suggested the Department consider this issue during the development of legislative concepts and particularly whether tax credits should be allowed for meeting federal requirements.

Commissioner Squier reluctantly **moved** that the tax credit be approved for Chemical Waste Management; Commissioner Castle reluctantly seconded the motion. Commissioner Lorenzen said he would vote in favor only because the Commission was constrained by statute language. He also asked the Department to examine this statute in regard to the State's reduced budget. Tax credit application number TC 3470 was approved unanimously.

Director Hansen said the Commission might want to propose legislation to amend the tax credit program. He also noted that gold mining tax credits could be upcoming. He said this tax credit application would be a good example to take to the 1993 legislative session.

Mr. Demaray further stated the principal purpose of tax credit number 3534 for the Boise Cascade Corporation approved at an earlier meeting was not for pollution control. He suggested the staff report was not modified. **Jean Cameron**, Oregon Environmental Council (OEC), stated that the tax credit rules were bad public policy, and the OEC would like to work with the Department to develop a policy for that would replace the current tax credit program.

There was no further business, and the meeting was adjourned.

Approved ✓
Approved with Corrections ____

Minutes are not final until approved by the EQC

ENVIRONMENTAL QUALITY COMMISSION

Minutes of the Two Hundred and Twentieth Meeting
April 23, 1992

Regular Meeting

The Environmental Quality Commission regular meeting was convened at 8:30 a.m. on Thursday, April 23, 1992, in Conference Room 3A, Oregon Department of Environmental Quality (DEQ), 811 S. W. Sixth Avenue in Portland, Oregon. The following commission members were present:

William Wessinger, Chair
Dr. Emery Castle, Vice Chair
Henry Lorenzen, Commissioner
Anne W. Squier, Commissioner
Carol Whipple, Commissioner

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

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

Chair Wessinger called the meeting to order.

A. Approval of the Minutes.

Commissioner Squier **moved** the March 12, 1992, minutes be approved; Commissioner Castle seconded the motion. The March 12, 1992, minutes were unanimously approved.

B. Approval of Tax Credits.

The Department recommended approval of the following tax credit applications.

Application Number	Applicant	Description
TC-3497	Mark & Dean McKay Farms	Grass seed straw storage shed.
TC-3569	Portland General Electric	Oil-water separator and associated drainage piping.
TC-3582	Dinihanian Recycling & Manufacturing	Used single drive tractor; two used Manufacturing trailers for plastic recycling.
TC-3618	Younger Oil Company	UST spill containment barrier and oil/ water separator with fiberglass piping; underground fiberglass piping for above ground tank.
TC-3682	Jeld-Wen, Inc.	Primary filter baghouse.
TC-3688	Berger Brothers	Tiling of 33 acres.
TC-3704	Briggs Farms, Inc.	4 bottom, 18" plow.
TC-3706	Klamath Auto Wreckers	Automobile air conditioner coolant Inc. recycling machine.
TC-3719	Delon Olds Co.	Automobile air conditioner coolant recycling machine.
TC-3720	Delon Olds Co.	Automobile air conditioner coolant recycling machine.
TC-3722	Rex's Garage	Automobile air conditioner coolant recycling machine.
TC-3723	M & G Body and Fender	Automobile air conditioner coolant Service recycling machine.

Application Number	Applicant	Description
TC-3727	City Automotive	Automobile air conditioner coolant recycling machine.
TC-3729	Larry Launder, Inc., dba Mt. Park Chevron	Automobile air conditioner coolant recycling machine.
TC-3733	Artisan Automotive, Inc.	Automobile air conditioner coolant recycling machine.
TC-3734	Seaside Auto Body	Automobile air conditioner coolant recycling machine.
TC-3735	Oregon Rootstock & Tree Co., Inc.	Two fiberglass USTs with leak detection, spill containment basins, overfill alarms and Stage II vapor recovery piping.
TC-3736	Oregon Rootstock & Tree Co., Inc.	Grass seed straw storage shed.
TC-3742	David R. Briggs	John Deere model 2810 plow.
TC-3743	Small World Auto Center, Inc.	Automobile air conditioner coolant recycling machine.
TC-3744	Small World Auto Center, Inc.	Automobile air conditioner coolant recycling machine.
TC-3745	Small World Auto Center, Inc.	Automobile air conditioner coolant recycling machine.

Commissioner Squier noted that TC 3688 involved field tiling and asked if action on this application was deferred at the last meeting pending further discussion. The Department responded that it was. Director Hansen noted that field tiling is one of the alternatives to open field burning referenced in the rules. Larry Knudsen, Assistant Attorney General, indicated the question raised by the Commission at the last meeting was not whether the field tiling was eligible for certification but whether the field tiling increased property value. Jim Britton, representing the Oregon Department of Agriculture, stated two questions were raised: the potential for increased land value, and the potential for an increased value in the alternative crop

where tiling was used on the land. With respect to crop value, he noted that the grower and county extension agent indicated that potential alternative crops would not have significantly different value. Mike Downs, Administrator of the Environmental Cleanup Division, stated the county assessor had verbally advised the Department that installation of field tile would not alter land value.

Commissioner Castle **moved** the tax credit applications be approved as recommended by the Department; Commissioner Whipple seconded the motion. The motion was approved with three yes votes. Chair Wessinger and Commissioner Squier abstained because they did not receive the staff report in time to review the material prior to the meeting.

RULE ADOPTIONS

C. Proposed Adoption of Solid Waste Permit Fee Rules.

The purpose of these rules was to implement increases in solid waste permit fees required by 1991 Senate Bill 66 and by the legislatively approved budget for 1991 through 1993. An additional purpose was to simplify the solid waste permit processing fee schedule. Deanna Mueller-Crispin and Chuck Donaldson, Hazardous and Solid Waste Division, presented this agenda item.

Ms. Mueller-Crispin and Mr. Donaldson provided information about advisory committee representation and involvement, public hearings, additional advisory committee work group review and resulting rule modifications to lower the fees on sites (mostly eastern Oregon solid waste sites). The Commission asked if lessening the fees would encourage many scattered sites. Mr. Donaldson responded that economics and Resource Conservation and Recovery Act (RCRA) provisions discouraged small site development.

Doug Coenen, General Manager for Oregon Waste Systems, told the Commission Oregon Waste Systems had participated in the fee rules process but indicated the Department had not considered all key issues. Mr. Coenen said his company was not opposed to the increased fees and supported the fee structure; however, he said the 21 cents per ton fee was flawed because it was not related to actual operating costs. He said that Oregon Waste Systems would be providing 40 percent of the revenue and subsidizing other landfills. Mr. Coenen indicated his company had suggested a tiered fee schedule which the Department had dismissed. He said a reasonable fee should be approached, that the fee schedule does not conform and is illegal; he urged the Commission to reject the rules and request the Department to develop a more equitable proposal for cost distribution.

Mr. Donaldson responded the Department examined the equity issue and agreed with the advisory committee that the best approach was for every citizen to pay the same rate. He stated that on balance, the proposal was considered to be fair. Commissioner Castle asked about the fee schedule not being in accordance with statute. Robert Danko, Hazardous and Solid Waste Division, said the schedule was not different than the one which has been in place for the past eight years. He continued that the fee was not intended to be a direct fee for service, that the legislature was aware of the basic fee structure and had not directed any changes.

Larry Knudsen, Assistant Attorney General, said the statute could be interpreted as requiring a strict cost of service approach and could also be interpreted otherwise. He noted the Commission has not interpreted it as requiring a strict cost of service approach, that the Commission's interpretation could be defended as equitable, and the legislature has effectively ratified the Commission's interpretation.

Commission Castle **moved** approval of the Department recommendation for adoption of the proposed Solid Waste Permit Fee Rules; Commissioner Lorenzen seconded the motion. The Commission unanimously approved the motion by roll call vote.

Commissioner Squier noted the staff report was very good, and the response to comments and other materials were helpful. She also noted her appreciation for the work of the advisory committee. Chair Wessinger also expressed his appreciation to the advisory committee for their work.

OTHER ITEMS

D. Review of Hearings Officer's Decision in DEQ v. Baida.

Larry Cwik, Environmental Law Specialist with the Enforcement Section, provided a brief summary of this case.

Michael Henderson, attorney for Fred and Susan Baida doing business as Caveman Auto Wreckers, Grants Pass, summarized his four objections to the Department's hearings officer's final order and judgement relating to the open burning civil penalty. Those objections were:

1. that the Department conducted an unlawful search of the property and did not have a search warrant; that it was the state's burden of proof to obtain a search warrant.

2. that the situation created an unequal violation class; the five-day notice rule applies to some and does not apply to others and was, therefore, an unequal application.

3. that it was the burden of the Department to educate the public about open burning and that was not done.

4. that the de minimis rule applied in this case.

Arnold Silver, Assistant Attorney General, responded to each objection and spoke briefly about the five-day notice. Mr. Henderson further stated that the Department's inspection was an unlawful intrusion, and the investigation should be considered under criminal law procedures.

Commissioner Lorenzen asked Mr. Knudsen about how federal law would be applied in this case. Mr. Knudsen responded the privacy test was not necessarily applied under state law and indicated that federal law does not apply since the respondents had only raised the issue under Oregon law. Mr. Henderson replied that he believed that Oregon law was broader than federal law. Commissioner Lorenzen indicated that the Commission was not an appropriate forum for determining search and seizure laws; Commissioner Squier agreed.

Commissioner Lorenzen **moved** to affirm the Hearings Officer's decision; Commissioner Squier seconded the motion. The motion was unanimously approved by roll call vote. Mr. Knudsen recommended that an order be prepared for the Director's signature on behalf of the Commission. Commissioner Squier **moved** that Mr. Knudsen prepare the order for the Director's signature; Commissioner Whipple seconded the motion, and it was unanimously approved.

Chair Wessinger proposed that Public Forum be moved up from the scheduled time to accommodate representatives of Oregonians for Survival who had requested to testify.

PUBLIC FORUM

Allan Mick, Boise Cascade Corporation, read a statement into the record. He spoke to the Commission about the cooperation and communication that has existed between his company and the Department. However, he said, because of the dioxin and AOX standards imposed, this was no longer true. Mr. Mick said the Department had ignored information presented by Boise Cascade and indicated that the process used by the Department to reach the standards was inadequate. He expressed frustration that the Commission had brushed aside the hearings officer's recommendation at the last meeting. He said Boise Cascade had submitted reports showing that no measurable dioxin/AOX bioaccumulation in crayfish or in sediments in the Columbia River.

Director Hansen stated the Department does not frequently enough reward industries that do a good job. He stated that Boise Cascade has done a good job, that they have made environmental improvements that were not required, and that they were close to meeting the AOX requirement although uncertainty does exist on their ability to comply. He added that cooperation between the Department and Boise Cascade was important but stressed that disagreements were possible. Commissioner Squier said the Commission was struggling with the issue and wanted to prevent any unanticipated problems with dioxin discharges. She said the Commission did not perceive the citizens of St. Helens as evil or intending to harm the environment.

Dan Pascoe, Oregonians for Survival, told the Commission that Oregon was losing its soul. He said the state is being controlled by over zealous regulators who acted without information and consideration. Mr. Pascoe further stated that the citizens of Oregon are subjected to restrictive rules adopted based on incomplete evidence and no consideration of impact on people. He asked the Commission to consider economics and the environment.

Linda Res, Oregonians for Survival, told the Commission of her experiences of attending hearings held by the Department. She said that comments made by staff members irritated her by their insensitivity to the people affected by new rules. Ms. Res indicated that extremists control the public participation process. She concluded by saying that the last Environmental Quality Commission meeting illustrated her point: the Commission did not listen to its own hearings officer and did not fully discuss and consider the ramifications of their ruling. Finally, she asked that the Commission take the chemical hysteria and politics out of their decisions.

E. Non-Point Source Program Overview.

The purpose of this agenda item was to explore fundamental elements of the surface water non-point source program. Andy Schaedel, Water Quality Division, gave an overview of non-point source pollution. Mr. Schaedel said that through the Clean Water Act, the Department was able to address water quality affected by non-point sources. As a result, a non-point source management plan was developed. Mr. Schaedel stressed that the plan involved interagency cooperation and implementation. He provided the Commission with statistics about non-point pollution and indicated that erosion control and riparian management were being used to reach plan objectives. Mr. Schaedel indicated that forestry, grazing and agricultural activities, and urban development and construction affect non-point sources.

He said the Department of Forestry is involved with the plan since streams receive the impact of forestry practices and construction and maintenance of logging roads. He said the tasks identified by Forestry and the Department were stream classification of size and uses and riparian cumulative effects. Mr. Schaedel added that urban development and construction contributed to non-point source pollution. He said the management plan included control of these activities through stormwater rules, basin plans and riparian management. In regard to agricultural activities, the Department is using riparian techniques and using Confined Animal Feeding Operation permits to prevent water quality degradation by non-point sources.

Roger Wood, Water Quality Division, further discussed grazing practices, approaches to environmental maintenance by local entities, creation of partnerships with interested entities and water policies developed by the Governor's Watershed Enhancement Board (GWEB).

Earl Shaver, Delaware Department of Natural Resources and Environmental Control, gave a presentation on the erosion control program developed and implemented in Delaware. He said that a similar program was successful in Maryland. He said Delaware's program provided education, training, development of cooperation and implementation of the program.

Tom Wilson, U. S. Environmental Protection Agency, spoke to the Commission about water quality planning, erosion and riparian management. He said he viewed the environment as "society's garden." Mr. Wilson added that societal costs were rising. He said current practices are inadequate and that new, creative approaches were needed.

F. Commission Member Reports.

Commissioner Whipple reported that the Governor's Watershed Enhancement Board (GWEB) was successful. She said she would report back about the direction of GWEB after their next meeting.

F. Director's Report.

Director Hansen reported the following:

- The Emergency Board approved three Department requests: approval to proceed with bond sales to finance the Orphan Site Account in July 1992; approval to accept federal grants for asbestos control and Clean Air Act implementation, non-point source pollution control and clean lakes program; approval to continue the lower Columbia River water quality study program.

- Governor Roberts nominated Tillamook Bay for participation in the U. S. Environmental Protection Agency's National Estuary program. The program offers funding and other assistance to states and local governments to develop long-range management plans for major estuaries. Tillamook Bay, which offers habitat for shellfish, salmon, trout and waterfowl, faces environmental concerns that are not extensively addressed in other estuary projects.

- The Department issued a notice of intent to revoke the Romaine Village wastewater facilities discharge permit. Romaine Village, a mobile home park near Bend, has had serious problems with subsurface wastewater treatment systems. The Department previously issued an order to Romaine Village to hook up to Bend's sewage treatment system, and the owner has failed to comply with the order.

- A settlement conference was scheduled for the municipal contested case for April 29, 1992.

- A May 5 public meeting was scheduled on the proposal for and independent contractor's review of issues relating to the gold mining rules. The purpose of the meeting was to inform interested public about the contractor's approach and schedule for addressing questions posed on liners, leak detection and leak collection systems, tailings treatment to reduce potential release of toxics and closure of heap leach and tailings facilities.

- The Department will begin the stage II vapor requirements. Although many of the larger service stations have already installed the systems, 71 service stations in Portland will be required to install vapor recovery systems. Along with the air pollution benefits, stage II is expected to conserve approximately a half million gallons of gasoline a year.

- Hearing Authorizations: The following rulemaking hearings have been authorized by the Director since the last meeting.

  Amendments to the Oregon Visibility Protection Plan: provides improvements in Class I wilderness areas.

  Amendments to the Slash Burning Smoke Management Plan: establishes special protection zones within 20 miles of PM_{10} nonattainment areas in western Oregon between November 15 and February 15.

  Amendments to Crematory Incinerator Rules: addresses concerns by crematory operators that Department rules were unnecessarily restrictive for afterburner residence times.

The Commission asked the about the status of indirect source permits.
Steve Greenwood, Administrator of the Air Quality Division, responded to the Commission's question about the indirect source issue discussed at the April 12 EQC meeting. He said the Central City Management Plan was being used by Portland to deal with indirect sources. He said the plan was a structured process involving citizen participation, managing sources and using developed strategies. Director Hansen said the current indirect source rule was used to control carbon monoxide. He indicated, however, the rule does not address summertime ozone. Director Hansen said the issues that need to be considered are how parking structures contribute to ozone levels and how parking structures located near light rail lines affect air quality.

- Director Hansen noted an additional Hearing Authorization approved since the last meeting:

  Enforcement Rule Update: addresses problems that have been identified and incorporates changes to address 1991 legislation. An advisory committee has been assisting in rule amendments development.

H. Work Session: Discussion of Tax Credit Program Issues.

The objective of the work session discussion was to receive direction from the Commission on changes to the tax credit program. Director Hansen provided a brief overview of the tax credit program issues. He said three issues should be considered about the program:

1. Who should be let through the door to be eligible for consideration for tax credits?

2. Once through the door, what kind of benefits should they receive?

3. Should the program be based on priorities rather than the current "entitlement program" approach?

Chair Wessinger said he would like to eliminate the existing program and start over with a zero budget process approach and an assessment environmental benefit resulting from tax credits; Commissioner Castle agreed with the Chair. Commissioner Squier asked whether the program has caused facilities to install equipment that is not required or otherwise would not consider. She also asked if it appease economic damage from more stringent requirements.

Commissioner Lorenzen said the tax credit program was a difficult way to encourage positive environmental responsibilities. He indicated he would prefer a direct payment approach rather than the hidden tax credit. He said he would be interested in two areas: assistance in overcoming the competitive disadvantage for locating in Oregon due to more stringent requirements, and an incentive program for investment in innovative projects which are not required but which have significant value as a demonstration project for technology transfer. Commissioner Castle posed the question of who pays for such a program. He also said the program should provide monetary relief for adjustments to new environmental laws; however, once the controls were in place, facilities should not be eligible to receive further credit.

Commissioner Castle said he believed the state was not receiving environmental benefits from the tax credit program as it existed today. Director Hansen said the program has proven worthwhile in the areas of recycling and other sole purpose applications but that benefits were questionable in field burning applications. Mike Downs, Administrator of the Environmental Cleanup Division, told the Commission that environmental benefit, subsidies and/or incentives were issues to be considered. Mr. Downs said that most tax credit application approvals are awarded to large businesses able to afford upgrades. He suggested the Commission might want to consider restricting awards to small businesses only.

Commissioner Whipple asked about equity of capital investments. Mr. Downs responded that to prevent an inequity and to provide a cap of awards, priorities would need to be assigned. Commissioner Whipple suggested that each applicant have an economic cap. Commissioner Castle pointed out that upgrades to existing equipment would be more costly than for new facilities meeting requirements.

Commissioner Whipple asked whether the Commission should suggest replacement. Commissioner Castle suggested the Commission clarify their thoughts and report back to the legislature. Director Hansen noted that the Governor would welcome suggestions from the Commission. Commissioner Squier suggested that a way to look at the issue would be to consider what could be done with the tax credit dollars that would be more beneficial to the environment. Commissioner Castle stated there is no evidence of environmental benefit from the tax credit program.

Commissioner Castle said he thought the program should be eliminated since it involved equity and economic issues which are difficult to balance. Commissioner Whipple said the Department should encourage state-of-the-art environmental equipment and techniques. Commissioner Lorenzen said the state does not have the luxury for this program and that the program be placed low on the priority list. He suggested the Department receive funds for grants and studies instead.

Director Hansen said the Department could start the program at a zero budget and then discuss the potential for add backs. He said the Department of Economic Development and citizen advisory committees could be used to help in this matter. Commissioner Castle provided a handout of his ideas about the tax credit program. That document is made a part of this hearing record. Commissioner Castle suggested the Department deal with the program on an industry basis instead of an individual basis. Commissioner Squier said the program needed to be examined as to whether it was the appropriate mechanism for achieving environmental compliance. She suggested grants would be preferable to tax credits.

Jim Whitty, Associated Oregon Industry, told the Commission that the tax credit program allowed facilities to more easily reach compliance. Quincy Sugarman, Oregon State Public Interest Research Group, said there were other methods available for facilities to achieve environmental benefits. She said the tax credit dollars should be used to develop prevention programs, to promote waste reduction and to solve non-point source and groundwater pollution. Jean Cameron, Oregon Environmental Council, suggested implementing grants and capital loans instead of tax credits. She said pollution has associated environmental costs and that cost should be shifted back to the polluter. Ms. Cameron said the program should promote best available technology. She added that a new program could subsidize cost of that technology.

Chair Wessinger asked Director Hansen about the timeline of the 1993 legislative session and if enough time was available to develop this issue into a legislative concept. Director Hansen said that concepts were to be submitted to the Executive Department by May 1, the concepts would then be presented to Legislative Counsel by June 1 and that the concepts would become final in November.

The next steps needed to proceed with this issue were summarized:

1. Eliminate the program; consider the impact on the regulated community.

2. Develop a modest program of grants for innovative environmental initiatives.

3. Limit the tax credit program to new requirements for existing industry.

Mr. Downs suggested a work group and zero based budget approach be used. Director Hansen said the Department would draft a legislative concept which will be considered by the Governor and Legislative Counsel. He said the Department would return to the Commission with a concept before the June 1 Commission meeting. Commissioner Lorenzen said he believed this issue was important and of high priority. Director Hansen suggested that the groups who testified develop their ideas and work with the Department to create a concept.

There was no further business, and the meeting was adjourned.

The Commission and Department management staff then went to Menucha for a Commission/staff work session discussion on budgeting for the 1993-95 biennium, developing potential legislative concepts for the 1993 legislative session and considering other matters related to Commission/Department operations. This work session convened on Thursday afternoon and continued through Friday afternoon.

Oregon

ENVIRONMENTAL QUALITY COMMISSION

REQUEST FOR EQC ACTION

Meeting Date: June 1, 1992
Agenda Item: I
Division: Water Quality
Section: Municipal Wastewater

SUBJECT:

Request for a Mass Load Increase for the City of Newberg. An exception to OAR 340-41-026(2) (an EQC Policy Requiring Growth and Development be Accommodated within Existing Permitted Loads unless otherwise approved by the Commission).

PURPOSE:

An exception to the above-referenced EQC Policy would enable the City of Newberg to fully utilize the design capacity of its treatment plant without violating the mass-based effluent limits for Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) in its National Pollutant Discharge Elimination System (NPDES) Permit during the wet weather period, nor impairing the beneficial uses and water quality standards of the Willamette River.

ACTION REQUESTED:

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

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

___ 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 ___

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

DESCRIPTION OF REQUESTED ACTION:

The City of Newberg owns and operates a secondary wastewater treatment facility that discharges treated municipal wastewater to the Willamette River. In September 1987, a new wastewater treatment facility went into operation that replaced the old facility.

At present, the City is operating under the NPDES permit issued in 1984, which imposes mass discharge limitations on Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) based on an Average Dry Weather Design Flow (ADWDF) of 2.0 million gallons per day (mgd). The ADWDF of 2.0 mgd is for the old wastewater treatment facility, and does not reflect the ADWDF of 4.0 mgd for the new facility. The Department is in the process of issuing a NPDES permit for the new facility and has prepared a draft permit (Attachment C) in response to the new application.

Under the current NPDES permit, the City was to complete improvements to the sewerage system by not later than October 1, 1988, and to meet the Willamette Basin monthly average effluent concentrations for BOD and TSS. The dry weather monthly average effluent concentrations for BOD and TSS changed from 20/20 mg/l to 10/10 mg/l, and the wet weather monthly average effluent concentrations for BOD and TSS of 30/30 mg/l did not change.

The Department approved a winter mass load increase prior to construction of the new facility in 1987. However, a new NPDES permit, with the new discharge limits, was not issued prior to construction as should have occurred. At the time that the Newberg facility was built, the Department routinely reviewed and approved winter mass load increases without Commission action. The Department now follows the review and approval process required for all mass load increase requests.

The Department is requesting the Commission approve the winter mass load increase for this existing facility.

AUTHORITY/NEED FOR ACTION:

___	Required by Statute: _____	Attachment ___
	Enactment Date: _____	
___	Statutory Authority: _____	Attachment ___
X	Pursuant to Rule: OAR 340-41-026(2) & (3)	Attachment A
___	Pursuant to Federal Law/Rule: _____	Attachment ___
___	Other:	Attachment ___
___	Time Constraints: (explain)	

DEVELOPMENTAL BACKGROUND:

___	Advisory Committee Report/Recommendation	Attachment ___
X	Hearing Officer's Report/Recommendations	Attachment B
___	Response to Testimony/Comments	Attachment ___
___	Prior EQC Agenda Items: (list)	Attachment ___
___	Other Related Reports/Rules/Statutes:	Attachment ___
X	Supplemental Background Information	
	Draft NPDES Permit	Attachment C
	Wastewater Treatment Plant Design Criteria	Attachment D
	Water Quality Analysis	Attachment E
	Public Notice	Attachment F
	New Plant Certification Limits Letter	Attachment G

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

A letter to the City from the Department on April 15, 1988, stated concentration and mass load limits, which included the increased winter mass load limits, to be met for the certification program of the new facility. This letter granted a winter mass load increase, and the new facility has been operating under the stated limits.

The draft permit was made available for public comment in accordance with public notification requirements for NPDES permits. A public hearing on the proposed permit, which included the winter mass load increase, was held on April 30, 1992. No comments were received with regards to the wet weather mass load increase.

PROGRAM CONSIDERATIONS:

The draft NPDES permit requires the City to conduct a mixing zone analysis to characterize the mixing zone boundary. The draft NPDES permit also includes a compliance schedule should the mixing zone analysis indicate a violation of acute or chronic toxicity standards.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Approval of the wasteload increase request, which would enable the City of Newberg to operate its wastewater treatment facility at the flow that it was designed to accommodate.

2. Denial of the wasteload increase request, which may cause violations of mass-based effluent limitations.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission grant the wasteload increase for the City of Newberg, based on the following findings:

1. A new wastewater treatment facility was constructed and went into operation in September 1987 to accommodate an Average Dry Weather Design Flow of 4.0 mgd.

2. The Department has determined that the difference in the average dissolved oxygen predictions between the City's current and proposed BOD loads has very little impact on the Willamette River.

3. The Department's 1990 Water Quality Status Assessment Report indicates that aquatic life and fishing are affected on an annual basis, caused by 2,3,7,8 TCDD. Water contact is affected from fall through spring, caused by bacteria. Beneficial uses of the Willamette River would not be affected by the mass load increase.

4. The Willamette River is water quality limited only for 2,3,7,8 TCDD (dioxin), and a TMDL for 2,3,7,8 TCDD on the lower Willamette River will be set by the Department. The proposed pollutant parameters (BOD and TSS) are unrelated to the parameter for which a TMDL will be established.

5. A Land Use Compatibility Statement was received from the City of Newberg when the NPDES permit application for the new wastewater treatment facility was submitted. The new facility is consistent with the acknowledged County and City Comprehensive Plans and implementing ordinances.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

This recommendation is consistent with agency policy which allows the Commission to grant an exception to OAR 340-41-026(2), which requires that growth and development be accommodated within existing permitted loads. Water quality standards would not be violated and beneficial uses would be protected with the recommended alternative.

ISSUES FOR COMMISSION TO RESOLVE:

The Commission should consider the appropriateness of granting the wasteload increase to the City of Newberg. State regulations require dischargers to improve the level of treatment as growth and development occurs so that total wasteloads to state waters do not increase. This anti-degradation policy allows exceptions to be made by the Commission.

INTENDED FOLLOWUP ACTIONS:

The draft NPDES Permit will be prepared for final issuance following the Commission's decision. The Permit will reflect the Commission's decision on the wasteload increase request.

Approved:

Section: Barbara A. Burton

Division: _____

Director: _____

Report Prepared By: Judy K. Johndohl

Phone: 229-6896

Date Prepared: April 29, 1992

JKJ:crw
MW\WC10\WC10155

water quality standards for a specific ecoregion, basin, or water body are met. This shall be established by accepted biomonitoring techniques.

(37) "Without detrimental changes in the resident biological community" means no loss of ecological integrity when compared to natural conditions at an appropriate reference site or region.

(38) "Ecological integrity" means the summation of chemical, physical and biological integrity capable of supporting and maintaining a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region.

(39) "Appropriate reference site or region" means a site on the same water body, or within the same basin or ecoregion that has similar habitat conditions, and represents the water quality and biological community attainable within the areas of concern.

Stat. Auth.: ORS Ch. 183.500, 468.020, 468.705, 468.710 & 468.735
Hist.: DEQ 128, f. & ef. 1-21-77; DEQ 24-1981, f. & ef. 9-8-81; DEQ 16-1988, f. & cert. ef. 7-13-88; DEQ 16-1989, f. & cert. ef. 7-31-89 (and corrected 8-3-89); DEQ 30-1989, f. & cert. ef. 12-14-89; DEQ 22-1990, f. & cert. ef. 7-6-90; DEQ 14-1991, f. & cert. ef. 8-13-91

Treatment and Control Required

340-41-010 [SA 26, f. 6-1-67;
Repealed by DEQ 128,
f. & ef. 1-21-77]

Restriction on the Discharge of Sewage and Industrial Wastes and Human Activities Which Affect Water Quality in the Waters of the State

340-41-015 [SA 26, f. 6-1-67;
Repealed by DEQ 128,
f. & ef. 1-21-77]

Maintenance of Standards of Quality

340-41-020 [SA 26, f. 6-1-67;
DEQ 28, f. 5-24-71, ef. 6-25-71;
Repealed by DEQ 128,
f. & ef. 1-21-77]

Implementation of Treatment Requirements and Water Quality Standards

340-41-022 [DEQ 28, f. 5-24-71, ef. 6-25-71;
DEQ 46, f. 6-15-72, ef. 7-1-72;
Repealed by DEQ 128,
f. & ef. 1-21-77]

Mixing Zones

340-41-023 [DEQ 55, f. 7-2-73, ef. 7-15-73;
Repealed by DEQ 128,
f. & ef. 1-21-77]

Testing Methods

340-41-024 [DEQ 55, f. 7-2-73, ef. 7-15-73;
Repealed by DEQ 128,
f. & ef. 1-21-77]

General Water Quality Standards

340-41-025 [SA 26, f. 6-1-67;
DEQ 39, f. 4-5-72, ef. 4-15-72;
DEQ 55, f. 7-2-73, ef. 7-15-73;
Repealed by DEQ 128,
f. & ef. 1-21-77]

Policies and Guidelines Generally Applicable to All Basins

340-41-026 (1) In order to maintain the quality of waters in the State of Oregon, it is the general policy of the EQC that:

(a) Existing high quality waters which exceed those levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water shall be maintained and protected unless the Commission chooses, after full satisfaction of the intergovernmental coordination and public participation provisions of the continuing planning process, to lower water quality for necessary and justifiable economic or social development. The Director or his designee may allow lower water quality on a short-term basis in order to respond to emergencies or to otherwise protect public health and welfare. In no event, however, may degradation of water quality interfere with or become injurious to the beneficial uses of water within surface waters of the following areas:

(A) National Parks;
(B) National Wild and Scenic Rivers;
(C) National Wildlife Refuges;
(D) State Parks.

(b) Point source discharges shall follow policies and guidelines (2), (5), and (6), and nonpoint source activities shall follow guidelines (7), (8), (9), (10), and (11).

(2) In order to maintain the quality of waters in the State of Oregon, it is the general policy of the EQC to require that growth and development be accommodated by increased efficiency and effectiveness of waste treatment and control such that measurable future discharged waste loads from existing sources do not exceed presently allowed discharged loads except as provided in section (3) of this rule.

(3) The Commission or Department may grant exceptions to sections (2) and (6) of this rule and approvals to section (5) of this rule for major dischargers and other dischargers, respectively. Major dischargers include those industrial and domestic sources that are classified as major sources for permit fee purposes in OAR 340-45-075(2):

(a) In allowing new or increased discharged loads, the Commission or Department shall make the following findings:

(A) The new or increased discharged load would not cause water quality standards to be violated;

(B) The new or increased discharge load would not unacceptably threaten or impair any recognized beneficial uses. In making this determination, the Commission or Department may rely upon the presumption that if the numeric criteria established to protect specific uses are met the beneficial uses they were designed to protect are protected. In making this determination the Commission or Department may also evaluate other state and federal agency data that would provide information on potential impacts to beneficial uses for which the numeric criteria have not been set;

(C) The new or increased discharged load shall not be granted if the receiving stream is classified as being water quality limited under OAR 340-41-

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006(30)(a), unless:

(i) The pollutant parameters associated with the proposed discharge are unrelated either directly or indirectly to the parameter(s) causing the receiving stream to violate water quality standards and being designated water quality limited; or

(ii) Total maximum daily loads (TMDLs), waste load allocations (WLAs) load allocations (LAs), and the reserve capacity have been established for the water quality limited receiving stream; and compliance plans under which enforcement action can be taken have been established; and there will be sufficient reserve capacity to assimilate the increased load under the established TMDL at the time of discharge; or

(iii) Under extraordinary circumstances to solve an existing, immediate, and critical environmental problem that the Commission or Department may consider a waste load increase for an existing source on a receiving stream designated water quality limited under OAR 340-41-006(30)(a) during the period between the establishment of TMDLs, WLAs and LAs and their achievement based on the following conditions:

(I) That TMDLs, WLAs and LAs have been set; and

(II) That a compliance plan under which enforcement actions can be taken has been established and is being implemented on schedule; and

(III) That an evaluation of the requested increased load shows that this increment of load will not have an unacceptable temporary or permanent adverse effect on beneficial uses; and

(IV) That any waste load increase granted under subsection (iii) of this rule is temporary and does not extend beyond the TMDL compliance deadline established for the waterbody. If this action will result in a permanent load increase, the action has to comply with subsections (i) or (ii) of this rule.

(D) The activity, expansion, or growth necessitating a new or increased discharge load is consistent with the acknowledged local land use plans as evidenced by a statement of land use compatibility from the appropriate local planning agency.

(b) Oregon's water quality management policies and programs recognize that Oregon's water bodies have a finite capacity to assimilate waste. Unused assimilative capacity is an exceedingly valuable resource that enhances in-stream values specifically, and environmental quality generally. Allocation of any unused assimilative capacity should be based on explicit criteria. In addition to the conditions in subsection (a) of this section, the Commission or Department shall consider the following:

(A) Environmental Effects Criteria:

(i) Adverse Out-of-Stream Effects. There may be instances where the non-discharge or limited discharge alternatives may cause greater adverse environmental effects than the increased discharge alternative. An example may be the potential degradation of groundwater from land application of wastes;

(ii) Instream Effects. Total stream loading may be reduced through elimination or reduction of other source discharges or through a reduction in seasonal discharge. A source that replaces other sources, accepts additional waste from less efficient treatment units or systems, or reduces discharge loadings during periods of low stream flow may be permitted an increased discharge load year-round or during seasons of high flow, as appropriate;

(iii) Beneficial effects. Land application, upland wetlands application, or other non-discharge alternatives for appropriately treated wastewater may replenish groundwater levels and increase streamflow and assimilative capacity during otherwise low streamflow periods.

(B) Economic Effects Criteria. When assimilative capacity exists in a stream, and when it is judged that increased loading will not have significantly greater adverse environmental effects than other alternatives to increased discharge, the economic effect of increased loading will be considered. Economic effects will be of two general types:

(i) Value of Assimilative Capacity. The assimilative capacity of Oregon's streams are finite, but the potential uses of this capacity are virtually unlimited. Thus it is important that priority be given to those beneficial uses that promise the greatest return (beneficial use) relative to the unused assimilative capacity that might be utilized. In-stream uses that will benefit from reserve assimilative capacity, as well as potential future beneficial use, will be weighed against the economic benefit associated with increase loading;

(ii) Cost of Treatment Technology. The cost of improved treatment technology, non-discharge and limited discharge alternatives shall be evaluated.

(4)(a) A receiving stream shall be designated as water quality limited through the biennial water quality status assessment report prepared to meet the requirements of Section 305(b) of the Water Quality Act. Appendix A of the Status Assessment report shall identify: what waterbodies are water quality limited, the time of year the water quality standards violations occur, the segment of stream or area of waterbody limited, the parameter(s) of concern, whether it is water quality limited under OAR 340-41-006(30)(a) or (b) or (c). Appendix B and C of the status assessment report shall identify the specific evaluation process for designating waterbodies limited;

(b) The WQL list contained in Appendix A of the Status Assessment report shall be placed on public notice and reviewed through the public hearing process. At the conclusion of the hearing process and the evaluation of the testimony received and the evaluation of the testimony received, Appendix A will become the official water quality limited list. The Department may add a waterbody to the water quality limited list between status assessment reports after placing that action out on public notice and conducting a public hearing;

(c) For interstate waterbodies, the state shall be responsible for completing the requirements of section (3) of this rule for that portion of the interstate waterbody within the boundary of the state;

(d) For waterbodies designated WQL under OAR 340-41-006(30)(c), the Department shall establish a priority list and schedule for future water quality monitoring activities to determine; if the waterbody should be designated WQL under OAR 340-41-006(30)(a) or (b), if estimated TMDLs

need to be prepared, and if an implementation plan needs to be developed and implemented;

(e) For waterbodies designated WQL under OAR 340-41-006(30)(b), requests for load increases shall be considered following subsection (3)(b) of this rule.

(5) For any new waste sources, alternatives which utilize reuse or disposal with no discharge to public waters shall be given highest priority for use wherever practicable. New source discharges may be approved subject to the criteria in section (3) of this rule.

(6) No discharges of wastes to lakes or reservoirs shall be allowed except as provided in section (3) of this rule.

(7) Log handling in public waters shall conform to current EQC policies and guidelines.

(8) Sand and gravel removal operations shall be conducted pursuant to a permit from the Division of State Lands and separated from the active flowing stream by a water-tight berm wherever physically practicable. Recirculation and reuse of process water shall be required wherever practicable. Discharges, when allowed, or seepage or leakage losses to public waters shall not cause a violation of water quality standards or adversely affect legitimate beneficial uses.

(9) Logging and forest management activities shall be conducted in accordance with the Oregon Forest Practices Act so as to minimize adverse effects on water quality.

(10) Road building and maintenance activities shall be conducted in a manner so as to keep waste materials out of public waters and minimize erosion of cut banks, fills, and road surfaces.

(11) In order to improve controls over nonpoint sources of pollution, federal, state, and local resource management agencies will be encouraged and assisted to coordinate planning and implementation of programs to regulate or control runoff, erosion, turbidity, stream temperature, stream flow, and the withdrawal and use of irrigation water on a basin-wide approach so as to protect the quality and beneficial uses of water and related resources. Such programs may include, but not be limited to, the following:

(a) Development of projects for storage and release of suitable quality waters to augment low stream flow;

(b) Urban runoff control to reduce erosion;

(c) Possible modification of irrigation practices to reduce or minimize adverse impacts from irrigation return flows;

(d) Stream bank erosion reduction projects.

Stat. Auth.: ORS Ch. 183.500, 468.020, 468.705, 468.710 & 468.735
Hist.: DEQ 128, f. & ef. 1-21-77; DEQ 1-1980, f. & ef. 1-9-80; DEQ 13-1989, f. & cert. ef. 6-14-89; DEQ 22-1990, f. & cert. ef. 7-6-90

Biological Criteria

340-41-027 Waters of the State shall be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.

Stat. Auth.: ORS Ch. 468.735
Hist.: DEQ 14-1991, f. & cert. ef. 8-13-91

340-41-029 [Renumbered to 340-40-001 thru 340-40-080]

Beneficial Uses of Waters to be Protected by Special Water Quality Standards

340-41-030 [SA 26, f. 6-1-67; Repealed by DEQ 128, f. & ef. 1-21-77]

Policy on Sewerage Works Planning and Construction

340-41-034 (1) Oregon's publicly owned sewerage utilities have since 1956 developed an increasing reliance on federal sewerage works construction grant funds to meet a major portion of the cost of their sewerage works construction needs. This reliance did not appear unreasonable based on federal legislation passed up through 1978. Indeed, the Environmental Quality Commission (EQC) has routinely approved compliance schedules with deadlines contingent on federal funding. This reliance no longer appears reasonable based on recent and proposed legislative actions and appropriations and the general state of the nation's economy.

(2) The federal funds expected for future years will address a small percentage of Oregon's sewerage works construction needs. Thus, continued reliance by DEQ and public agencies on federal funding for sewerage works construction will not assure that sewage from a growing Oregon population will be adequately treated and disposed of so that health hazards and nuisance conditions are prevented and beneficial uses of public waters are not threatened or impaired by quality degradation.

(3) Therefore, the following statements of policy are established to guide future sewerage works planning and construction:

(a) The EQC remains strongly committed to its historic program of preventing water quality problems by requiring control facilities to be provided prior to the connection of new or increased waste loads;

(b) The EQC urges each sewerage utility in Oregon to develop, as soon as practicable, a financing plan which will assure that future sewerage works construction, operation, maintenance and replacement needs can be met in a timely manner. Such financing plans will be a prerequisite to Department issuance of permits for new or significantly modified sewerage facilities, for approval of plans for new or significantly modified sewerage facilities, or for access to funding assistance from the state pollution control bond fund. The Department may accept assurance of development of such financing plan if necessary to prevent delay in projects already planned and in the process of implementation. The Department will work with the League of Oregon Cities and others as necessary to aid in the development of financing plans;

(c) No sewerage utility should assume that it will receive grant assistance to aid in addressing its planning and construction needs;

(d) Existing sewerage facility plans which are awaiting design and construction should be updated where necessary to include:

(A) Evaluation of additional alternatives where appropriate, and re-evaluation of costs of existing

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State of Oregon
Department of Environmental Quality **Memorandum**

Date: May 1, 1992

To: Environmental Quality Commission

From: Joseph M. Edney, A.I.C.P., Hearings Officer

Subject: Hearings Officer's Report - The City of Newberg has filed an application for a National Pollutant Discharge Elimination System (NPDES) waste discharge permit for the new wastewater treatment facility. The proposed NPDES permit establishes that the City is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system and discharge adequately treated domestic wastewater to the Willamette river from the sewage treatment facility. The term of the proposed permit would be for a period not to exceed 5 years. The discharge from the sewage treatment facility to the Willamette River would not be allowed to violate Water Quality Standards outside the designated mixing zone as adopted in OAR 340-41-445.

A public hearing was held April 30, 1992, beginning at 12:15 p.m., at Newberg Community Center, Main Hall, 502 East 2nd, Newberg, Oregon, to receive oral and written testimony regarding the proposed NPDES permit. Summaries of the testimony received at the hearing are presented below. Testimony summaries are followed by agency responses.

Oral and Written Testimony Received at April 30, 1992, Public Hearing.

1. Elvern Hall, Mayor, City of Newberg

   Mayor Mall indicated that the city has consistently work with the Department over the past years to address several areas of public environmental pollution control including wastewater treatment. He indicated that it is felt that the proposed Enterococci standards may place a tremendous technical and financial burden on the City of Newberg. The City request that the Enterococci bacteria standard be suspended until there has been an opportunity to evaluate the impact of this standard on the environment, and, analyze the technical and financial capabilities of the Cities in the State to meet the standard. He indicated that Newberg City staff and facilities are available to assist in research and evaluation of the proposed standard.

No other oral or written testimony was offered and the public hearing was closed at 12:30 p.m. April 30, 1992. Department offers no response to testimony received.

PUBLIC NOTICE

Permit Number:
Expiration Date: 6/30/97
File Number: 102894

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

WASTE DISCHARGE PERMIT
Department of Environmental Quality
811 Southwest Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5696

Issued pursuant to ORS 468.740 and The Federal Clean Water Act

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ISSUED TO:

City of Newberg
414 E. First Street
Newberg, OR 97132

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Outfall Location
Treated Domestic Sewage and Industrial Waste	001	R.M. 49.7
Emergency Overflows:		
8th St. pump station	002	Chehalem Cr.
River Road	003	R.M. 50.3

PLANT TYPE AND LOCATION:

Activated Sludge - Oxidation Ditch Treatment System
2301 Wynooski Road
Newberg, Oregon 97132
Treatment System Class: IV
Collection System Class: III

RECEIVING SYSTEM INFORMATION:

Basin: Willamette River
Sub-basin: Yamhill/Newberg Pool
Hydro Code: 22=-WILL 49.7 D
Receiving Stream: Willamette River
County: Yamhill

EPA REFERENCE NO: OR-003235-2

Issued in response to Application No. 999206 received June 26, 1987.

This permit is issued based on the land use findings in the permit record.

Lydia Taylor, Administrator _____ Date _____

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system and discharge to public waters adequately treated waste waters only from the authorized discharge point or points established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

Each other direct and indirect discharge to public waters is prohibited.

This permit does not relieve the permittee from responsibility for compliance with any other applicable federal, state, or local law, rule, standard, ordinance, order, judgment, or decree.

SCHEDULE A

1. **Waste Discharge Limitations not to be Exceeded After Permit Issuance.**

a. Outfall Number 001

(1) May 1 - October 31:

Parameter	Average Effluent Concentrations Monthly	Weekly	Mass Load Limits * Monthly Average lb/day	Weekly Average lb/day	Daily Maximum lbs
$CBOD_5$ **	10 mg/l	15 mg/l	334	500	668
TSS	10 mg/l	15 mg/l	334	500	668

(2) November 1 - April 30:

Parameter	Average Effluent Concentrations Monthly	Weekly	Mass Load Limits * Monthly Average lb/day	Weekly Average lb/day	Daily Maximum lbs
$CBOD_5$ **	25 mg/l	40 mg/l	834	1334	1668
TSS	30 mg/l	45 mg/l	1001	1501	2002

(3) Other Parameters (year-round)

	Limitations
Enterococci per 100 ml	Shall not exceed a monthly geometric mean of 33 and no single sample to exceed 61.
pH	Shall be within the range 6.0-9.0.
$CBOD_5$ and TSS percent removal efficiency.	Shall not be less than 85 percent monthly average.
Total Residual Chlorine	Shall not exceed 0.019 mg/l at the edge of the Zone of Immediate Dilution and 0.011 mg/l at the edge of the mixing zone.

(4) Notwithstanding the effluent limitations established by this permit, no wastes shall be discharged and no activities shall be conducted which will violate Water Quality Standards as adopted in OAR 340-41-445 except in the following defined mixing zone:

The mixing zone shall include that portion of the Willamette River within a 50 foot radius of the point of discharge. In addition, the Zone of Immediate Dilution (ZID) shall not exceed 10 percent of the defined mixing zone in any direction from the point of discharge.

* Mass Load Limits based on the average dry weather flow to the facility of 4.0 MGD.

** The $CBOD_5$ concentration limits are considered equivalent to the minimum design criteria for BOD_5 specified in OAR 340-41. These limits and the $CBOD_5$ mass load limits may be adjusted by permit action up or down if more accurate information regarding $CBOD_5/BOD_5$ equivalency becomes available.

b. Outfalls Number 002 and 003:

No wastes shall be discharged from these outfalls and no activities shall be conducted which violate water quality standards as adopted in OAR 340-41-445, unless the cause of the discharge is an upset as defined in Conditions B4 and B6 of the attached General Conditions.

SCHEDULE B

1. Minimum Monitoring and Reporting Requirements.
(unless otherwise approved in writing by the Department)

The permittee shall monitor the parameters as specified below at the locations indicated. The laboratory used by the permittee to analyze samples shall have a quality assurance/quality control (QA/QC) program to verify the accuracy of sample analysis. If QA/QC requirements are not met for any analysis, the results shall be included in the report, but not used in calculations required by this permit. When possible, the permittee shall re-sample in a timely manner for parameters failing the QA/QC requirements, analyze the samples, and report the results.

a. Influent

Item or Parameter	Minimum Frequency	Type of Sample
Total Flow (MGD)	Daily	Continuous Recorder
Flow Meter Calibration	Semi-annual	Verification
$CBOD_5$	2/week	Composite
TSS	2/week	Composite
pH	3/week (Monday through Friday	Grab
Toxics:		
Metals (Ag, As, Cd, Cr, Cu, Hg, Ni, Pb, and Zn), and Cyanide (CN) measured as total in mg/l. (See Note 2/)	Semi-annual using 3 consecutive days between Monday and Friday, inclusive	24-hr daily Composite (See Note 1/)
Total Phenols (See Note 2/)	Semi-annual using 3 consecutive days between Monday and Friday, inclusive	24-hr daily Composite (See Note 1/)

b. Outfall Number 001 (Sewage treatment plant outfall)

Item or Parameter	Minimum Frequency	Type of Sample
Total Flow (MGD)	Daily	Continuous Recorder
Flow Meter Calibration	Semi-annual	Verification
$CBOD_5$	2/week	Composite
NH_3-N	2/week	Composite
TSS	2/week	Composite
pH	3/week (Monday through Friday	Grab

b. Outfall Number 001 (Sewage treatment plant outfall) (cont'd

Item or Parameter	Minimum Frequency	Type of Sample
Enterococci	2/week	Grab
Quantity Chlorine Used	Daily	Measurement
Chlorine Residual	Daily	Grab
Average Percent Removed ($CBOD_5$ and TSS)	Monthly	Calculation
Toxics:		
Metals (Ag, As, Cd, Cr, Cu, Hg, Ni, Pb, and Zn), and Cyanide (CN) measured as total in mg/l. (See Note 2/)	Semi-annual using 3 consecutive days between Monday and Friday, inclusive	24-hr daily Composite (See Note 1/)
Total Phenols (See Note 2/)	Semi-annual using 3 consecutive days between Monday and Friday, inclusive	24-hr daily Composite (See Note 1/)
Toxics Removal	Semi-annual	Calculation (See Note 3/)
Bioassay of effluent from Outfall 001	Semi-annual (Aug. and Feb.)	Acute & chronic bioassay

c. Outfalls Number 002 and 003 (Emergency Overflows)

Item or Parameter	Minimum Frequency	Type of Sample
Flow	Daily (During each occurrence)	Estimate duration and volume

d. Sludge Management (lime stabilized sludge)

Item or Parameter	Minimum Frequency	Type of Sample
Sludge analysis including: Total solids (% dry wt.) Volatile solids (% dry wt.)	Semi-annual	Composite sample to be representative of the product to be land applied (See Note 4/).

d. Sludge Management (lime stabilized sludge) (cont'd)

Item or Parameter	Minimum Frequency	Type of Sample
Sludge nitrogen NH_3-N; NO_3-N; & TKN-N (% dry wt.) Phosphorus-P (% dry wt.) Potassium (% dry wt.) Sludge metals content for Ag, As, Cd, Cr, Cu, Hg, Ni, Pb, & Zn (mg/kg) pH (standard units)		
pH (standard units)	Each batch	Grab sample (See Note 5/).
Quantity and type of lime product used to stabilize sludge	Each batch	Pounds/gallons of sludge land applied.
Record of locations where sludge is applied on land (Site location map to be maintained at treatment facility for review upon request by DEQ)	Each Occurrence	Date, volume & locations where sludges were applied recorded on site location map.

Notes:

1/ Daily 24-hour composite samples shall be analyzed and reported separately.

2/ For influent and effluent cyanide samples and phenol samples, eight (8) discrete grab samples shall be collected over the operating day. Each aliquot shall be of not less than 100 ml and shall be collected and composited into a larger container which has been preserved with sodium hydroxide for cyanide samples, or sulfuric acid for total phenols samples to ensure sample integrity.

3/ Plant removal rates shall be calculated for each 3-day sampling event. Removals shall be calculated by: (1) averaging the three influent concentration values for each parameter collected during the sampling event; (2) averaging the three effluent concentration values for each parameter collected during the sampling event; and (3) using the two average concentrations to calculate the parameter's removal. The removals for each 3-day sampling event as well as monitoring data for each day of sampling shall be reported.

4/ Composite samples shall consist of equal aliquots of equal volume of at least 6 representative batches of lime stabilized solids.

5/ Samples shall be collected from the sludge-lime slurry mixture following 2 hours of lime compound addition and agitation.

2. Reporting Procedures

Monitoring results shall be reported on approved forms. The reporting period is the calendar month. Reports must be submitted to the Department by the 15th day of the following month.

State monitoring reports shall identify the name, certificate classification and grade level of each principal operator designated by the permittee as responsible for supervising the wastewater collection and treatment systems during the reporting period. Monitoring reports shall also identify each system classification as found on page one of this permit.

Monitoring reports shall also include a record of the quantity and method of use of all sludge removed from the treatment facility and a record of all applicable equipment breakdowns and bypassing.

SCHEDULE C

Compliance Conditions and Schedules

1. Mixing Zone Analysis

   a. By no later than six (6) months after permit issuance, the permittee shall submit a study plan and schedule for conducting a mixing zone evaluation. The mixing zone evaluation should be conducted through a dye study or an approved and verified mathematical model and should include a characterization of the zone of initial dilution and the mixing zone boundary. The plan shall include an evaluation of the dispersion, mixing and dilution of the discharged effluent and should be conducted during critical low flow conditions and at the average dry weather design flow for the facility.

   b. If the mixing zone evaluation demonstrates that water quality standards are being violated, the permittee will be required to submit a plan and schedule for upgrading or modifying wastewater control facilities to achieve compliance with water quality standards. The Department will reopen the permit, if necessary, to include appropriate effluent limits for parameters of concern to achieve compliance with water quality standards.

2. The permittee shall have in place a program to identify and reduce inflow and infiltration into the sewage collection system. An annual report shall be submitted to the Department by January 15 each year which details sewer collection maintenance activities that have been done in the previous year and outlines those activities planned for the following year.

3. By no later than sixty (60) days after issuance of this permit, the permittee shall submit a modified sludge management plan in accordance with Oregon Administrative Rule 340, Division 50, "Disposal of Sewage Treatment Plant Sludge and Sludge Derived Products Including Septage". Upon approval of the modified plan by the Department, the plan shall be implemented by the permittee.

4. An adequate contingency plan for the prevention and the handling of spills from each emergency overflow point shall be in force at all times. The spill response plan shall include the posting of high public exposure areas and the issuance of public notifications.

5. The permittee is expected to meet the compliance dates which have been established in this schedule. Either prior to or no later than 14 days following any lapsed compliance date, the permittee shall submit to the Department a notice of compliance or noncompliance with the established schedule. The Director may revise a schedule of compliance if he determines good and valid cause resulting from events over which the permittee has little or no control.

SCHEDULE D

Special Conditions

1. Bioassay

a. The permittee shall conduct chronic whole effluent toxicity bioassay tests of outfall 001 in accordance with the frequency specified in Schedule B with Ceriodaphnia dubia (water flea) and Pimephales promelas (fathead minnow).

b. Bioassay tests shall be dual end-point tests in which both acute and chronic end-points can be determined from the results of a single chronic test. The acute end-point (LC50) only applies when significant mortality occurs.

c. Bioassay shall be conducted in accordance with Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Freshwater Organisms, EPA/600/4-89/001 and Methods for Measuring the Acute Toxicity of Effluents to Aquatic Organisms, EPA (most current edition). Quality assurance criteria, statistical analyses and data reporting for the bioassays shall be in accordance with the EPA document for chronic testing referenced above.

d. The permittee shall make available to the Department, on request, the written standard operating procedures they, or the laboratory performing the bioassays, are using for all toxicity tests required by the Department.

e. If any acute bioassay test indicates that the effluent sample is toxic, another toxicity test using the same species and the same methodology shall be conducted within two weeks. If the second test also indicates toxicity, the permittee shall follow the procedure described in section (g) of this permit condition.

f. If a chronic bioassay test indicates that the effluent sample is toxic at the dilutions determined to occur at the edge of the mixing zone, or if there is no dilution data for the edge of the mixing zone and any chronic bioassay test indicates that the effluent is toxic, another toxicity test using the same species and the same methodology shall be conducted within two weeks. If the second test also indicates toxicity, the permittee shall follow the procedure described in section (g) of this permit condition.

g. If, after following the procedure as described in sections (e) or (f) of this permit condition, two consecutive bioassay test results indicate acute and/or chronic toxicity, the permittee shall evaluate the source of the toxicity and submit a plan and time schedule for achieving compliance with the water quality standards for toxicity. Upon approval by the Department, the permittee will implement the plan until compliance has been achieved. Evaluations shall be completed and plans submitted within 6 months unless otherwise approved in writing by the Department.

2. The permittee shall comply with Oregon Administrative Rules (OAR), Chapter 340, Division 49, "Regulations Pertaining To Certification of Wastewater System Operator Personnel" and accordingly:

a. The permittee shall have its wastewater system supervised by one or more operators who are certified in a classification and grade level (equal to or greater) that corresponds with the classification (collection and/or treatment) of the system to be supervised as specified on page one of this permit.

Note: A "supervisor" is defined as the person exercising authority for establishing and executing the specific practice and procedures of operating the system in accordance with the policies of the permittee and requirements of the waste discharge permit. "Supervise" means responsible for the technical operation of a system, which may affect its performance or the quality of the effluent produced. Supervisors are not required to be on-site at all times.

b. The permittee's wastewater system may not be without supervision (as required by Special Condition 2.a. above) for more than thirty (30) days. During this period, and at any time that the supervisor is not available to respond on-site (i.e. vacation, sick leave or off-call) the permittee must make available another person who is certified at no less than one grade lower than the system classification.

c. If the wastewater system has more than one daily shift, the permittee shall have the shift supervisor, if any, certified at no less than one grade lower than the system classification.

d. The permittee is responsible for ensuring the wastewater system has a properly certified supervisor available at all times to respond on-site at the request of the permittee and to any other operator.

e. The permittee shall notify the Department of Environmental Quality in writing within thirty (30) days of replacement or redesignation of certified operators responsible for supervising wastewater system operation (including shifts). The notice shall be filed with the Water Quality Division, Operator Certification Program (see address on page one). This requirement is in addition to the reporting requirements contained under Schedule B of this permit.

3. All sludge shall be managed in accordance with a sludge management plan approved by the Department of Environmental Quality. No substantial changes shall be made in sludge management activities which significantly differ from operations specified under the approved plan without the prior written approval of the Department.

4. If the permittee's composting facility becomes operational, the facility shall be managed and operated in accordance with OAR 340-61-050, Special Rules Pertaining to Composting Plants. The Department shall be advised of any deviations or deficiencies to these rules and the subsequent schedule for corrective actions.

SCHEDULE E

Pretreatment Activities

The permittee shall implement the following pretreatment activities:

1. The permittee shall conduct and enforce its Industrial Waste Pretreatment Program, as approved by the Department, and comply with the General Pretreatment Regulations (40 CFR Part 403). The permittee shall secure and maintain sufficient resources and qualified personnel to carry out the program implementation procedures described in this permit.

2. The permittee shall adopt all legal authority necessary to fully implement its approved pretreatment program and to comply with all applicable State and Federal pretreatment regulations. The permittee must also establish, where necessary, contracts or agreements with contributing jurisdictions to ensure compliance with pretreatment requirements by industrial users within these jurisdictions. These contracts or agreements shall identify the agency responsible for all implementation and enforcement activities to be performed in the contributing jurisdictions. Regardless of jurisdictional situation, the permittee is responsible for ensuring that all aspects of the pretreatment program are fully implemented and enforced.

3. The permittee shall update its inventory of industrial users at a frequency and diligence adequate to ensure proper identification of industrial users subject to pretreatment standards, but no less than once per year. The permittee shall notify these industrial users of applicable pretreatment standards in accordance with 40 CFR § 403.8(f)(2)(iii).

4. The permittee shall enforce categorical pretreatment standards promulgated pursuant to Section 307(b) and (c) of the Act, prohibited discharge standards as set forth in 40 CFR § 403.5(a) and (b), or local limitations developed by the permittee in accordance with 40 CFR § 403.5(c), whichever are more stringent, or are applicable to nondomestic users discharging wastewater to the collection system. Locally derived discharge limitations shall be defined as pretreatment standards under Section 307(d) of the Act.

   A technical evaluation of the need to revise local limits shall be performed at least once during the term of this permit and must be submitted to the Department as part of the permittee's NPDES permit application, unless the Department requires in writing that it be submitted sooner. Limits development will be in accordance with the procedures established by the Department.

5. The permittee shall issue individual discharge permits to all Significant Industrial Users in a timely manner. The permittee shall also reissue and/or modify permits, where necessary, in a timely manner. Discharge permits must contain, at a minimum, the conditions identified in 40 CFR § 403.8(f)(1)(iii). Unless a more stringent definition has been adopted by the permittee, the definition of Significant Industrial User shall be as stated in 40 CFR § 403.3(t).

6. The permittee shall randomly sample and analyze industrial user effluents at a frequency commensurate with the character, consistency, and volume of the discharge. At a minimum, the permittee shall sample all Significant Industrial Users for all regulated pollutants twice per year, and shall conduct a complete facility inspection once per year. Additionally, at least once every two years the permittee shall evaluate the need for each Significant Industrial User to develop a slug control plan. Where a plan is deemed necessary, it shall conform to the requirements of 40 CFR § 403.8(f)(2)(v).

   Where the permittee elects to conduct all industrial user monitoring in lieu of requiring self-monitoring by the user, the permittee shall gather all information which would otherwise have been submitted by the user. The permittee shall also perform the sampling and analyses in accordance with the protocols established for the user.

   Sample collection and analysis, and the gathering of other compliance data, shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions. Unless specified otherwise by the Director in writing, all sampling and analyses shall be performed in accordance with 40 CFR Part 136.

7. The permittee shall review reports submitted by industrial users and identify all violations of the user's permit or the permittee's local ordinance.

8. The permittee shall investigate all instances of industrial user noncompliance and shall take all necessary steps to return users to compliance. The permittee's enforcement actions shall track its approved Enforcement Response Plan, developed in accordance with 40 CFR § 403.8(f)(5). If the permittee has not developed an approved Enforcement Response Plan, it shall develop and submit a draft to the Department for review within 90 days of the issuance of this permit.

9. The permittee shall publish, at least annually in the largest daily newspaper published in the permittee's service area, a list of all industrial users which, at any time in the previous 12 months, were in Significant Noncompliance with applicable pretreatment requirements. For the purposes of this requirement, an industrial user is in Significant Noncompliance if it meets one or more of the criteria listed in 40 CFR 403.8(f)(2)(vii).

10. The permittee must develop and maintain a data management system designed to track the status of the industrial user inventory, discharge characteristics, and compliance. In accordance with 40 CFR § 403.12(o), the permittee shall retain all records relating to pretreatment program activities for a minimum of three years, and shall make such records available to the Department and U.S.E.P.A. upon request. The permittee shall also provide public access to information considered effluent data under 40 CFR Part 2.

11. The permittee shall submit by March 1 of each year, a report (2 copies) that describes the permittee's pretreatment program during the previous calendar year. The content and format of this report shall be as established by the Department.

12. The permittee shall submit in writing to the Department a statement of the basis for any proposed modification of its approved program and a description of the proposed modification in accordance with 40 CFR § 403.18(b). No substantial program modifications may be implemented by the permittee prior to receiving written authorization from the Department.

P102894W (4-1-92)

NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468.720 and is grounds for enforcement action; for permit termination, suspension, or modification; or for denial of a permit renewal application.

2. Penalties for Violations of Permit Conditions

Oregon Law (ORS 468.140) allows the Director to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit.

In addition, Oregon Law (ORS 468.990) classifies a willful or negligent violation of the terms of a permit or failure to get a permit as a misdemeanor and a person convicted thereof shall be punishable by a fine of not more than $25,000 or by imprisonment for not more than one year, or by both. Each day of violation constitutes a separate offense.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee shall correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and have the permit renewed. The application shall be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;

b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee shall comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

8. Permit References

Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent

necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality and/or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Prohibition of bypass.

(1) Bypass is prohibited unless:

(a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(c) The permittee submitted notices and requests as required under paragraph c of this section.

(2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to

bypassing, when the Director determines that it will meet the three conditions listed above in paragraph b(1) of this section.

c. Notice and request for bypass.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section D, Paragraph D-5.

4. Upset

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Section B.4.c. of these General Conditions are met. No determination made during administrative review of claims that non-compliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the causes(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The permittee submitted notice of the upset as required in Section D.5., hereof (24-hour notice).

(4) The permittee complied with any remedial measures required under Section A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event

For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without an NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations

a. Definitions

(1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.

(3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

b. Prohibition of overflows. Overflows are prohibited unless:

(1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage; and

(2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and

(3) The overflows are the result of an upset as defined in Condition B4 and meeting all requirements of this condition. Overflows caused by operation error, improperly designed facilities, or lack of preventative maintenance are not beyond the reasonable control of the permittee. Overflows

caused by infiltration or inflow, or inadequate conveyance system capacity are not beyond the reasonable control of the permittee.

c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in Condition D.5.

7. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee shall take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10

percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years or both.

5. Reporting of Monitoring Results

Monitoring results shall be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports shall be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value shall be recorded unless otherwise specified in this permit.

7. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean, except for bacteria which shall be averaged based on a geometric or log mean.

8. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or

application. This period may be extended by request of the Director at any time.

9. Records Contents

Records of monitoring information shall include:

a. The date, exact place, time and methods of sampling or measurements;

b. The individual(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

10. Inspection and Entry

The permittee shall allow the Director, or an authorized representative upon the presentation of credentials to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and

d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall comply with Oregon Administrative Rules (OAR) 340, Division 52, "Review of Plans and Specifications". Except where exempted under OAR 340-52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers shall be commenced until the plans and specifications are submitted to and approved by the Department. The permittee shall give notice to the Department as soon as possible of

any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit shall be transferred to a third party without prior written approval from the Director. The permittee shall notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally (by telephone) within 24 hours from the time the permittee becomes aware of the circumstances. During normal business hours, the Department's Regional office shall be called. Outside of normal business hours, the Department shall be contacted at 1-800-452-0311 (Oregon Accident Response System). A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected; and

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

e. Public notification steps taken, pursuant to General Condition B-6.

The following shall be included as information which must be reported within 24 hours under this paragraph:

a. Any unanticipated bypass which exceeds any effluent limitation in this permit.

b. Any upset which exceeds any effluent limitation in the permit.

c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in the permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permittee shall report all instances of non-compliance not reported under Section D4 or D5, at the time monitoring reports are submitted. The reports shall contain:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected; and

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified in accordance with 40 CFR 122.22.

9. Falsification of Reports

State law provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than $1,000 per violation, or by imprisonment for not more than six months per violation, or by both.

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids (non-filterable residue).
3. Mg/l means milligrams per liter.
4. Kg means kilograms.
5. M^3/d means cubic meters per day.
6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-41.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discreet sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means any period of seven consecutive days within a calendar month.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and enterococci bacteria.

DESIGN POPULATION

POPULATION SERVED	27,000
INDUSTRIAL POPULATION EQUIVALENT	9,500

ESTIMATED LOADINGS

FLOW, MGD	
AVERAGE DRY WEATHER 24-HOUR FLOW (ADWF)	4.0 MGD
MAXIMUM DAY DRY WEATHER FLOW (MDWF)	6.0 MGD
PEAK DRY WEATHER FLOW (PDWF)	8.0 MGD
AVERAGE WET WEATHER 24-HOUR FLOW (AWWF)	6.5 MGD
MAXIMUM DAY WET WEATHER FLOW (MWWF)	8.7 MGD
PEAK WET WEATHER FLOW (EQUALIZED) (PWWF)	12.0 MGD
PEAK UNEQUALIZED WET WEATHER FLOW	18.0 MGD
BIOCHEMICAL OXYGEN DEMAND	
AVERAGE DAYAGE	7,200 LB/DA
DRY WEATHER AVERAGE CONCENTRATION	215 MG/L
WET WEATHER AVERAGE CONCENTRATION	113 MG/L
MAXIMUM DAY	10,800 LB/DA
TOTAL SUSPENDED SOLIDS	
AVERAGE DAY	5,000 LB/DA
DRY WEATHER AVERAGE CONCENTRATION	150 MG/L
WET WEATHER AVERAGE CONCENTRATION	92 MG/L
MAXIMUM DAY	7,500 LB/DA
NUTRIENTS	
AMMONIA-N, DRY WEATHER CONCENTRATION	30 MG/L
PHOSPHORUS, DRY WEATHER CONCENTRATION	8 MG/L
ALKALINITY AS $CaCO_3$	140 MG/L

INFLUENT PUMP STATION

NUMBER OF PUMPS	2	2
HORSEPOWER	200	120
TYPE	SUBMERSIBLE	SUBMERSIBLE
DRIVE TYPE	VARIABLE SPEED	CONSTANT SPEED
CAPACITY @ 92 FT HEAD	9.0 MGD	4.5 MGD

FORCE MAIN TO TREATMENT PLANT	
TYPE	2 BARREL
DIAMETER	20 INCH
VELOCITY AT 4 MGD (1 BARREL)	2.84 FPS
VELOCITY AT 18 MGD (2 BARREL)	5.67 FPS

FLOW MEASUREMENT				
SERVICE	INFLUENT	RAS	WAS	SECONDARY EFFLUENT
TYPE	MAGNETIC	MAGNETIC	MAGNETIC	PROPELLOR
NUMBER	2	4	2	1
SIZE	10"	8"	2"	30"
CAPACITY RANGE	0-15 MGD	0.5-5MGD	0-500 GPM	1-12 MGD

SERVICE	FINAL EFFLUENT	TANK DRAIN
TYPE	WEIR	FLUME
NUMBER	1	1
SIZE		24"
CAPACITY RANGE	1-18 MGD	0-5

INFLUENT SCREENING

	MANUALLY CLEANED	MECHANICALLY CLEANED
TYPE		
NUMBER	1	1
CHANNEL WIDTH, FT	4.0	4.0
CHANNEL DEPTH 18 MGD, FT	2.5	2.5
OPENING BETWEEN BARS, IN	3/4	1
VELOCITY THROUGH CLEAN SCREENS, 18 MGD, FT/SEC	3.0	3.0
4 MGD	1.8	1.8

GRIT REMOVAL

GRIT CHAMBERS	
NUMBER	1
DEPTH	12 FT
WIDTH	18 FT
LENGTH	24 FT
VOLUME	5,200 CF
DETENTION TIME @ 4 MGD	14 MIN
DETENTION TIME @ 18 MGD	3 MIN
AERATION SYSTEM	
NUMBER OF BLOWERS	1
TYPE	ROTARY
BLOWER CAPACITY	154 CFM
MOTOR	10 HP
DRIVE	CONSTANT SPEED
GRIT PUMPS	
NUMBER	2
TYPE DRIVE	CONSTANT
CAPACITY, GPM	200 GPM
MOTOR	10 HP
CYCLONE GRIT SEPARATOR	
CAPACITY	200 GPM
GRIT WASHER	
TYPE	SPIRAL CLASSIFIER
CAPACITY	0.5 TONS/HR
MOTOR	0.5 HP
GRIT/SCREENINGS HOPPER	
NUMBER	1
VOLUME PER HOPPER	3 CY
SCREENINGS LOADS @ 5 CF/MG, 8.7 MGD	44 CF/DA
GRIT LOADS @ 7 CF/MG, 8.7 MGD	61 CF/DA

EQUALIZATION BASIN

VOLUME @ 2 FT WATER DEPTH (MIN)	0.1 MG
VOLUME @ 12 FT WATER DEPTH (MAX)	1.3 MG
AERATION AND MIXING PUMPS	
NUMBER	2
TYPE	JET AERATION
MOTOR	7.5 HP
CONTROL	AUTOMATIC
MAXIMUM RETURN RATE TO INFLUENT PUMP STATION	2 MGD

OXIDATION DITCH

NUMBER	2
VOLUME, EACH	2 MILLION GALLONS
DETENTION TIME AT 4 MGD	24 HOURS
DETENTION TIME AT 6.5 MGD	15 HOURS
BOD LOADING, AVERAGE DAY	13.3 LB/DA/1000 CF
MAXIMUM DAY	20.0 LB/DA/1000 CF
AVERAGE DAY, 1 UNIT OTS	26.6 LB/DA/1000 CF
F/M @ 2,000 MG/L MLVSS AVG. DAY	0.11 LB BOD/LB MLVSS/DA
@ 3,000 MG/L MLSS MAX. DAY	0.16 LB BOD/LB MLVSS/DA
EXPECTED SOL. EFFLUENT BOD	
SUMMER T = 16 DEGREES C	5 MG/L
WINTER T = 7 DEGREES C	16 MG/L
SLUDGE AGE	
SUMMER T = 16 DEGREES C	25 DAYS
WINTER T = 7 DEGREES C	20 DAYS
OXYGEN REQUIREMENTS	
SUMMER AVERAGE LOADING	6,500 LB/DA
MAXIMUM DAY LOADING	10,100 LB/DA
MAXIMUM DAY WITH NITRIFICATION	14,700 LB/DA

OXIDATION DITCH AERATORS

NUMBER PER DITCH	4
TYPE	ROTATING BRUSH
DIAMETER	42 INCHES
LENGTH	27 FEET
HORSEPOWER PER ROTOR	50
OXYGEN SUPPLIED AT MAXIMUM HORSEPOWER	3 LB/HP/HR
HORSEPOWER PER MG	100

SECONDARY CLARIFIERS

NUMBER	3
DIAMETER	80 FEET
AREA, EACH	5,020 SF
SIDE WATER DEPTH	15 FEET
VOLUME, EACH	81,000 CF
DETENTION TIME	
2 MGD/CLARIFIER	7.3 HRS
OVERFLOW RATE	
2 MGD/CLARIFIER	400 GPD/SF
4 MGD/CLARIFIER	800 GPD/SF
6 MGD/CLARIFIER	1200 GPD/SF
8 MGD/CLARIFIER	1600 GPD/SF
SOLIDS LOADING @ 3,000 MG/L MLSS	
2 UNITS @ 4 MGD + 100% RAS	20 LB/DA/SF
2 UNITS @ 8 MGD + 100% RAS	40 LB/DA/SF
3 UNITS @ 6.5 MGD + 100% RAS	22 LB/DA/SF
3 UNITS @ 12 MGD + 67% RAS	33 LB/DA/SF
WEIR LENGTH/CLARIFIER	377 FT
WEIR RATE	
2 MGD/CLARIFIER	5300 GPFPD
4 MGD/CLARIFIER	10600 GPFPD
6 MGD/CLARIFIER	15900 GPFPD
8 MGD/CLARIFIER	21200 GPFPD

RETURN ACTIVATED SLUDGE PUMPS

NUMBER, VARIABLE SPEED	4
CAPACITY, EACH MIN.	280 GPM
CAPACITY, EACH MAX.	2800 GPM
MOTOR	40 HP
MAXIMUM RAS RATE	8 MGD

WASTE ACTIVATED SLUDGE PUMPS

NUMBER	3
CAPACITY, EACH	300 GPM
MOTOR	7.5 HP
TYPE DRIVE	VARIABLE

ALUM SYSTEM

DOSAGE, MAXIMUM	120 MG/L
DOSAGE, DESIGN OPERATING	60 MG/L
SLUDGE PRODUCTION ALPO(4)	800 LB/DA
CONCENTRATED ALUM STORAGE TANK CAPACITY	11,000 GAL
CONCENTRATED ALUM METERING PUMPS	
TYPE	POSITIVE DISPLACEMENT
CAPACITY	35-800 GPM
MOTOR	1/4 HP
ALUM SOLUTION MIXER	
TYPE	STATIC IN-LINE

SODA ASH SYSTEM

DRY SODA ASH FEEDER	
TYPE	SCREW
FEED RATE	20-1200 LB/DA
HOPPER CAPACITY	600 LB
MOTOR	1/4 HP
MIXING TANK VOLUME	75 GAL
SODA ASH SOLUTION MIXER	
TYPE	PROPELLER
MOTOR	1/4 HP
SODA ASH SOLUTION PUMPS	
NUMBER	2
TYPE	--
CAPACITY	5 GPM
MOTOR	1/4 HP

CLARIFIER DISTRIBUTION BOX FLASH MIXER

TYPE	PROPELLER
MOTOR	2 HP

SCUM PUMPS

NUMBER	2
TYPE	WET PIT CHOPPER
CAPACITY,GPM	50
MOTOR	7-1/2 HP

DISINFECTION

CHLORINATORS	
NUMBER	2
DOSAGE CONTROL	FLOW PACED
CAPACITY (EACH)	500 LB/DAY
AVERAGE DOSAGE 3 MG/L @ 4 MGD	100 LB/DAY
PEAK DOSAGE 7.5 MG/L @ 12 MGD	750 LB/DAY
CONTAINER SIZE	2000 LB GAS
CHLORINE CONTACT TANKS	
NUMBER	2
VOLUME (TOTAL)	36,000 CF
DETENTION TIME, 6.5 MGD	60 MINUTES
4.0 MGD	97 MINUTES
8.0 MGD	49 MINUTES
12.0 MGD	32 MINUTES

RECLAIMED WATER SYSTEM

RECLAIMED WATER PUMPS	
NUMBER	4
TYPE	VERTICAL TURBINE
CAPACITY, EACH	350 GPM
MOTOR	25 HP
STRAINER	
TYPE	SELF CLEANING
MESH SIZE	1/32 INCH
MOTOR	1/3 HP
ITEMS SERVED BY STRAINER:	CHLORINE CONTACT SPRAYS
	CLARIFIER SPRAYS
	BELT PRESS SPRAYS
	SODA ASH MIXING
	POLYMER DILUTION
	ALUM DILUTION
	WASH WATER
	SLUDGE STORAGE SPRAY TANKS

OUTFALL DIFFUSER

DIAMETER	24 INCH
NUMBER OF PORTS	1
DEPTH OF WATER OVER DIFFUSER	
SUMMER LWL @ ELEV. 63	8 FT
WINTER HWL @ ELEV. 93	36 FT

SLUDGE PRODUCTION

BIOLOGICAL SLUDGE	
SUMMER AVERAGE DAY	6,300 LB/DA
WINTER AVERAGE DAY	7,000 LB/DA
MAXIMUM DAY	10,500 LB/DA
CHEMICAL SLUDGE (ONLY DURING UPSET CONDITIONS)	
ALUM SLUDGE @ 60 MG/L DOSAGE, 4 MGD	800 LB/DA

SLUDGE HOLDING TANKS

NUMBER	2
CAPACITY, EACH	80,000 GAL
AREA, EACH	900 SF
MAXIMUM DEPTH	12 FT
AERATION SYSTEM	
TYPE	COARSE BUBBLE AERATION
NUMBER OF BLOWERS	2
TYPE	ROTARY
CAPACITY, EACH	375 CFM
MOTOR	20 HP
DRIVE	VARIABLE SPEED

SLUDGE TRANSFER PUMPS		
TYPE OF SLUDGE	THS	WAS
NUMBER	1	2
TYPE	PISTON	CENTRIFUGAL
CAPACITY, EACH	86 GPM	250 GPM
MOTOR	3 HP	10 HP
DRIVE	VARIABLE SPEED	VARIABLE SPEED

DISSOLVED AIR FLOTATION THICKENERS

TANKS	
NUMBER	2
SURFACE AREA, EACH	400 SF
WIDTH	10 FT
SIDE WATER DEPTH	12 FT
DESIGN LOADING	
SOLIDS LOADING	1.9 LB/HR/SF
HYDRALIC LOADING	2.5 GPM/SF
REMOVAL EFFICIENCY	90%
THICKENED SLUDGE CONCENTRATION	4%
FLOW ELEMENTS	
NUMBER	2
TYPE	MAGNETIC
CAPACITY, EACH	400 GPM
PRESSURIZATION SYSTEM	
DESIGN AIR-TO-SOLIDS RATIO AT MAX. LOADING	0.03
RETENTION TANK PRESSURE	70 PSIG
PRESSURIZATION PUMPS	
NUMBER	2
TYPE	END SUCTION CENTRIFUGAL
CAPACITY, EACH	700 GPM
MOTOR	50 HP
PRESSURIZATION FLOW SERVICE	
NORMAL	EFFLUENT RECYCLE
ALTERNATE	RECLAIMED WATER
FLOW ELEMENTS	
PRESSURIZATION FLOW	
NUMBER	2
TYPE	ORIFICE
CAPACITY, EACH	800 GPM
SERVICE AIR SYSTEM	
COMPRESSOR TYPE	RECIPROCATING
NUMBER	2
CAPACITY	17 SCFM
PRESSURE	100 PSIG
SLUDGE REMOVAL SYSTEM	
TOP SKIMMERS SPEED	1-10 FPM
BOTTOM COLLECTORS SPEED	1 FPM
BOTTOM SCREW CONVEYORS SPEED	10 FPM
THICKENED SLUDGE PUMPS	
NUMBER	2
TYPE	PROGRESSING CAVITY
CAPACITY, EACH	4-100 GPM
MOTOR	5 HP
FLOW ELEMENTS	
NUMBER	2
TYPE	MAGNETIC
CAPACITY, EACH	100 GPM

BELT PRESS DEWATERING

TYPE	BELT FILTER PRESS
NUMBER	2
BELT WIDTH, EA	2.0 M
LOADINGS, 5 DA/WK, 8 HR/DA, 90% EFF.	
SOLIDS	310 LB/HR/M
LIQUID, 4% DS	15.5 GPM/M
PERFORMANCE REQUIREMENTS	
CAKE SOLIDS	16%
SOLIDS CAPTURE	90%
POLYMER CONSUMPTION	20 LB/TON DS
DEWATERED SLUDGE PRODUCTION	
5 DA/WK	30.6 TPD

POLYMER FEED SYSTEM

CONCENTRATED LIQUID POLYMER STORAGE TANK CAPACITY	7,000 GAL
CONCENTRATED LIQUID POLYMER PUMP	
TYPE	PROGRESSING CAVITY
CAPACITY	30 GPM
MOTOR	3/4 HP
DRIVE TYPE	CONSTANT SPEED
DRY POLYMER FEEDER	
TYPE	SCREW
HOPPER CAPACITY	2 CF
MOTOR	1/4 HP
MIXING TANKS	
NUMBER	2
CAPACITY, EACH	750
POLYMER MIXERS	
NUMBER	2
TYPE	PROPELLER
MOTOR	1 HP
MIXED POLYMER TRANSFER PUMPS	
NUMBER	2
TYPE	PROGRESSING CAVITY
CAPACITY	30 GPM
MOTOR	1 HP
DRIVE TYPE	CONSTANT SPEED
POLYMER METERING TANKS	
NUMBER	2
CAPACITY, EACH	550 GAL

POLYMER METERING PUMPS		
NUMBER	3	2
TYPE	PROGRESSING CAVITY	PROGRESSING CAVITY
CAPACITY, EACH	0.3 TO 3.0 GPM	0.2 TO 2.0 GPM
MOTOR	3/4 HP	3/4 HP
DRIVE TYPE	VARIABLE SPEED	VARIABLE SPEED

COMPOSTING FACILITY

VOLUME	900 CY
PRODUCTION AT DESIGN	3,000 T/YR
	6,000 CY/YR

DESIGN DATA

P-1

Figure 1.3

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: May 12, 1992

TO: File

FROM: Mike Wiltsey

SUBJECT: City of Newberg STP Mass Load Increase

BACKGROUND

The City of Newberg has requested a winter-time mass load increase for its upgraded municipal wastewater treatment plant. The City's wastewater facility discharges to the Willamette River at river mile 50.3. The City is currently permitted a winter monthly average biochemical oxygen demand (BOD) load of 500 pounds per day. The City has made a request to double the BOD load due to an expansion of its treatment plant. This will allow the plant to serve a larger population. The Environmental Quality Commission (EQC) must approve the mass load increase for a plant the size of Newberg's.

I have modelled the dissolved oxygen in the Willamette River to determine the impact of a winter increase in the BOD load from the City of Newberg wastewater discharge.

RECOMMENDATION

The water quality model predicts the reduction in the stream dissolved oxygen due to oxygen demanding wastes. Biochemical oxygen demand is one of those wastes. The model was run twice, at current BOD loads, and with the added BOD load proposed by the City. The model predictions were then compared to determine whether the higher BOD load would result in a significant decrease in Willamette River dissolved oxygen.

The difference in the average dissolved oxygen predictions between the City's current and proposed BOD loads was 0.02 mg/l. This very small difference is not statistically significant and has very little environmental impact on the Willamette River.

I recommend that the mass load increase be approved due to the City's need for additional treatment plant capacity, and the minimal impact of the additional BOD loading on the Willamette River.

ANALYSIS

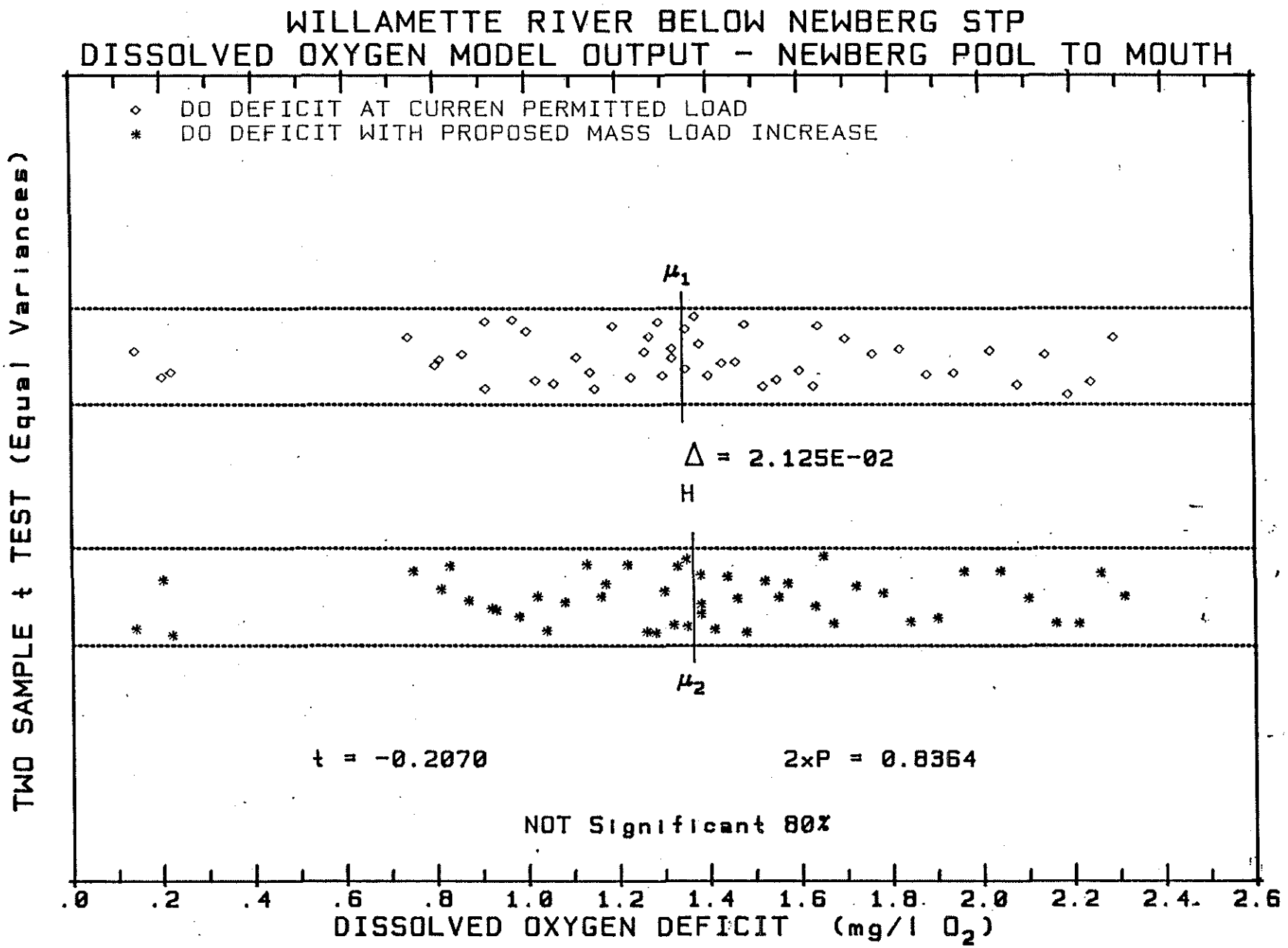
The Environmental Protection Agency approved water quality model, QUAL2E, was used to assess the impact of the proposed City of Newburg winter mass load increase. Winter low flow, steady state conditions were used as input to simulate worst case conditions. Hydraulics were estimated from a dye study performed by the United States Geological Survey. Rearation and decay coefficients were derived from a 1988 Willamette River study done by the Department. The model covered the Willamette River system from Springfield to river mile 1.0, including major point sources and tributaries.

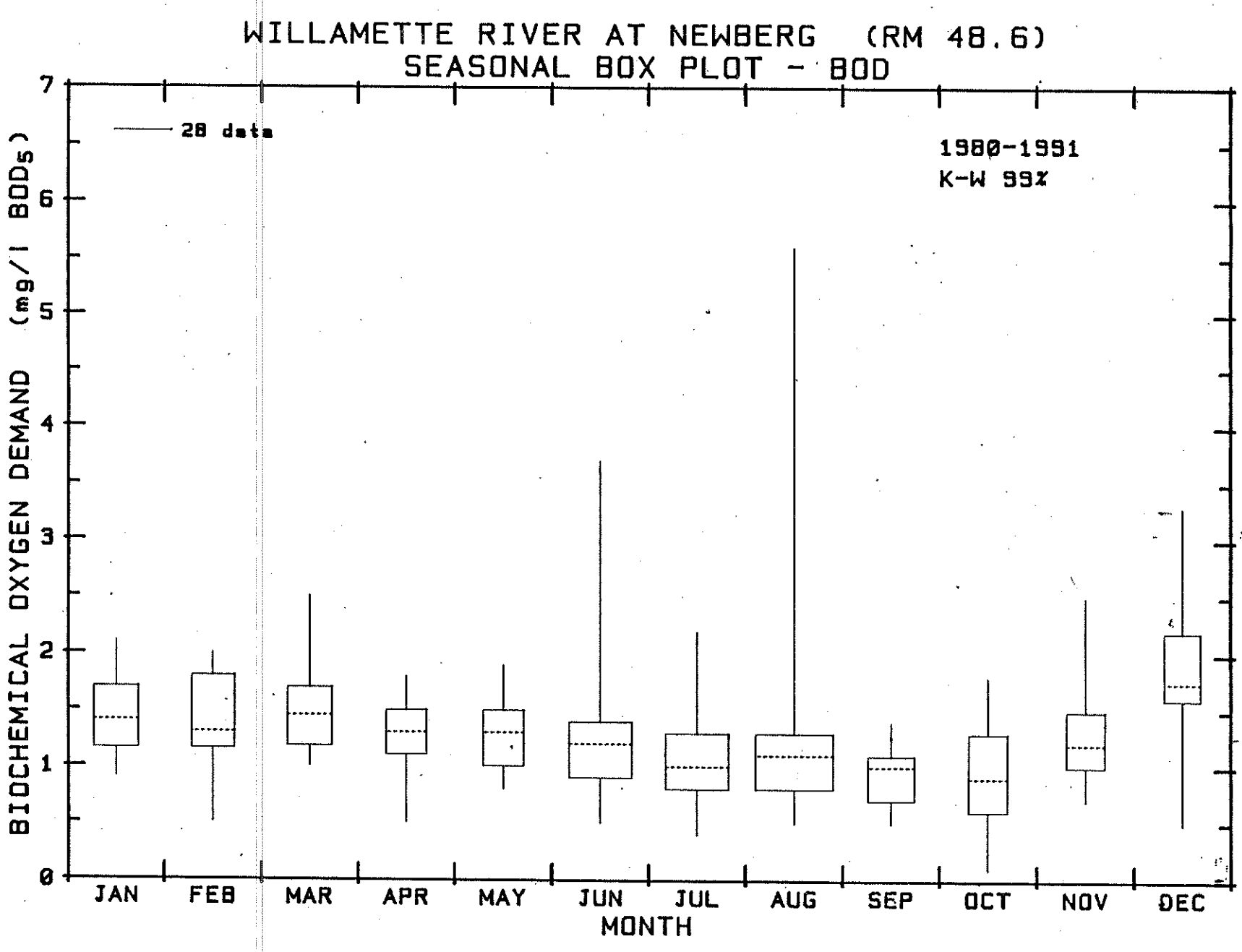
Key historical water quality data for the Willamette River at Newberg were summarized on the attached box plots. This information was used to judge the accuracy of model predictions at the Newberg Pool.

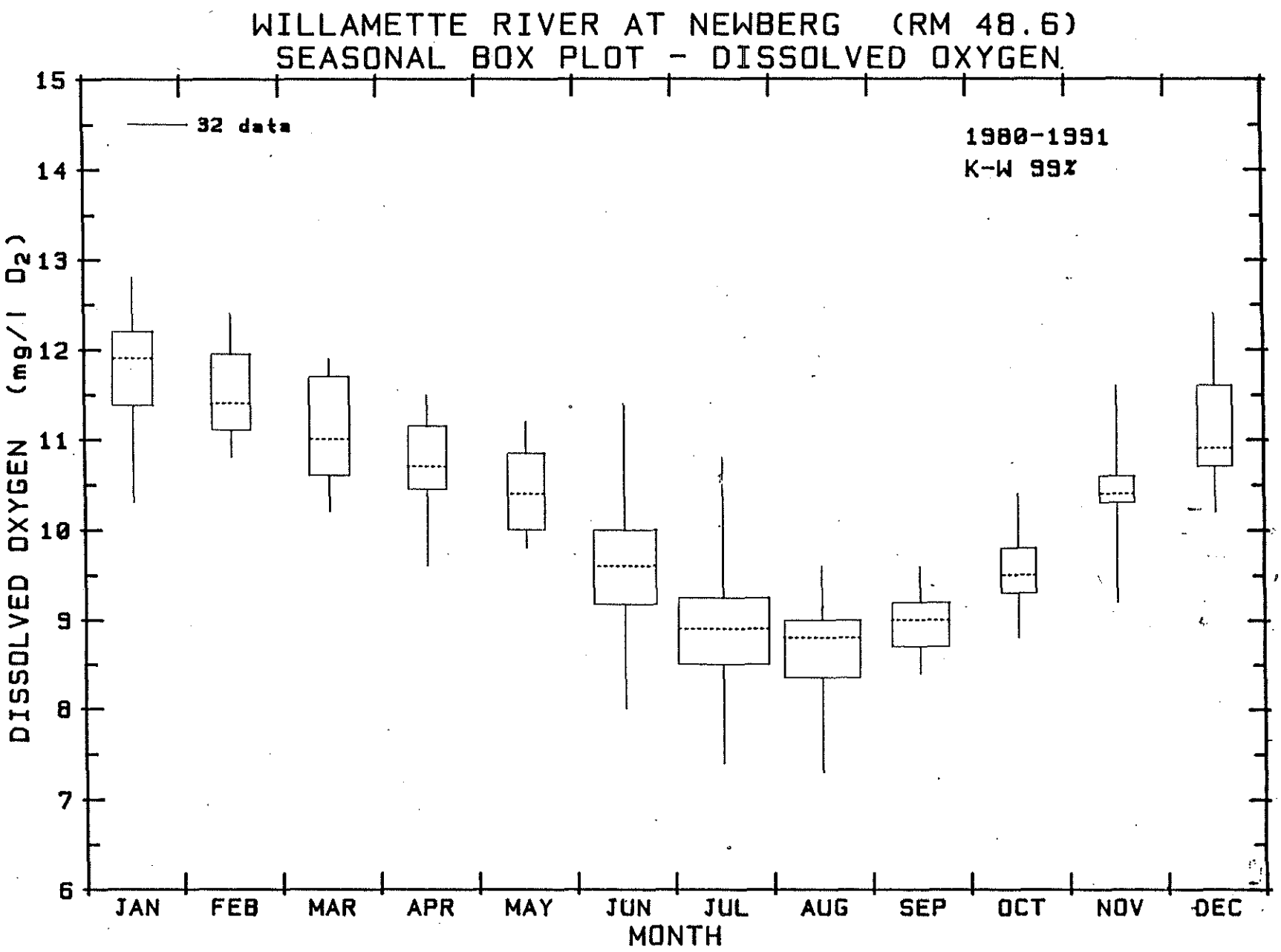
After minor adjustments to flow and temperature input, the model agreed well with historical water quality data. Then the current and proposed Newburg sewage treatment plant BOD loads were evaluated. Dissolved oxygen predictions were made at one mile intervals from the Newberg discharge to river mile 1.0.

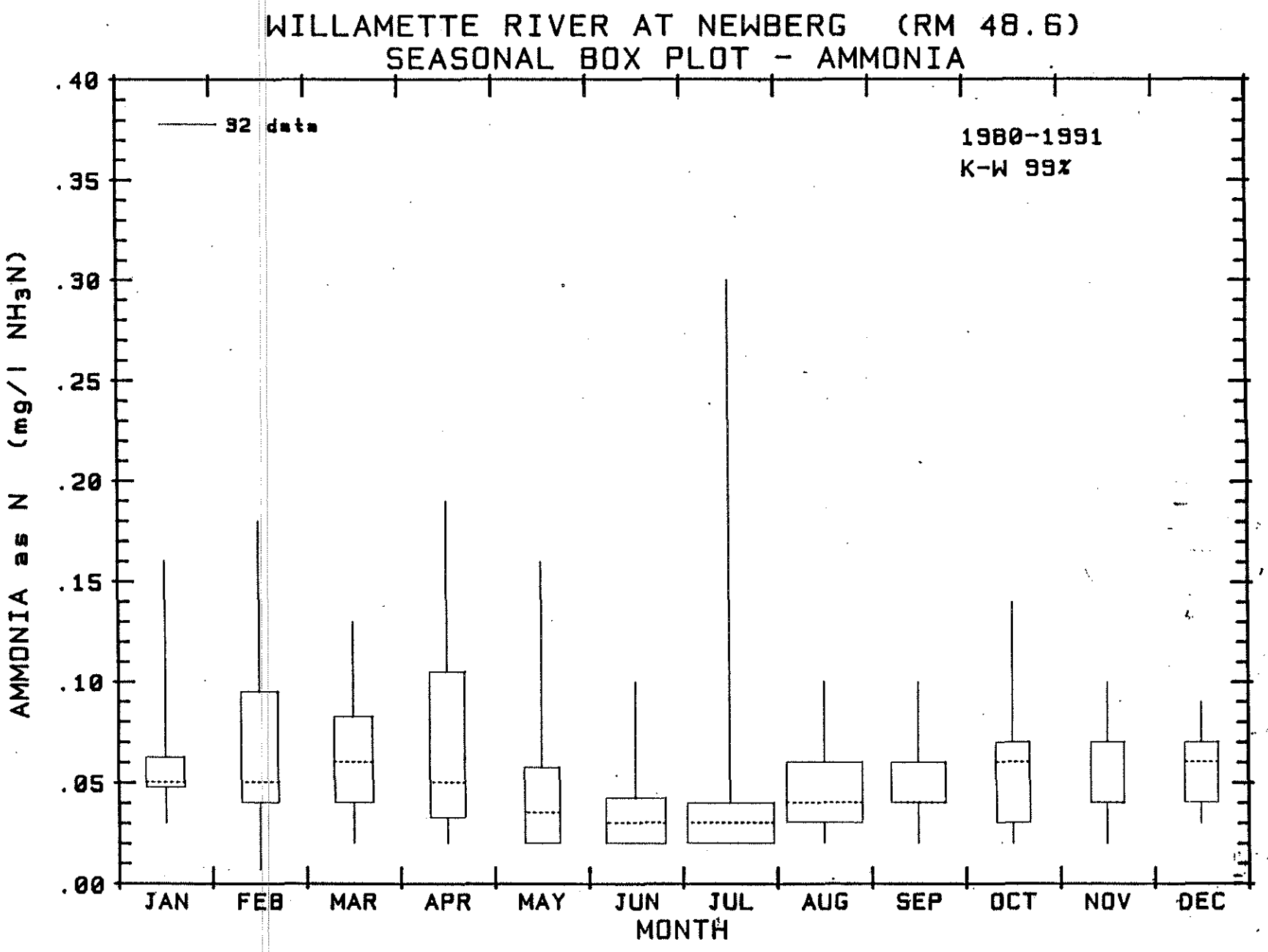
A comparison of the average reduction in instream dissolved oxygen at the current and proposed wastewater BOD loads was not statistically significant (see attached t Test plot). The average net decrease in dissolved oxygen at the higher BOD load was 0.02 mg/l. This difference remained fairly constant from Newberg to river mile 1.0.

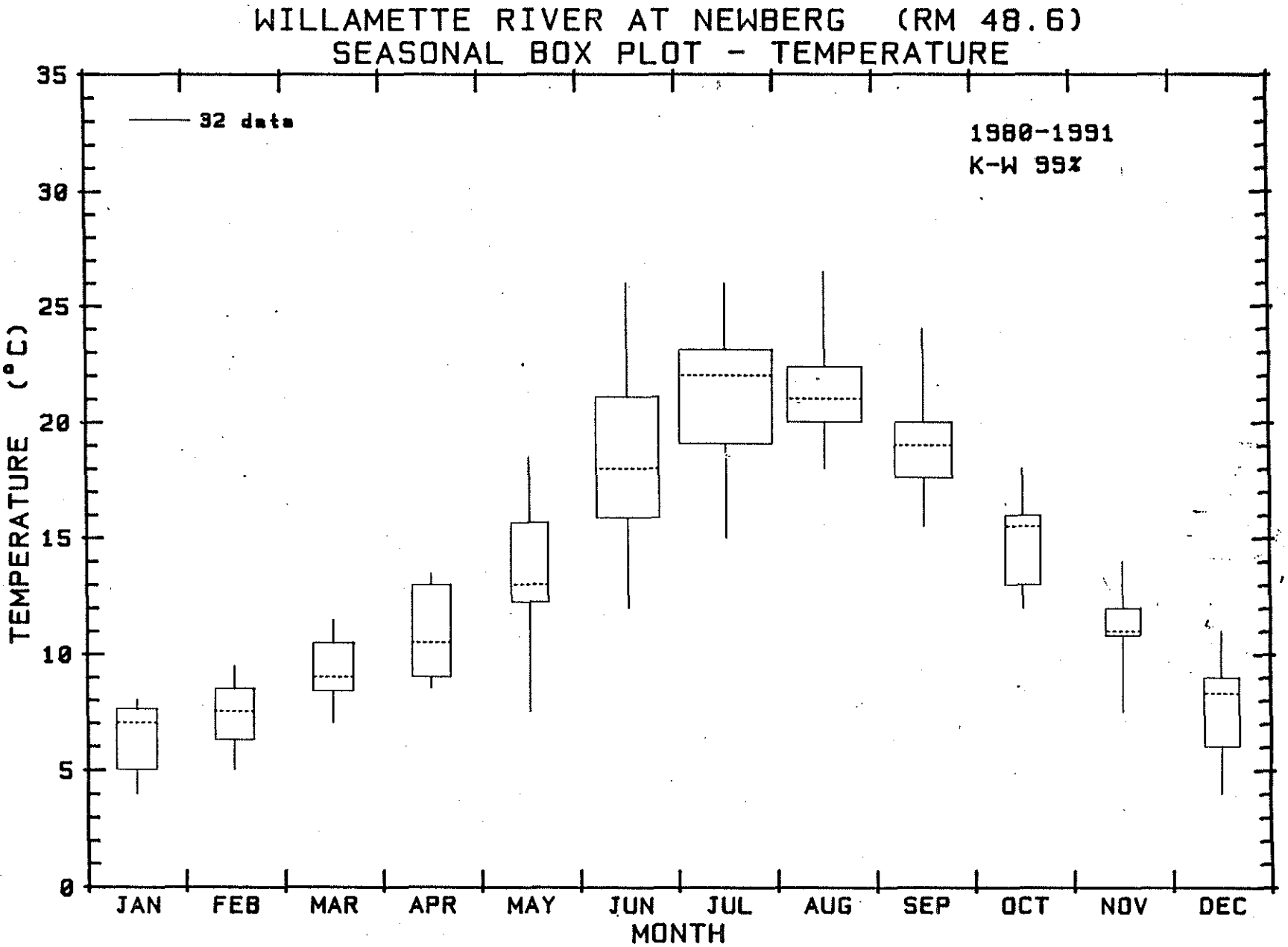
Attachments


WILLAMETTE RIVER BELOW NEWBERG STP
DISSOLVED OXYGEN MODEL OUTPUT - NEWBERG POOL TO MOUTH
◇ DO DEFICIT AT CURREN PERMITTED LOAD
* DO DEFICIT WITH PROPOSED MASS LOAD INCREASE
TWO SAMPLE t TEST (Equal Variances)
μ1
Δ = 2.125E-02
H
μ2
t = -0.2070
2xP = 0.8364
NOT Significant 80%
.0 .2 .4 .6 .8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6
DISSOLVED OXYGEN DEFICIT (mg/l O2)


WILLAMETTE RIVER AT NEWBERG (RM 48.6)
SEASONAL BOX PLOT - BOD
28 data
1980-1991
K-W 99%
BIOCHEMICAL OXYGEN DEMAND (mg/l BOD5)
0
1
2
3
4
5
6
7
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
MONTH


WILLAMETTE RIVER AT NEWBERG (RM 48.6)
SEASONAL BOX PLOT - DISSOLVED OXYGEN
32 data
1980-1991
K-W 99%
DISSOLVED OXYGEN (mg/l O2)
15
14
13
12
11
10
9
8
7
6
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
MONTH


WILLAMETTE RIVER AT NEWBERG (RM 48.6)
SEASONAL BOX PLOT - AMMONIA
92 data
1980-1991
K-W 99%
AMMONIA as N (mg/l NH3N)
.40
.35
.30
.25
.20
.15
.10
.05
.00
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
MONTH


WILLAMETTE RIVER AT NEWBERG (RM 48.6)
SEASONAL BOX PLOT - TEMPERATURE
32 data
1980-1991
K-W 99%
TEMPERATURE (°C)
0
5
10
15
20
25
30
35
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
MONTH

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

WATER QUALITY WASTE DISCHARGE PERMIT

Notice Issued: March 31, 1992
Comments Due: April 29, 1992

WHO IS THE APPLICANT:

City of Newberg
414 E. First St.
Newberg, OR 97132

WHAT IS PROPOSED:

The City of Newberg has filed an application for a National Pollutant Discharge Elimination System (NPDES) waste discharge permit for the new wastewater treatment facility. The application was made in accordance with the provisions of Oregon Administrative Rule (OAR) 340-45-030 and the Federal Water Pollution Control Act as amended, P.L. 95-217.

The City presently owns, operates, and maintains a wastewater treatment and disposal system permitted under NPDES permit number 3792-J issued January 30, 1984. A new wastewater treatment and disposal facility began operation in September 1987, for which this proposed NPDES permit is written. The new facility consists of an activated sludge/oxidation ditch process with discharge of treated, disinfected effluent from the treatment facility to the Willamette River at river mile 49.7.

The proposed NPDES permit establishes that the City is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system and discharge adequately treated domestic wastewaters to the Willamette River from the sewage treatment facility. The term of the proposed permit would be for a period not to exceed 5 years. The discharge from the sewage treatment facility to the Willamette River would not be allowed to violate Water Quality Standards outside the designated mixing zone as adopted in OAR 340-41-445.

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

11/1/86

FOR FURTHER INFORMATION:

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

WHAT ARE THE HIGHLIGHTS:

The Department proposes to modify the current permit effluent limits for Total Suspended Solids (TSS) during the wet weather season (November 1 - April 30), Biochemical Oxygen Demand (BOD), and Fecal Coliform bacteria. The Department is proposing to include Carbonaceous Biochemical Oxygen Demand (CBOD) limits; the new limits are considered to be equivalent to BOD limits, and may be substituted for BOD limits in accordance with OAR 340-41. The proposed mass load limits for TSS and CBOD were increased during the wet weather period and were based on the approved design average dry weather flow of the new facility. The recently adopted enterococci bacteria standard replaces the fecal coliform bacteria standard.

Two additional waste discharge limitations are proposed for Outfall 001. The proposed new limits are for a minimum removal efficiency for CBOD and TSS, and for a chlorine residual level in the effluent. The percent removal efficiency is intended to ensure that treatment efficiency remains as high as possible year-round. The Federal minimum secondary treatment requirements require 85 percent efficiency for CBOD and TSS (40CFR 133.102). The chlorine residual limit is intended to reduce possible chlorine toxicity at the discharge point. Under Schedule C of the proposed permit, the Department is also proposing a mixing zone study to determine if chlorine toxicity exists at the discharge point.

In addition to the discharge from Outfall 001, two additional emergency overflow points exist from the collection system. These discharge points are not identified in the current NPDES permit. One of the points discharges to Chehalem Creek, and the second overflow discharges to the Willamette River at river mile 50.3. The proposed permit identifies these Outfalls as 002 and 003, respectively. Although discharges are infrequent, the Department is proposing to have the City monitor the overflows for flow (duration and volume).

The proposed permit retains a formal industrial pretreatment program added in September 1987, and proposes toxics monitoring for the incoming wastewater, discharged effluent and sludge product. Based on Schedules B and E of the proposed permit, monitoring would be performed twice per year for the parameters of concern. This monitoring protects the biological processes of the treatment facility and beneficial uses of the final sludge product, and is used to determine the treatment facility removal efficiency for the pollutants.

Over the past few years, the NPDES permit program has focused increased attention towards ensuring that toxic pollutants are adequately controlled to protect water quality. The Department is requiring Newberg to conduct bioassays in accordance with EPA test methods. The Department will evaluate the results of the testing. If the results of the bioassay tests indicate toxicity, the City will be required to implement measures to eliminate the toxicity.

The proposed permit also requires the implementation of a sludge management plan. The Department is requiring Newberg to modify their sludge management plan to reflect the current beneficial uses of sludge.

WATER QUALITY:

Sampling conducted by the Department indicates that the beneficial uses of the Willamette River segment where the City's outfall location is (R.M. 49.7), are partially supported. The three closest sampling stations are located at the Wheatland Ferry (R.M. 71.9), Newberg (R.M. 48.6), and the Canby Ferry (R.M. 34.4).

The beneficial uses affected on an annual basis include aquatic life and fishing caused by 2,3,7,8 TCDD from industrial sources. Bacteria standards are exceeded some of the time from fall through spring and partially support the beneficial use of water contact; these standards are met during the critical June through September period, when human contact and recreational use of the river is at its highest.

COMPLIANCE HISTORY:

The City's new wastewater treatment facility has been able to substantially comply with the limits in the current permit.

WHO IS AFFECTED:

This permit affects residents of the City of Newberg who are or will be served by the City's sewage treatment plant. It also affects users of the Willamette River. The Department has determined that the proposed permit limitations will adequately protect beneficial uses of the Willamette River. These proposed determinations are tentative. A final determination will not be made until all comments received pursuant to this notice are received.

NEED FOR PERMIT:

This permit is required by the Federal Clean Water Act and OAR 340-45-015.

HOW TO COMMENT:

The application, proposed permit and related documents are available for review and copying between the hours of 8:00 a.m. and 5:00 p.m., weekdays in the Department's Water Quality Division, on the 5th floor of the Department's headquarters at the address below. For additional information you may also contact Judy Johndohl, Municipal Permits Writer, at 229-6896.

Written comments should be presented to DEQ by April 29, 1992, at the following address:

Department of Environmental Quality
Water Quality Division
811 S.W. Sixth Avenue
Portland, OR 97204

WHAT IS THE NEXT STEP:

DEQ will hold a public hearing:

April 30, 1992
12:00 p.m. (noon)
Newberg Community Center
Main Hall
502 East 2nd
Newberg, Oregon

The Environmental Quality Commission will review the proposed permit and comments received from the public at the June 2, 1992 meeting. The Commission will then vote to either approve or deny the mass load increase.

After the conclusion of the public participation period and the Commission meeting, the permit will be issued as proposed, issued with modifications, or denied, depending on whether any substantive issues are raised during the public participation process.

NEIL GOLDSCHMIDT
GOVERNOR

Department of Environmental Quality
WILLAMETTE VALLEY REGION
750 FRONT ST. NE, SUITE 120, SALEM, OR 97310 PHONE (503) 378-8240

April 15, 1988

Mr. Bert S. Teitzel, P.E.
Director of Public Works
City of Newberg
414 E. First Street
Newberg, OR 97132

RE: New Plant Certification Limits
WQ-File No. 102894
Yamhill County

Dear Mr. Teitzel:

The Department has reviewed your April 4, 1988, request for special discharge limits during the upcoming certification testing of Newberg's new sewage treatment plant.

As indicated to you in our previous phone conversations, this Department expects the new Newberg STP to produce 10/10 effluent continuously commencing May 1, 1988. Data submitted to this office to date, excluding a period in mid January 1988, indicate that the facility has the capability to achieve this expectation. The Department is including this as a requirement of the NPDES permit currently being drafted. With the anticipated summer 1988 low flows in the Willamette River, performance testing that would or could in any manner cause a violation of the summer dishcarge limits must be avoided.

The limits which you should include in planning your certification program are as follows:

Parameter	Average Effluent Concentrations Monthly	Weekly	Monthly[1] Average lb/day	Weekly[1] Average lb/day	Daily[1] Maximum lbs
a. May 1 October 31:					
(1) BOD	10 mg/l	15 mg/l	334	500	667
(2) TSS	10 mg/l	15 mg/l	334	500	667
(3) FC per 100 ml	200	400			
b. November 1 - April 30:					
(1) BOD	30 mg/l	45 mg/l	1001	1501	2002
(2) TSS	30 mb/l	45 mg/l	1001	1501	2002
(3) FC Per 100 ml	200	400			

G-1

Other Parameters (year-round)	Limitations
c. pH	Shall be within the range 6.0-9.0

1/ Based on average dry weather flow to the treatment facility equalling 4.0 mgd.

Should you have any questions in this matter, feel free to contact me.

Very truly yours,

F.A. Skirvin, P.E.
Sr. Environmental Engineer

FAS/sd
22/Newberg

cc: M. Halliburton, Water Quality Division, DEQ

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

REQUEST FOR EQC ACTION

Meeting Date: June 1, 1992
Agenda Item: H
Division: Water Quality
Section: IW & On-Site

SUBJECT:

Minor Change in Wastewater Permit Fee Schedule

PURPOSE:

It is proposed to revise the wastewater permit fee schedule in order to cover additional general permits proposed to be issued by the Department.

ACTION REQUESTED:

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

___ Authorize Rulemaking Hearing
_X_ Adopt Rules

Proposed Rules	Attachment A
Rulemaking Statements	Attachment B,C
Fiscal and Economic Impact Statement	Attachment D
Public Notice	Attachment E

___ 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
TDD (503) 229-6993

___ Approve Department Recommendation

___ Variance Request	Attachment ___
___ Exception to Rule	Attachment ___
___ Informational Report	Attachment ___
___ Other: (specify)	Attachment ___

DESCRIPTION OF REQUESTED ACTION:

In order to streamline the permitting process for some minor wastewater permits, the Department has issued general permits for certain categories of sources rather than issuing individual permits for each source. To date, the Department has issued general permits for 16 separate categories of sources.

The last time the permit fee schedule was revised was June 1991. At that time, a fee category was developed which included each of the general permits issued to date. However, there are no fee categories which cover general permits to be issued in the future. The intent of this rule change is to add a new "catch-all" category for general permits to be added in the future. In addition, some additional language will be added for additional fees for the general permit applications when plan review is required as part of the application evaluation or when a site assessment is necessary. This will prevent the need to revise these regulations every time a new general permit is issued. A single category will be made in the annual compliance determination fee schedule which will cover all general permits.

AUTHORITY/NEED FOR ACTION:

___	Required by Statute: _____	Attachment ___
	Enactment Date: _____	
_X_	Statutory Authority: _____	Attachment B
___	Pursuant to Rule: _____	Attachment ___
___	Pursuant to Federal Law/Rule: _____	Attachment ___
___	Other:	Attachment ___

___ Time Constraints: Revised fee schedule must be effect prior to receiving applications for any new General Permits.

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 ___

Because of the minor nature of this fee schedule modification, it was thought unnecessary to use an advisory committee. Therefore, the only public input opportunity was through the public hearing process. Since new categories of general permits may include some subsurface disposal systems, additional fees for site assessments were added.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

There is an advantage to issuing general permits for the Department and the public. It reduces significantly the resources necessary to write permits for a number of minor sources. Along with that savings in Department resources, there is a quicker response time on permit applications. The regulated community are generally in favor of the general permit process.

Although the public notice for hearing had quite widespread distribution, no one came to the hearing on the proposed changes and no written comments were received.

PROGRAM CONSIDERATIONS:

It is important for the program to continue to develop general permits where appropriate. The process for implementing new general permit fees can be streamlined by establishing an additional category to the fee schedule which will cover any general permit not specifically identified within the schedule.

The current permit processing fees for general permits range from $50 to $150, depending upon the difficulty of the application review. Since future categories of sources to be considered for general permits will likely be of the more difficult variety, the fee for the future categories of general permits has been recommended to be $150.

Until now, most of the general permits issued required very little, if any, plan review or site assessment. As the list of categories of sources which might qualify for a general permit is expanded, it is obvious that there will be additional Department costs associated with evaluating

permit applications. For this reason, some additional fees for plan review and site assessment have been added, which were not necessary until now. There is usually more staff time involved in the review of plans than there is in the review of a general permit application. The fees for the plan review is recommended to be $200. When the draft rules were put on public notice, the site assessment fees were proposed to be the same as currently promulgated in the On-Site sewage rules. Further staff comments have caused us to reconsider that proposal, because of the complexity of the current on-site fees. Therefore, the final rules establish a flat fee of $500 for a site assessment.

When developing general permits for new categories of sources, technical advisory committees will be used where appropriate. The fee schedule as it relates to any particular general permit will enter into those discussions. For example, the Department is currently evaluating a general permit for vehicle washing operations. Input from selected members of the regulated community will be solicited prior to distributing the public notice.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. The Department considered adding only those categories for general permits which have been issued or currently proposed to be issued. That would require revising the fee schedule through rule change every time a new general permit is issued.

2. A second alternative would be to change the fee schedule so that only one fee applied to all general permits. That way, the same fee would be required of all existing and all new general permits. Since some categories of general permits require a more extensive review and evaluation than others, a varying fee schedule better addresses required staff effort.

3. A third alternative would be to have a separate schedule for all new general permit categories not already specifically identified in the fee schedule. In addition, to account for the additional staff effort associated with required plan review or required site evaluation, provisions for these additional fees, when appropriate, would be added to the schedule. This is the alternative selected.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

It is recommended that the Commission adopt the revised fee schedule as proposed. It will allow the Department to continue to issue general permits where appropriate without being delayed by rule making in each instance. It will also allow the Department to cover some of the agency costs associated with preliminary plan review and site assessment when they are a necessary part of the general permit application review process.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

This fee schedule modification is consistent with past practice. It does not conflict with agency or legislative policy.

ISSUES FOR COMMISSION TO RESOLVE:

The Department believes that there are no issues for the Commission to resolve in adoption or this minor permit fee schedule modification.

INTENDED FOLLOWUP ACTIONS:

As soon as the fees have been adopted, they will be filed with the Secretary of State and implemented.

Approved:

Section: _____

Division: Lydia Taylor

Director: Full Hans

Report Prepared By: Charles K. Ashbaker

Phone: 229-5263 Ex 251

Date Prepared: April 17, 1992

CKA:crw
IW\WC10\WC10156.5
May 13, 1992

PERMIT FEE SCHEDULE

WASTEWATER DISPOSAL PERMITS

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.

340-45-075

(1) **Filing Fee.** Unless waived by this rule, a filing fee of $50 shall accompany any application for issuance, renewal, modification, or transfer of an NPDES permit or WPCF permit, including registration for a General Permit pursuant to OAR 340-45-033 and request for a Special Permit pursuant to OAR 340-14-050. This fee is non-refundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed. The following filing fees are waived:

(a) Small gold mining suction dredges with an intake hose diameter of 4 inches or less.

(b) Small gold mining operations which qualify for General Permit 600, and which can process no more than 5 cubic yards of material per day.

(2) **Application Processing Fee.** An application processing fee shall be submitted with each application. The amount of the fee shall depend on the type of facility and the required action as follows:

(a) New Applications:

(A)	Major industries[1]	$20,000
(B)	Minor industries	$ 4,000
(C)	Major domestic[2]	$ 1,500
(D)	Minor domestic	$ 600
(E)	Agricultural	$ 4,000

(b) Permit Renewals (including request for effluent limit modification):

(A)	Major industries[1]	$10,000
(B)	Minor industries	$ 2,000
(C)	Major domestic[2]	$ 750
(D)	Minor domestic	$ 300
(E)	Agricultural	$ 2,000

(c) Permit Renewals (without request for effluent limit modification):

(A)	Major industries[1]	$ 5,000
(B)	Minor industries	$ 750
(C)	Major domestic[2]	$ 500
(D)	Minor domestic	$ 200
(E)	Agricultural	$ 750

(d) Permit Modifications (involving increase in effluent limitations):

(A)	Major industries[1]	$10,000
(B)	Minor industries	$ 2,000
(C)	Major domestic[2]	$ 750
(D)	Minor domestic	$ 300
(E)	Agricultural	$ 2,000

(e) Permit Modifications (not involving an increase in effluent limits): All categories . . . . . $ 500

(f) Special Permits issued pursuant to OAR 340-14-050 . . . . . $ 250

(g) New General Permits, by permit number:

(A)	100, 400, 500, 600 (over 1500 cubic yards per year), 900, 1000	$ 50
(B)	200, 300, 1300, 1400, 1500, 1600.	$ 100
(C)	1200	$ 150
(D)	**Others not elsewhere specified**	**$ 150**

(E) In addition, the following fees shall be added to categories (A) through (D) when the listed activities are a required part of the application review process:

(i)	**Disposal system plan review**	**$ 200**
(ii)	**Site inspection and evaluation**	**$ 500**

(3) Annual Compliance Determination Fee Schedule:

(a) Domestic Waste Sources -- Initial and Annual Fee is based on Dry Weather Design Flow, Type of Facility and Applicable Special Fees as follows:

		Fees
(A_1)	Sewage Disposal - 50 MGD or more	$20,860

(A_2)	Sewage Disposal - At least 25 MGD but less than 50 MGD	$14,110
(A_3)	Sewage Disposal - At least 10 MGD but less than 50 MGD	$ 6,610
(B_a)	Sewage Disposal - At least 5 MGD but less than 10 MGD	$ 5,010
(B_b)	Sewage Disposal - At least 5 MGD but less than 10 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	$ 5,010
(C_{1a})	Sewage Disposal - At least 2 MGD but less than 5 MGD	$ 3,285
(A_1)	Sewage Disposal - 50 MGD or more	$20,860
($C1_b$)	Sewage Disposal - At least 2 MGD but less than 5 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	$ 935
(C_{2a})	Sewage Disposal - At least 1 MGD but less than 2 MGD	$ 2,210
(C_{2b})	Sewage Disposal - At least 1 MGD but less than 2 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	$ 845
(D_a)	Sewage Disposal - Less than 1 MGD, and not otherwise categorized under Categories E, F, or G .	$ 755
(D_b)	Sewage Disposal - Less than 1 MGD - Systems where treatment occurs in lagoons that discharge to surface waters which are not otherwise categorized under Categories E, F, or G	$ 450
(E)	Sewage Disposal - Systems where treatment is limited to lagoons which do not discharge to surface waters	$ 250
(F)	Sewage Disposal - Systems larger than 20,000 gallons per day which dispose of treated effluent via subsurface means only	$ 260
(G)	Sewage Disposal - Systems less than 20,000 gallons per day which dispose of treated effluent via subsurface means only and other systems required by OAR 340, Division 71 to have a Water Pollution Control Facilities (WPCF) permit	$ 185
(H_1)	Sources determined by the Department to administer a pretreatment program pursuant to federal pretreatment program regulations (40 CFR, Part 403; January 28, 1981) shall pay an additional $1,000 per year plus $335 for each significant industrial user specified in their annual report for the previous year.	

(H_2) In addition to applicable fees specified above, special Annual Compliance Fees for Tualatin Basin Pollution Abatement Activities will be applied to the following permittees until Fiscal Year 1998:

Unified Sewerage Agency - Durham	$26,720
Unified Sewerage Agency - Rock Creek	$22,995
Unified Sewerage Agency - Forest Grove	$ 5,450
Unified Sewerage Agency - Hillsboro	$ 4,240
Unified Sewerage Agency - Banks	$ 185
City of Portland - Tryon Creek	$ 910

(b) Industrial, Commercial and Agricultural Sources (Source and Initial and Annual Fee):

(For multiple sources on one application select only the one with highest fee)

(A) Major pulp, paper, paperboard, hardboard, and other fiber pulping industry	$ 6,000
(B) Major sugar beet processing, potato and other vegetable processing, and fruit processing industry	$ 6,000
(C) Seafood Processing Industry:	
(i) Bottom fish, crab, and/or oyster processing	$ 675
(ii) Shrimp processing	$ 675
(iii) Salmon and/or tuna processing	$ 1,200
(D) Electroplating industry (excludes facilities which do anodizing only):	
(i) Rectifier output capacity of 15,000 Amps or more	$ 6,000
(ii) Rectifier output capacity of less than 15,000 Amps but more than 5000 Amps	$ 3,000
(E) Primary Aluminum Smelting	$ 6,000
(F) Primary smelting and/or refining of non-ferrous metals utilizing sand chlorination separation facilities	$ 6,000
(G) Primary smelting and/or refining of ferrous and non-ferrous metals not elsewhere classified above	$ 3,000

(H)	Alkalies, chlorine, pesticide, or fertilizer manufacturing with discharge of process waste waters	$ 6,000
(I)	Petroleum refineries with a capacity in excess of 15,000 barrels per day discharging process waste water	$ 6,000
(J)	Cooling water discharges in excess of 20,000 BTU/sec	$ 3,000
(K)	Milk products processing industry which processes in excess of 250,000 pounds of milk per day	$ 6,000
(L)	Major mining operations (over 500,000 cubic yards per year)	$ 6,000
(M)	Minor mining and/or processing operations:	
	(i) Medium (100,000 to 500,000 cubic yards per year) mechanical processing	$ 2,000
	(ii) Medium using froth flotation	$ 3,000
	(iii) Medium using chemical leaching	$ 4,000
	(iv) Small (less than 100,000 cubic yards per year) mechanical processing	$ 500
	(v) Small using froth flotation	$ 1,000
	(vi) Small using chemical leaching	$ 2,000
(N)	All facilities not elsewhere classified with disposal of process waste water	$ 1,200
(O)	All facilities not elsewhere classified which dispose of non-process waste waters (i.e., small cooling water discharges, boiler blowdown, filter backwash, log ponds, etc,)	$ 750
(P)	Dairies and other confined feeding operations on individual permits	$ 450
(Q)	All facilities which dispose of waste waters only by evaporation from watertight ponds or basins	$ 450
(R)	General permits [~~100 J, 200 J, 400 J, 500 J, 1000~~	$ 100

~~[(S) General permit 300 J . . . . . $ 100~~

~~(T) General permits 900 J, 1200 J, 1300 J, 1400, 1500 J, 1600 . . . . . $ 100]~~

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1 *Major Industries Qualifying Factors:*

-1- Discharges large BOD loads; or
-2- Is a large metals facility; or
-3- Has significant toxic discharges; or
-4- Has a treatment system which, if not operated properly, will have a significant adverse impact on the receiving stream; or
-5- Any other industry which the Department determines needs special regulatory control.

2 *Major Domestic Qualifying Factors:*

-1- Serving more than 10,000 people; or

-2- Serving industries which can have a significant impact on the treatment system.

Attachment B

STATEMENT OF NEED FOR RULEMAKING

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

(1) Legal Authority

Oregon Revised Statutes (ORS) 468.065 authorizes the Department to adopt permit fees by rule. The fees are to 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.

(2) Need for the Rule

The current permit fee schedule, which was adopted pursuant to ORS 468.065, covers only those general permits which the Department had issued up to the time the rules were last modified in June of 1991. Therefore, fees could not be charged for new general permits without modifying the rules. It is proposed to modify the fee schedule to add a category for new general permits not already listed and to add provisions for charging fees for plan review and site assessments which are necessry as part of the application review process.

(3) Principal Documents Relied Upon in this Rulemaking

Oregon Revised Statutes 468.065 **Issuance of permits; content; fees; use.**

Oregon Administrative Rules 340-45-070 **Permit Fees**

Oregon Administrative Rules 340-45-075 **Permit Fee Schedule**

These documents are available for review during normal business hours at the Department's office, 811 SW Sixth, Portland, Oregon.

cka/Rule.B

Attachment C

DEQ LAND USE EVALUATION STATEMENT
FOR RULEMAKING

1. **Explain the purpose of the proposed rules.**

   This is a minor modification to the Water Quality Permit Fee Schedule in OAR 340-45-075. The modification adds a "catch-all" fee category for general permits to be added in the future. This will eliminate the necessity for revising the fee schedule each time a new general permit is issued.

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

2a. **If yes, identify existing program/rule/activity.**

   Issuance of NPDES and WPCF wastewater disposal permits.

2b. **If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?** yes__X__no_____ **(if no, explain)**_____

2c. **If no, apply criteria 1. and 2. from the other side of this form and from Section III Subsection 2 of the SAC program document to the proposed rules. In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.**

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

WATER QUALITY — Division

Intergovernmental Coor.

2-27-92 — Date

Attachment D

FISCAL AND ECONOMIC IMPACT

1. Other State Agencies:

The proposed fee schedule changes may benefit other state agencies which have cause to apply for new general permits not already covered in the current fee schedule. If a general permit is available, it will significantly reduce permit processing time and associated permit processing fees.

2. Municipalities such as service districts, cities and counties.

If the Department was to issue additional general permits for systems operated by one these municipal entities, the fee changes proposed would directly benefit them. The benefits of a general permit are reduced permit processing time and reduced fees.

3. Small business.

This change to the fee schedule will add fees which will affect general permits issued by the Department at some future date. Any small business with a wastewater discharge which could be regulated by a new general permit issued by the Department, will be benefited by these fee changes. Since the permit processing time and the fees associated with general permits are much less than those associated with individual permits, it is of great benefit to small business.

4. All Businesses.

All businesses with a discharge of wastewater which could be covered by a new general permit, will be benefited. Generally there is an advantage to any business to be covered by a general permit. Changing the rule to add a category of fees to cover all general permits not already covered, will allow the Department to continue to develop general permits without the need to add to the permit fee schedule in each instance.

cka/RULE.D

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

WATER QUALITY PERMIT FEE MODIFICATION

Notice Issued: March 9, 1992
Comments Due: April 17, 1992

WHAT IS PROPOSED:

The Department of Environmental Quality (DEQ) is proposing to add an additional fee category to the wastewater permit fee schedule for general permits, found in Oregon Administrative Rules (OAR) 340-45-075. The added category will provide a permit processing fee for general permits not specifically addressed already in the fee schedule. In addition, in order to keep the fee in the new category to a minimum, some additional provisions are being added which provide an additional fee when plan review or site evaluation is necessary as part of the application review process. By having these separate provisions, the DEQ will not need to have these costs reflected in the new fee category. That way, only those applicants which require plan review or a site evaluation will be required to pay for that service.

WHO IS AFFECTED:

In order to increase the efficiency of the wastewater permitting process, the DEQ has found some advantage to issuing general permit for certain minor source categories. Since the costs to the DEQ are less in this permitting process, the permit fee costs to the applicant are also less. The current fee schedule lists 13 separate general permits for which permit processing fees have been established. The DEQ is considering other categories of minor sources which could also benefit from the issuance of general permits. However, there is currently no category in the fee schedule to address future general permits. So that the DEQ does not have to change the fee schedule every time a new general permit is issued, a new "catch-all" category is proposed which includes all general permits not already listed. Since some of the new general permits may require additional DEQ costs, such as those associated with plan review or site evaluation, the proposed modification also has a provision for adding fees for those activities where appropriate. Any facility which could be regulated by a new general permit will be affected by this fee schedule expansion.

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.

NEED FOR RULE CHANGE:

The DEQ is continually looking for categories of sources which could be adequately regulated by general permit. Unless a "catch-all" category of permit processing fee is included in the fee schedule, the rules will need to revised each time a new general permit is issued.

PROPOSED RULE CHANGES:

In OAR 340-45-075(2)(g) two new categories will be added in the permit processing fees for new general permits, as follows:

(D) Others not elsewhere specified $150

(E) In addition, the following fees shall be added to categories (A) through (D) when the listed activities are a required part of the application review process:

(i) Disposal system plan review $200

(ii) For on-site sewage disposal systems, the fees established in OAR 340-71-140 shall be added.

All categories in 340-45-075(3)(b)(R) through (S), will be combined in (R) as follows:

(R) General Permits $100

WHERE TO FIND OTHER DOCUMENTS:

Copies of the revised fee schedule, applicable DEQ rules, and enabling statute are available upon request at the DEQ office, 811 S.W. Sixth, Portland, OR 97204, 5th floor. They may also be viewed at each of the five DEQ Regional Offices, as attached.

PUBLIC PARTICIPATION:

In order to provide an opportunity for public testimony and suggestions regarding the proposed fee schedule changes, a public hearing will be held at the time and place listed below.

April 15, 1992
9:00am
Department of Environmental Quality
811 SW Sixth Avenue, Portland, OR
Conference Room 3A

The Department solicits comments on this proposal. If you are unable to attend the public hearing, you may send in written comments to:

Kirstin Hierholzer
Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, OR 97204

In order to be considered, written comments must be submitted by 5:00pm April 17, 1992.

For further information you may call: Jerry Turnbaugh 229-5374

ATTACHMENTS:
Statement of Need for Rulemaking
Fiscal and Economic Impact
Location of Regional Offices

IW\WC9\WC9703

State of Oregon
Department of Environmental Quality Memorandum

Date: May 26, 1992

To: Environmental Quality Commission

From: Noam Stampfer, Finance Section Manager

Subject: Addendum to Agenda Item B (Approval of Tax Credit Applications).

The Department of Environmental Quality recommends that the attached Tax Relief Application Review Report, for Application No. T-3724, be added to Agenda Item B (Approval of Tax Credit Applications).

The facility is a wastewater treatment system consisting of a wastewater surge/storage pond, a closed pattern tile drainage system under the wastewater disposal area, and associated plumbing system. The Claimed facility cost is $73,480.05 of which 100% is allocable to pollution control.

Application No.T-3724

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

National Frozen Foods Corporation
P.O. Box 944
Albany, OR 97321

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

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

2. Description of Facility

Wastewater treatment facility consisting of a wastewater surge/storage pond, a closed pattern tile drainage system under the wastewater disposal area, and associated plumbing system.

Claimed Facility Cost: $73,480.05
(Accountant's Certification was provided).

3. Procedural Requirements

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

The facility met statutory deadline in that construction of the facility was substantially completed on October 11, 1991 and the application for certification was found to be complete on May 26, 1992, within 2 years of substantial completion of the facility.

4. Evaluation of Application

a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department, to control water pollution. This control is accomplished by the use of treatment works for industrial waste as defined in ORS 468B.005.

On September 13, 1990, the Department required National Frozen Foods Corporation (NFFC) to correct ponding and nuisance conditions in its wastewater disposal site. The Water Pollution Control Facility (WPCF) Permit No. 100400 issued to the company required that sound irrigation practices be followed to prevent ponding and the creation of odors. NFFC submitted a proposal to improve the irrigation system and the disposal field. Prior to the improvements, wastewater was piped directly from the food

processing plant to the irrigation disposal area. Saturation of the soil, surface ponding and odors occurred at times. To correct this, NFFC installed a surge/storage pond between the plant and the irrigation site, and a tile drainage system under the irrigation disposal site with piping to return the collected drainage to the surge/storage pond.

This facility allows the company to control application rates to the field, prevent ponding and odor generation, eliminate soil saturation, and dispose of the wastewater by irrigation /evaporation.

Since the construction of the claimed facility the company has been in compliance with the conditions of its WPCF 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 for this facility because there is no income derived from the wastewater treatment facility.

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

Alternative methods considered include hookup to the City of Albany sewer system and purchase of additional disposal fields. The claimed facility was the least cost feasible alternative.

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

There are no savings from the facility. The cost of maintaining and operating the facility is $300 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 these factors is 100%.

5. Summation

a. The facility was constructed in accordance with all regulatory deadlines.

b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to control water pollution and accomplishes this purpose by redesign to treat industrial waste as defined in ORS 468B.005.

c. The facility complies with DEQ statutes and rules and permit conditions.

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of $73,480.05 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-3724.

RCDulay:crw
IW\WC10\WC10220
(503) 229-5876
5-27-92

Application No.T-3724

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

National Frozen Foods Corporation
P.O. Box 944
Albany, OR 97321

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

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Claimed Facility Cost: $73,480.05
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The facility met statutory deadline in that construction of the facility was substantially completed on October 11, 1991 and the application for certification was found to be complete on May 26, 1992, within 2 years of substantial completion of the facility.

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a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department, to control water pollution. This control is accomplished by the use of treatment works for industrial waste as defined in ORS 468B.005.

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processing plant to the irrigation disposal area. Saturation of the soil, surface ponding and odors occurred at times. To correct this, NFFC installed a surge/storage pond between the plant and the irrigation site, and a tile drainage system under the irrigation disposal site with piping to return the collected drainage to the surge/storage pond.

This facility allows the company to control application rates to the field, prevent ponding and odor generation, eliminate soil saturation, and dispose of the wastewater by irrigation /evaporation.

Since the construction of the claimed facility the company has been in compliance with the conditions of its WPCF 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 for this facility because there is no income derived from the wastewater treatment facility.

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

Alternative methods considered include hookup to the City of Albany sewer system and purchase of additional disposal fields. The claimed facility was the least cost feasible alternative.

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

There are no savings from the facility. The cost of maintaining and operating the facility is $300 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 these factors is 100%.

5. Summation

a. The facility was constructed in accordance with all regulatory deadlines.

b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to control water pollution and accomplishes this purpose by redesign to treat industrial waste as defined in ORS 468B.005.

c. The facility complies with DEQ statutes and rules and permit conditions.

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of $73,480.05 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-3724.

RCDulay:crw
IW\WC10\WC10220
(503) 229-5876
5-27-92

State of Oregon
Department of Environmental Quality Memorandum

Date: May 26, 1992

To: Environmental Quality Commission

From: Noam Stampfer, Finance Section Manager

Subject: Addendum to Agenda Item B (Approval of Tax Credit Applications).

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The facility is a wastewater treatment system consisting of a wastewater surge/storage pond, a closed pattern tile drainage system under the wastewater disposal area, and associated plumbing system. The Claimed facility cost is $73,480.05 of which 100% is allocable to pollution control.

MESSAGE CONFIRMATION MAY-27-'92 WED 16:37

TERM ID: D.E.Q. P-9999

TEL NO: 503 229 6124

NO.	DATE	ST. TIME	TOTAL TIME	ID	DEPT CODE	OK	NG
721	05-27	16:34	00°03'13	5035042129	91	05	00

C. Whipple

MESSAGE CONFIRMATION MAY-27-'92 WED 16:32

TERM ID: D.E.Q. P-9999

T NO: 3 229 6124

NO.	DATE	ST. TIME	TOTAL TIME	ID	DEPT CODE	OK	NG
720	05-27	16:29	00°03'00	2763148	91	05	00

H. Lorenzen

MESSAGE CONFIRMATION MAY-27-'92 WED 16:28

TERM ID: D.E.Q. P-9999

TEL NO: 503 229 6124

NO.	DATE	ST. TIME	TOTAL TIME	ID	DEPT CODE	OK	NG
719	05-27	16:24	00°03'22	503 737 1579	91	05	00

E. Castle

MESSAGE CONFIRMATION MAY-27-'92 WED 16:23

TERM ID: D.E.Q. P-9999

TEL NO: 503 229 6124

NO.	DATE	ST. TIME	TOTAL TIME	ID	DEPT CODE	OK	NG
718	05-27	16:20	00°03'17	503 464 2299	91	05	00

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

FAX Transmittal Memorandum

No. of Pages: 5
Date: May 27, 1992

To:	Environmental Quality Commission Members	**From:**	Noam Stampfer Dept. of Environmental Quality 811 S. W. 6th Avenue Portland, OR 97204
Phone:		**Phone:**	229-5355
FAX:		**FAX:**	(503) 229-6124

Message:

The director requested that we include the attached Tax Credit Application with the June 1st report to accommodate a reasonable request on the part of the applicant, whose tax year ends May 31st.

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

REQUEST FOR EQC ACTION

Meeting Date: June 1, 1992
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 ___

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

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993

Tax Credit Application Review Reports:

TC-2923 Newberg Garbage Service	Solid waste recycling equipment.
TC-3705 Hillsboro Auto Wrecking	RGF Ultrasorb water recycling system.
TC-3758 Whitman's Towing & Crane Service	Automobile air conditioner coolent recycling machine.
TC-3759 Fuller's Automotive	Automobile air conditioner coolent recycling machine.
TC-3761 Rush Automotive	Automobile air conditioner coolent recycling machine.
TC-3771 Bauer Enterprises	Automobile air conditioner coolent recycling machine.
TC-3773 The Autosmith	Automobile air conditioner coolent recycling machine.
TC-3780 Don and Laura Christensen	Grass seed straw storage shed.

DESCRIPTION OF REQUESTED ACTION:

Issue tax credit certificates for pollution control facilities.

AUTHORITY/NEED FOR ACTION:

_X_ Required by Statute: ORS 468.150 - .190 Attachment ___
Enactment Date: _____
___ Statutory Authority: _____ Attachment ___
_X_ Pursuant to Rule: OAR 340 Division 16 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: (list)	Attachment ___
___ Other Related Reports/Rules/Statutes:	Attachment ___
___ Supplemental Background Information	Attachment ___

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

None.

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 the above identified tax credit applications which includes fieldburning related applications processed and recommended by the Department of Agriculture.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Yes. Note: Proposed June 1, 1992 pollution tax credit totals:

	Certified Costs*	# of Certificates
Air Quality		
CFC - AQ	$15,156.60	5
Field Burning	28,039.00	1
Hazardous Waste		
Noise		
Plastics		
Solid Waste	47,217.25	1
Underground Storage Tanks		
Water Quality	21,960.00	1
Total	$112,372.85	8

1992 Calendar Year Totals through April 30, 1992

	Certified Costs*	# of Certificates
Air Quality	$217,292.00	1
CFC - AQ	87,605.00	35
Field Burning	511,075.00	11
Hazardous Waste	10,119,299.00	1
Noise	0.00	0
Plastics	24,648.00	2
Solid Waste	18,922.00	1
Underground Storage Tanks	393,775.00	11
Water Quality	156,704.00	6
Total	$11,529,320.00	68

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

INTENDED FOLLOWUP ACTIONS:

Notify applicants of Environmental Quality Commission actions.

Approved:

Section: _____

Division: _____

Director: _____

Report Prepared By: Noam R. Stampfer

Phone: 229-5355

Date Prepared: May 5, 1992

NRS:nrs
tcjune.604
May 5, 1992

Application No. T-2923

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Marvin Schneider
Newberg Garbage Service
PO Box 990
Newberg, OR 97132

The applicant owns and operates a franchised garbage collection and recycling facility in Newberg, Oregon.

Application was made for tax credit for a solid waste recycling facility.

2. Description of Facility

The claimed equipment and devices are utilized for expansion of commercial, residential and school recycling activities. The equipment and devices described in the application are:

o	One ton truck with electric tailgate	$17,136.51
o	Site preparation and concrete work for shipping area	6,615.76
o	Bags and stands, buckets, drop boxes, and material identification signs	28,464.97
		$52,217.24
	Salvage value	- 5,000.00
		$47,217.24

Claimed Facility Cost: $47,217.24
(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:

Installation of the facility was substantially completed on May 1, 1990, and placed into operation on May 1, 1990. The application for certification was submitted to the Department on August 13, 1991, and the application for final certification was found to be complete on April 7, 1992, 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 solid waste through recycling.

This reduction is accomplished by the use of a material recovery process.

The applicant states that the larger truck, recycling containers and expanded shipping area were necessary because of increased recycling participation rates, and the public's demand for more recycling opportunities. Door-to-door surveys in Newberg indicate 85% of the citizens participate to varying degrees in the recycling program.

b. Eligible Cost Findings

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

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

This factor is applicable because the entire purpose of the truck, shipping area and recycling containers/signs is to collect and sort recyclable materials such as glass, tin, newspapers and office paper.

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

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

The applicant states that for the first 5 years of operation, there will be a negative cash flow. This results because the facilities' operating cost exceeds estimated annual income from the sale of the recycled materials. The applicant is able to absorb the cost because his franchised garbage route in Newberg currently subsidizes the recycling operation.

Using Table 1 of OAR 340-60-030, for a life of 8 years, the percent return on investment is zero. As a result, the percent allocable would be 100%.

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

The applicant listed no other alternatives for providing the same pollution control objective. The applicant said the method they chose was the most efficient and cost effective method for collecting the material.

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

There are no savings from operating the facility. The cost of maintaining and operating the facilities are $66,500 annually. The income from this facility is approximately $53,836 annually and has been included in the ROI 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, 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 population.

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 reduce a substantial quantity of solid waste through recycling.

This reduction is accomplished by the use of a material recovery process.

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 $47,217.24 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2923.

JM:b
RECY\RPT\YB11703.51
(503) 229-5479
April 22, 1992

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

John K. Cordrey and Thomas P. Cordrey
dba Hillsboro Auto Wrecking
2845 N.W. Glencoe Road
Hillsboro, Oregon 97124

The applicants own and operate an automobile dismantling business in Hillsboro, Oregon.

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

2. Description of Facility

The water pollution facility consists of an RGF Ultrasorb wash-water recycling system. Mechanical parts are pressure washed to remove oil, grease and solids. All wastewater is recaptured, treated and recycled by the Ultrasorb system. Solids are separated and disposed of through approved solid waste handlers. Oil and grease are removed from the wastewater and are recycled through commercial recyclers.

Claimed Facility Cost: $ 21,960.00
(Accountant's Certification was provided).

3. Procedural Requirements

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

The facility met statutory deadline in that construction of the facility was substantially completed in April, 1991, and the application for certification was found to be complete on April 8, 1992, within 2 years of substantial completion of the facility.

4. Evaluation of Application

a. The facility is eligible because the sole purpose of the facility is to prevent a substantial quantity of water pollution. This prevention is accomplished by the elimination of industrial waste as defined in ORS 468.700.

There is no history of noncompliance associated with this 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.

A portion of the waste products are converted into a usable commodity consisting of recycled washwater.

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

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

The estimated annual percent return on the investment in the facility is 0% since the facility does not generate any revenues nor does it reduce the operating costs of the business.

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

There are no known alternatives.

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

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

The washwater recycling system removes oil from the wastewater. Some of the oil generated on site was going to be used in a space heater, but the applicants have informed staff that they plan to eliminate the waste oil heater and replace it with a natural gas heater. The waste oil is removed by a recycler and applicant receives no payment for the recycled oil. The Department does not believe that the oil removed by the washwater recycling system affects the operating costs of the business.

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.

5. Summation

a. The facility was constructed in accordance with all regulatory deadlines.

b. The facility is eligible for tax credit certification in that the sole purpose of the facility is to prevent a substantial quantity of water pollution and accomplishes this purpose by the elimination of industrial waste as defined in ORS 468.700.

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 $21,960.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-3705.

George F. Davis:GFD
Cordrey.rep
(503) 229-5263
March 8, 1992

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Whitman's Towing & Crane Service, Inc.
235 S. Elm
Canby, OR 97103

The applicant owns and operates an automobile repair and towing service in Canby, Oregon.

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

2. Description of Facility

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

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

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

3. Procedural Requirements

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

The facility has met all statutory deadlines in that the facility was determined substantially completed on September 6, 1991, and the application for certification was filed on March 20, 1991, within two years of substantial completion.

4. Evaluation of Application

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

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

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

b. Eligible Cost Findings

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

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

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

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

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

Specifically, the applicant estimated the cost to applicant virgin coolant at $3.10/pound. The applicant estimated an annual coolant recovery rate of 30 pounds.

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

factors:

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

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

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

The applicant has identified no alternatives.

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

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

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

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

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

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

5. Summation

a. The facility was constructed in accordance with all regulatory deadlines.

b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce air pollution.

c. The facility complies with DEQ statutes and rules.

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of $3000.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3758.

Brian Fagot: BKF
(503) 229-5365
April 13, 1992

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Fuller's Automotive
2301 Jefferson
La Grande, OR 97850

The applicant owns and operates an auto repair garage in La Grande, Oregon.

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

2. Description of Facility

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

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

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

3. Procedural Requirements

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

The facility has met all statutory deadlines in that the facility was determined substantially completed on May 24, 1991 and the application for certification was filed on March 23, 1992, within two years of substantial completion.

4. Evaluation of Application

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

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

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

b. Eligible Cost Findings

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

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

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

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

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

Specifically, the applicant estimated the cost to applicant of virgin coolant at $4.16/pound. The applicant estimated an annual coolant recovery rate of 100 pounds.

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

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

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

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

The applicant has identified no alternatives.

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

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

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

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

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

The actual cost of the facility properly allocable to

pollution control as determined by using these factors is 100%.

5. Summation

a. The facility was constructed in accordance with all regulatory deadlines.

b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce air pollution.

c. The facility complies with DEQ statutes and rules.

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of $2495.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. TC-3759.

Brian Fagot:BKF
(503) 229-5365
April 13, 1992

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Rush Automotive
2740 NE Sandy
Portland, OR 97232

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

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

2. Description of Facility

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

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

Claimed Facility Cost: $3795.00
(Costs have been documented)

3. Procedural Requirements

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

The facility has met all statutory deadlines in that the facility was determined substantially completed on March 25, 1992, and the application for certification was filed on March 25,1992, within two years of substantial completion.

4. Evaluation of Application

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

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

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

b. Eligible Cost Findings

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

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

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

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

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

Specifically, the applicant estimated the cost to applicant of virgin coolant at $4.75/pound. The applicant estimated an annual coolant recovery rate of ninety pounds.

In estimating the operating costs for use of the recovery and recycling machine, the

Department developed a standardized methodology which considers the following factors:

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

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

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

The applicant has identified no alternatives.

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

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

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

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

There are no other factors to consider in establishing the actual cost of the facility

properly allocable to prevention, control or reduction of pollution.

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

5. Summation

a. The facility was constructed in accordance with all regulatory deadlines.

b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce air pollution.

c. The facility complies with DEQ statutes and rules.

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of $3795.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. 3761.

Brian Fagot: BKF
(503) 229-5365
April 10, 1992

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Bauer Enterprises Inc.
18150 S. Redland Rd.
Oregon City, OR 97045

The applicant owns and operates a general auto repair and service station in Oregon City, Oregon.

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

2. Description of Facility

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

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

Claimed Facility Cost: $3,371.68
(Costs have been documented)

3. Procedural Requirements

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

The facility has met all statutory deadlines in that the facility was determined substantially completed on June 10 , 1991, and the application for certification was filed on April 7, 1992, within two years of substantial completion.

4. Evaluation of Application

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

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

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

b. Eligible Cost Findings

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

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

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

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

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

Specifically, the applicant estimated the cost to applicant of virgin coolant at $3.73/pound. The applicant estimated an annual coolant recovery rate of 29 pounds.

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

factors:

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

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

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

The applicant has identified no alternatives.

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

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

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

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

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

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

5. Summation

a. The facility was constructed in accordance with all regulatory deadlines.

b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce air pollution.

c. The facility complies with DEQ statutes and rules.

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of $3371.68 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. 3371.

Brian Fagot:BKF
(503) 229-5365
April 13, 1992

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

The Autosmith
1499 Rouge River Hwy.
Grants Pass, OR 97527

The applicant owns and operates an auto repair garage in Grants Pass, Oregon.

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

2. Description of Facility

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

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

Claimed Facility Cost: $2494.92
(Costs have been documented)

3. Procedural Requirements

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

The facility has met all statutory deadlines in that the facility was determined substantially completed on June 26, 1991 and the application for certification was filed on April 8,1992, within two years of substantial completion.

4. Evaluation of Application

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

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

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

b. Eligible Cost Findings

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

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

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

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

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

Specifically, the applicant estimated the cost to applicant of virgin coolant at $5.00/pound. The applicant estimated an annual coolant recovery rate of 60 pounds.

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

methodology which considers the following factors:

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

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

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

The applicant has identified no alternatives.

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

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

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

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

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

reduction of pollution.

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

5. Summation

a. The facility was constructed in accordance with all regulatory deadlines.

b. The facility is eligible for tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department, to reduce air pollution.

c. The facility complies with DEQ statutes and rules.

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of $2494.92 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. 3773.

Brian Fagot:BKF
(503) 229-5365
April 13, 1992

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Don and Laura Christensen
17215 SW Christensen Road
McMinnville, OR 97128

The applicant owns and operates a grass seed farm operation in Yamhill County, 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 an addition to a previously certified grass-seed straw storage shed 124'x90'x22', located at 17215 SW Christensen Road, McMinnville, Oregon. The land and buildings are owned by the applicant.

Claimed facility cost: $28,039
(Accountant's Certification was provided.)

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

In any given year, the applicants have 1,300 to 1,500 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 insuring a more consistent, quality supply of straw. The applicant states that the storage building addition was built for the sole purpose of encouraging and enabling custom balers to bale off more acres knowing the storage is available. The applicant states that no revenue for the straw has been received from the custom balers and none is expected in the foreseeable future.

This storage space is an addition to an existing grass-seed straw storage shed completed on September 11, 1990 and certified (TC-3308) as a pollution control facility on March 11, 1991.

Applicants claim that this facility was constructed to provide storage for approximately 360 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 August 20, 1991. The application for final certification was found to be complete on April 27, 1992. The application was submitted within two years of substantial completion of the facility.

5. Evaluation of Application

a. The facility is eligible under ORS 468.150 because the facility is an approved alternative method for field sanitation and straw utilization and disposal that reduces a substantial quantity of air pollution. This reduction is accomplished by reduction of air contaminants, defined in ORS 468A.005; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f))A): "Facility, 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 applicants trade 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 under ORS 468.150 as an approved alternative method for field sanitation and straw utilization and disposal that reduces a substantial quantity of air pollution as defined in ORS 468A.005.

   c. The facility complies with DEQ statutes and rules.

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

7. Department of Agriculture Recommendation

   Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of $28,039, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-3780.

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

jb:kcTC3780
April 27, 1992

Oregon

ENVIRONMENTAL
QUALITY
COMMISSION

REQUEST FOR EQC ACTION

Meeting Date: June 1, 1992
Agenda Item: C
Division: Environmental Cleanup
Section: Program & Policy Dev.

SUBJECT:

Request adoption of amendments to existing environmental cleanup rules (OAR 340-122-010 to 340-122-110) and new rule sections on "Numerical Soil Cleanup Levels" and "Definitions" (340-122-045 and 046).

PURPOSE:

The amendments and proposed additional rules provide for numerical cleanup levels and a streamlined process for Potentially Responsible Parties (PRPs) to clean up hazardous substances at "simple" sites.

A common complaint of the current environmental cleanup rules is that too much time and money are expended on studying the problem rather than cleaning up. This complaint is especially true for the "simple" site (where only soil is contaminated, the source and extent of the contamination are known, the number of contaminants are few, and the adverse effects are known and readily controlled). It has been especially frustrating to PRPs when the "simple" site is the potential subject of a property transaction, and the deal falls through because the cleanup process takes too long. PRPs have stated they were ready, willing and able to clean up if they would have had standards and a streamlined process to follow.

PRPs correctly pointed out that cleanups are avoided rather than completed because the process is too cumbersome. The Department of Environmental Quality (DEQ) agreed with PRPs that a revised rule could result in more, better cleanups. However, the benefits of the proposed rule would not be limited to PRPs: The proposed rules would benefit the citizens of Oregon because more sites would be cleaned up with private dollars; the proposed

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

rules would benefit PRPs because they would have specific cleanup standards so resources (time and money) would be directed at cleanup rather than study; and the proposed rules benefit the Department because it would spend less time in detailed oversight of the cleanup.

With the Department providing specific numerical cleanup standards, the PRP will no longer be required to determine "background" or the "lowest feasible concentration" (the current cleanup standards) at a site. The amendments allow for a "focused" Remedial Investigation (RI) and direct selection of a remedial technology without a Feasibility Study (FS). All steps should expedite the cleanup process while protecting human 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

_X_ Adopt Rules

Proposed Rules	Attachment A
Rulemaking Statements	Attachment B
Fiscal and Economic Impact Statement	Attachment C
Land Use Evaluation Statement	Attachment C1
Public Notice	Attachment D

___ 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:

Adopt rules. Public hearings were held in January 1992 to receive public comment on the proposed rules. The Department has responded to those comments, met with the Environmental Cleanup Advisory Committee (ECAC) four additional times since the public hearings, and has amended the proposed rules in a manner consistent with the comments and ECAC's advice.

AUTHORITY/NEED FOR ACTION:

___	Required by Statute: _____	Attachment ___
	Enactment Date: _____	
X	Statutory Authority: ORS 465.400; 468.020	Attachment E
___	Pursuant to Rule: _____	Attachment ___
___	Pursuant to Federal Law/Rule: _____	Attachment ___
X	Other: Voluntary Cleanup Initiative Task Force (see time constraints)	Attachment ___
X	Time Constraints: (explain)	

There are no statutorily-imposed deadlines. The rule package is one result from the Voluntary Cleanup Initiative Task Force. The Task Force and the Department believe that more sites will be cleaned up more quickly if numerical standards are in place and the cleanup process is streamlined. It has been almost two years since the recommendation for rule changes were made, and the Department and the Environmental Cleanup Advisory Committee (ECAC) believe the rules should be adopted.

DEVELOPMENTAL BACKGROUND:

X	Advisory Committee Reports/Recommendations	Attachments F&R
X	Hearing Officer's Report/Recommendations	Attachment P
X	Response to Testimony/Comments	Attachment Q
X	Prior EQC Agenda Items: (list)	
	Risk Assessment Presentation	Attachment G
___	Other Related Reports/Rules/Statutes:	Attachment ___
X	Supplemental Background Information	
	Issue Papers (1 - 6)	Attachment H
	Land Use Evaluation Statement	see Attachment C1
	Table Development/Documentation	Attachment J
	Leaching Procedure/Documentation	Attachment K
	Background Determination	Attachment L
	Practical Quantitation Limit (PQL)	Attachment M
	DA Review (Prior to Public Comment)	Attachment N
	Model Development/Documentation	Attachment O

NOTE: Attachments G, H, J, K, L, M, N, O and the written testimony submitted at public hearings (part of Attachment Q) are contained in a separate package and are available upon request.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The amendments to the rule do not impose any additional regulatory burden or cost to the Potentially Responsible Party (PRP) whether the PRP is a small business, large business, local government or other state agency. The rules should result in financial and time savings: the proposed rules provide an optional set of standards and process for cleanups at "simple" sites so the PRP can opt for the most cost-effective approach.

The cleanup standards in the proposed rule were not adjusted on the basis of "economic feasibility" (less stringent standards being cheaper to meet). The standards were created on the basis of a specified level of protection under certain site scenarios (discussed below). The PRP retains the option to consider "economic feasibility" if the PRP "opts out" of the proposed rule and conducts the feasibility study to determine the "lowest feasible concentration" as provided in the current rules. The Department also retains the power to require the PRP to conduct the feasibility study if use of the proposed rule would be inappropriate (e.g. used at other than a "simple" site).

A number of significant public policy issues were raised in a series of Issue Papers at the beginning of this rulemaking (See Attachment H for Issue Papers and detailed discussions). This section of the report will list, briefly discuss, and present the Department's conclusions on the major issues:

1. Why change or augment the "background" standard for cleanups?

2. Are the proposed numerical standards protective?

3. Can "feasibility" in the existing rule be limited and can numerical standards in the proposed rule be flexible?

4. Who participates in the rulemaking and cleanup processes?

5. What are the technical underpinnings of the proposed rule?

6. Are "industrial area" cleanups appropriate under these rules?

Each of these broad issues contain several sub-issues. This section will present only broad-brush conclusions; the reader is directed to the various attachments (Attachments H, J, and O) for detailed discussions and technical documentation.

1. The Department is recommending that the existing "background" or "lowest feasible concentration" standards be augmented with numerical standards for "simple" sites. Under the existing rules too much time and money is spent on determining the "lowest feasible concentration." "Background" (which for any synthetic compound is zero) is often technically impossible to achieve so an inordinate amount of time is spent determining what is the "lowest feasible concentration." While this analysis is appropriate for complex sites, it is inappropriate for "simple" sites.

   If the PRP uses the proposed numerical standards for the "simple" sites, the PRP will have "fixed goalposts" which will reduce transaction costs. The PRP will have a certain number sooner so resources can be directed at cleanup rather than analysis. The proposed rule pre-calculates the "lowest feasible concentration" on the same technical basis (discussed below) as would be used in the existing rules. While the proposed cleanup levels depart from the "background" standard, they remain consistent with the "lowest feasible concentration" standard.

2. The Department is recommending the proposed cleanup standards as ones which protect human health and the environment. No single issue generated more controversy within ECAC than the standards of protection. The proposed rule used the following risk levels to derive cleanup standards: excess cancer risk not to exceed one in one million (1×10^{-6}) per contaminant; one in one hundred thousand (1×10^{-5}) per site; non-cancer risk not to exceed a hazard quotient or index of one ($H.I \leq 1$); lead levels not to exceed levels as determined by the biokinetic/uptake model.

   The Department recommended the 1×10^{-6} level because it is at the more protective (more conservative) end of the spectrum of the values used in other environmental cleanup activities. The EPA uses a range of 1×10^{-4} to 1×10^{-6} for its cleanups; the Department believed that "simple" sites should (and could) clean up to the 1×10^{-6} level.

Some ECAC members felt the 10^{-6} level was too stringent and this overly-stringent number would discourage cleanups as much as the "background" standard does. In some cases, these members noted, cleaning to this level was not technically possible or was below the natural background level. Other ECAC members felt the standard was too lenient because they believed all traces of contamination should be cleaned up.

Recognizing that setting the risk level is a political decision without an absolute correct scientific basis, the ECAC/Department compromise was to set the per contaminant cleanup level at 10^{-6}, but to allow a site risk no greater than 1×10^{-5}. This addressed concerns on both sides of the ECAC debate, but setting the "acceptable level of risk" level remains a significant policy issue for this rule and other rules based on risk assessment. (See Attachment G, Issue Papers #2 and #5 in Attachment H and Attachment J for detailed discussions regarding risk assessment.)

3. The Department is recommending a cleanup table with specified concentrations. These concentrations are expressed in milligrams per kilogram (mg/kg) which is the equivalent of parts per million (ppm). The PRP can vary from this cleanup number four different ways:

1. Conduct a leaching test and show groundwater is not affected;
2. Run a fate and transport model and show groundwater is not adversely affected;
3. Determine and clean to background; and
4. Determine and clean to the practical quantitation level (PQL).

The Department believes this provides an adequate amount of certainty (the specified concentrations) and an appropriate amount of flexibility (the four variances). The existing rule provided flexibility ("lowest feasible concentration"), but little certainty (other than the zero "background" standard). ECAC members who liked the flexibility of the current rule believed having only the specified concentration level (without variances) in the proposed rule would be a straitjacket worse than the existing rule. On the other hand, ECAC members who liked the certainty of background objected to the proposed rule's flexibility because they believed the proposed rule would not offer an adequate level of protection. ECAC members agreed on the table/variance approach after debating several draft

versions of the table and rule. However, all of ECAC wants to review the rule after implementation to see how it works and whether it should be amended.

4. The Department is recommending no changes to the public participation requirements for cleanups under the proposed rule. "Simple" site cleanups are "remedial actions," and, as such, are required by ORS 465.320 and OAR 340-122-100 to follow certain public participation requirements. The Department remains concerned that some public participation requirements (e.g. publication in the Secretary of State's *Bulletin*) may unduly delay remedial actions, but no changes are included in this rule proposal.

   As to public participation in the rulemaking process, the Department has solicited input from the public through the ECAC and the public hearing process. The ECAC is a fifteen-member citizen's advisory board whose members have very diverse areas of expertise and strongly-held opinions. The ECAC members met fourteen times over seventeen months to debate the issues within the proposed rule (see the ECAC recommendations in Attachments F and R).

   The Department conducted five public hearings on the proposed rule in January 1992. (See Attachments D, P, and Q for the notice, public comments, and the Department's responses to comments.) The Department has responded to the comments made during the comment period, and has amended the proposed rule in a manner consistent with the comments and ECAC's direction.

5. The Department is recommending cleanup standards that are based on the art and science of risk assessment and computer modeling. The Department wants to make it very clear that there are a number of scientific uncertainties involved with risk assessment and various fate and transport models. (For detailed discussions of these uncertainties see Attachments H-5, J, K, L, M, and O).

   In this summary, the Department will highlight only a few of the uncertainties. For example, cancer potency factors are often based on animal data that are extrapolated to human doses. Often times the administered dose to the animal is massive relative to its size. Even though this toxicological data must result in an approximation as to what dose adversely affects human health, the Department accepts the uncertainty since the methodology is the best available and it provides a consistent approach to developing concentrations which adversely affect human

health.

Risk assessment exposure factors also are critical in developing cleanup standards. The Department used the EPA's "Superfund" Reasonable Maximum Exposures (RMEs) and standard default exposure factors. These values are "conservative" without being worst case assumptions. For example, exposure duration under the default exposure factors is 30 years rather than the 70 years used for some other risk assessments. (See Attachment J for the most detailed discussion of risk assessment and exposure factors.)

In all of its modeling the Department used what it deemed to be "reasonably conservative" values. The intent was to be protective without being unduly stringent. Some public comments criticized the "cascading conservatism" that results from always using the worst case assumptions. The Department strove to avoid this effect by using the reasonably conservative values.

When the Department conducted its fate and transport modeling (to determine how much contamination might be attenuated and diluted in the soil and groundwater), the Department used a pool of experts from inside and outside the Department to determine appropriate factors. (See Attachment O for a detailed discussion of the modeling effort). By consistently using reasonably conservative values, the Department has constructed a cleanup table that is protective in most cases. The Department retains the right to "kick out" a PRP that doesn't belong under the proposed rule, and the PRP can either use one of the four variances or "opt out" of the rule if site conditions so demand.

6. The Department has recommended that an "industrial area" cleanup be permitted under certain circumstances. As noted above, the Department elected to use the EPA's standard default exposure factors, and these factors would allow higher residual concentrations to remain in industrial areas since the exposure to the residue is less. The Department does not encourage "industrial" cleanups, but the Department recognizes in certain settings it is appropriate to clean up to a level which permits the industrial activity to continue while still protecting human health and the environment. "Industrial" cleanups require the PRP to impose certain "institutional controls" (e.g. deed restrictions) to assure the property is used for only those activities where the lower exposure factors are warranted.

PROGRAM CONSIDERATIONS:

The proposed rule changes may have the greatest impact on the Voluntary Cleanup Section (VCS) as most PRPs who would elect to clean up under the new rules would participate through the VCS program. From the VCS's inception, the program has been user-funded and the new rules will not alter the principle that the statutorily-responsible party pays. The new rules may result in an influx of new requests for DEQ oversight on "simple" sites, but the section has anticipated that need and is increasing its staffing.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. No action; collect additional data;

2. Develop guidance rather than rule;

3. Develop numerical soil cleanup standards to be applied at "simple" sites;

4. Narrow scope of rule;

5. Broaden scope of rule; and

6. Make comprehensive changes to rule to address all media.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

DEQ recommends Alternative 3, "Numerical Soil Cleanup Standards for 'Simple' Sites," be adopted.

Alternative 1, "No Action," was rejected because data collection could be an endless process without an appreciably better product. The Environmental Cleanup Advisory Committee (ECAC) has met fourteen times over the past seventeen months and examined all alternatives. ECAC would like better data, but does not believe further delay is warranted - especially when rule implementation will test the rule's efficacy.

Alternative 2, "Guidance," was rejected because PRPs need the certainty that only rules can bring. PRPs could be threatened with enormous additional cleanup liabilities if the guidance were deemed inadequate by other agencies (e.g. EPA).

Alternatives 4 and 5, "Narrowing or Broadening Scope," were rejected for being either too restrictive or too inclusive. The scope of the rule has varied from the very narrow (21 compounds with very strict "eligibility criteria") to the very broad (1000s of compounds applied to any "operable unit"). The proposed rule strikes the middle ground involving 77 compounds where there is good toxicological data and where the eligibility criteria limit the sites to those where only soil is contaminated.

Alternative 6, "Comprehensive Changes for Cleanup Standards in All Media," was rejected for being too complicated. Developing the soil cleanup standards has been an arduous task. The lessons learned here will help in any future revision of the rules, but it would be premature to establish cleanup criteria for all environmental media at this time.

Although the Department recommends Alternative 3, significant areas of controversy were debated, and remain, within the details of this approach. The major issues were discussed above, but sub-issues have popped up throughout the rulemaking process. One set of sub-issues the Department would like to highlight were those around the stringency of the "Leachate Reference Concentration" that were emphasized in the public hearings.

The "Leachate Reference Concentration" was developed as a test to assure that once soils were cleaned to a point where they no longer posed a significant threat to human health and the environment via direct contact, the residual contamination would not leach to groundwater and pose a risk by a different exposure pathway. The "Leachate Reference Concentration" refers to a benchmark against which results of a leaching test (either the Toxicity Characteristic Leaching Procedure [TCLP] or the Synthetic Precipitation Leaching Procedure [SPLP]) are compared. The PRP must show post-cleanup residues will not leach to groundwater and result in concentrations above drinking water standards (Maximum Contamination Levels or MCLs) or equivalent health standards.

The Department had originally recommended the Leachate Reference Concentration concept, and the Department had set the leachate numbers equal to a drinking water standard. The ECAC had agreed on the concept by a majority vote, but the same majority believed the leachate reference numbers were too stringent. The original Leachate Reference Concentrations did not allow for attenuation or dilution of

the contaminant within the soil column or in the groundwater. The Department concluded the numeric levels contained in the Leachate Reference Concentration column were likely more protective than reasonable as applied. Having such stringent levels would be contrary to the overall purpose of the rules: encouraging more cleanups which could be accomplished more speedily while maintaining the same level of protection as under the current remedial action (RA) cleanup rules.

A second sub-issue with the "Leachate Reference Concentration" in the proposed rule was the use of an "equivalency demonstration" to show groundwater would not be adversely affected even if the cleanup "failed" the leaching test. The goal of the leaching test was to prove the residue would not contaminate groundwater. Commenters noted this proof might be supplied by means other than the specified TCLP or SPLP. The problem with an "equivalency demonstration" was that there were no default "cookbook" numbers, and making site-specific determinations would have introduced a level of complexity not envisioned for "simple" sites.

The Department sought specific public comments on how the Leachate Reference Concentration might be modified. The Department stated throughout the review process of these rules that any cleanup procedures which allowed some contamination to remain in place could pose threats to groundwater. The Department stated it was essential that a procedure which addressed the threat to groundwater remain a formal and prominent part of the rules.

While the Department believed the Leachate Reference Concentration and leaching test provided the most promising approach, the Department remained open to alternative methods and actively solicited public input on this issue. During the public comment period, the Department continued its research for appropriate dilution and attenuation factors (DAF), fate and transport models, or other appropriate "equivalency" methodologies. The request for comments and research were fruitful.

The Department was able to modify, calibrate and use a number of models to develop: (1) specific cleanup levels; (2) modified Leachate Reference Concentrations; and (3) specific "equivalency demonstrations." (See Attachment O for the details of the models and process.)

While this new information changed the *format* of the table, the basic approach and the substance of the table and the rule remained unchanged. Now, as in the Public Comment Draft of the rule, the responsible party may propose to clean up "simple" sites under this rule. The responsible party may clean up to the levels now specified in the table, or the PRP may use one of the variances within the rule and appendix. The changes to the rule since the public comment period make the rule clearer and simpler without changing the basic content.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

In DEQ's Strategic Plan, ECD's first listed high priority is: "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)

Goal 8 states: "Streamline agency programs and activities by identifying and implementing more efficient ways to accomplish essential actions and by eliminating low priority tasks."

The Oregon Legislature recognized that rulemaking would be essential to carry out the purpose of cleaning up the environment and authorized rulemaking under ORS 465.400.

ISSUES FOR COMMISSION TO RESOLVE:

1. Does the Commission agree with the Department's recommendation to augment the environmental cleanup standards of "background" or "lowest feasible concentration" with numerical cleanup levels for "simple" sites?

2.. Does the Commission agree with the Department's recommendation to use risk assessment as the central tool to determine soil cleanup levels?

3. Does the Commission agree with the Department's recommendation to use "acceptable risk" levels of 1×10^{-6} for each carcinogenic compound; 1×10^{-5} for total excess cancer risk per site; a hazard quotient of 1 for each non-carcinogenic compound; and a hazard index ≤ 1 per site?

4. Does the Commission agree with the Department's recommendation to allow variances to the cleanup levels when: (1) The PRP can show by a leaching test that higher residual levels will not adversely affect groundwater; or (2) The PRP can show by a fate and transport model that higher residual levels will not adversely affect groundwater; or (3) The PRP can show the natural background level of the contaminant is higher than the cleanup level and the PRP will clean to background; or (4) The PRP can show the cleanup level is below what can be analytically determined, and the PRP will determine the Practical Quantitation Limit (PQL) and will clean to that level?

5. Does the Commission agree with the Department's recommendation to use the EPA's standard default exposure factors, Reasonable Maximum Exposures, and the extended concept of "reasonably conservative" values in the various models?

6. Does the Commission agree with the Department's recommendation to proceed with the proposed rule although there are scientific uncertainties in risk assessment and computer modeling? Does the Commission share the Department's belief that the increase in the number of sites cleaned up more than warrants accepting the uncertainties inherent in developing the cleanup standards?

7. Does the Commission agree with the ECAC recommendation to have the Department compile empirical data on the cleanups conducted under this rule and to return to ECAC in 18 months with recommendations on how the rule should be modified?

INTENDED FOLLOWUP ACTIONS:

Develop guidance documents on sampling protocol, background determination, practical quantitation level (PQL) determination, total site risk calculation, and other implementation procedures.

Report back to ECAC 18 months after adoption of the rules with information on the number of cleanups started/completed under these rules and information on revised toxicological data and other information on revised models or methodologies.

SEE SIGNATURES ON FOLLOWING PAGE.

Approved:

Section: Mary Wahl

Division: Michael Downs

Director: Jill Hanen

Report Prepared By: Brooks Koenig

Phone: 229-6801

Date Prepared: May 12, 1992

BK:bk
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5/14/92

ENVIRONMENTAL CLEANUP RULES

OAR 340-122-010 to 340-122-110

This set of rules is being presented to the Environmental Quality Commission on June 1, 1992 for adoption.

These rule changes include numerical cleanup levels for contamination in soil only.

Additions to the existing environmental cleanup rules are indicated by shaded portions; ~~deletions are indicated by strikeout.~~

Portions of the text of the environmental cleanup rules not affected by the amendments are excluded.

THIS IS A DRAFT DOCUMENT.

340-122-020 DEFINITIONS

Terms not defined in this section have the meanings set forth in ORS 465.200. Additional terms are defined as follows unless the context requires otherwise:

(1) "Alternative technology" means a system, process, or method that permanently alters the composition of a hazardous substance through chemical, biological, or physical means so as to significantly reduce the volume, toxicity, or mobility of the hazardous substance or contaminated materials treated. Such technology may include a system, process, or method during any of the following stages of development:

(a) Available technology that is fully developed and in routine or commercial or private use;

(b) Innovative technology where cost or performance information is incomplete and where full-scale field testing is required before the technology is considered proven and available for routine use; or

(c) Emerging technology that has not successfully passed laboratory or pilot-scale testing.

(2) "Background Level" means the concentration of hazardous substance, if any, existing in the environment at the site before the occurrence of any past or present release or releases.

(3) "Director" means the Director of the Department of Environmental Quality or the Director's authorized representative.

(4) "Environment" includes the waters of the state, any drinking water supply, any land surface and subsurface strata, sediments, saturated soils, subsurface gas, or ambient air or atmosphere.

(5) "Facility" or "site" has the meaning set forth in ORS 465.200(6).

(6) "Hazardous substance" means: (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, and P.L. 99-499; (c) oil as defined in ORS 465.200(11); and (d) any substance designated by the commission under ORS 465.400.

(~~6~~7) "Permitted release" means a release that is authorized by and in material compliance with a current and legally enforceable:

(a) Permit, of a specifically identified hazardous substance that is subject to a specified concentration level, standard, control, procedure, or other condition; or

(b) Sludge management plan approved pursuant to OAR 340-50-005 through 340-50-080.

(8) "Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment including the abandonment or discarding of barrels, containers and other closed receptacles containing any hazardous substance, or any threat thereof, but excludes:

(a) Any release which results 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 the requirements with respect to financial 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.

340-122-030 SCOPE AND APPLICABILITY

These rules apply to the release of hazardous substances into the environment except as below:

(1) Exempted Releases

These rules shall not apply to releases exempted pursuant to ORS 465.200(14)(a), (b), (c), and (d).

(2) Conditional Exemption of Permitted Releases

These rules shall not apply to a permitted release of hazardous substances, unless the Director determines that application of these rules might be necessary to perform a preliminary assessment or in order to protect public health, safety, or welfare or the environment.

(3) Relationship to Other Cleanup Actions

(a) Except as provided under OAR 340-122-030(3)(b), these rules shall not apply to releases where one of the following actions has been completed:

(A) Spill response pursuant to ORS 466.605 to 466.680;

(B) Oil spill cleanup on surface waters pursuant to ORS 468.780 to 468.815;

(C) Corrective action of a release of a hazardous waste pursuant to ORS 466.005 to 466.350;

(D) Cleanup pursuant to ORS 468.700 to 468.778.

(b) Where hazardous substances remain after completion of one of the actions referred to in OAR 340-122-030(3)(a), these rules may apply if the Director determines that application of these rules might be necessary to perform a preliminary assessment or in order to protect public health, safety, or welfare or the environment.

(4) Corrective Action for Petroleum Releases from Underground Storage Tanks

OAR 340-122-205 to 340-122-360 shall apply to corrective action for releases of petroleum from underground storage tanks that are subject to ORS 466.705 to 466.835 and 466.895, except as provided under OAR 340-122-215(2) which authorizes the Director to order the cleanup under 340-122-010 to 340-122-110.

340-122-040 STANDARDS

(1) Any removal or remedial action shall attain a degree of cleanup of hazardous substances and control of further release of hazardous substances that assure protection of present and future public health, safety, and welfare and the environment. Such protection shall prevent, eliminate, or minimize potential and actual adverse impacts from hazardous substances to:

(a) Biological receptors;

(b) Present and future uses of the environment;

(c) Ecosystems and natural resources; and

(d) Aesthetic characteristics of the environment.

(2) (a) In the event of a release of a hazardous substance, the environment shall be restored to (A) the levels specified in OAR 340-122-045 if appropriate, or (B) Background Level unless the Director determines that remedial actions designed to attain Background Level do not meet the "feasibility" requirement of OAR 340-122-090(1)(b), in which event the environment shall be restored to the lowest concentration level in accordance with OAR 340-122-090.

(b) In the event of a threat of release of hazardous substances, the Background Level of the environment shall be protected. ~~[unless the Director determines that remedial actions designed to protect the Background Level do not satisfy the "feasibility" requirement of OAR 340-122-090(1)(b), in which event the environment shall be protected to the lowest concentration level in accordance with OAR 340-122-090.]~~

(c) As provided under (2)(a) and (2)(b), Background before contamination and, when appropriate, the concentration levels specified in 340-122-045 ~~is~~ are the standards. ~~, a goal that~~ These levels might not be possible in some instances or feasible in others, based on the qualifying factors as applied under 340-122-045 and 340-122-090(1)(b) of these rules.

(3) A removal or remedial action shall prevent or minimize future releases and migration of hazardous substances in the environment. A removal or remedial action and related activities shall not result in degradation of the environment worse than that existing when the removal or remedial action commenced, unless short-term degradation is approved by the Director under OAR 340-122-050(4).

(4) A removal or remedial action shall provide long-term care or management, where necessary, including but not limited to monitoring, operation, and maintenance as appropriate.

340-122-045 NUMERICAL SOIL CLEANUP LEVELS

This rule (045) provides cleanup levels for hazardous substances in soil only. These optional cleanup levels may differ from background or the lowest feasible concentration levels provided elsewhere within this division. Remedial actions under this rule remain subject to the public participation requirements provided under ORS 465.320 and OAR 340-122-100. The responsible party may propose a remedial action under this rule if the responsible party meets the criteria (1) through (5) below:

(1) The characterization of the hazardous substances and the facility has been conducted in a manner acceptable to the Department.

(2) The characterization has determined:

(a) The number and the nature of the contaminants of concern;

(b) The contaminants of concern exist in soil only;

(c) All contaminants of concern are listed on the soil cleanup table;

(d) The source(s) of the contaminants of concern;

(e) The vertical and horizontal extent of the contaminants of concern; and

(f) The depth to groundwater.

(3) The responsible party can demonstrate to the Department that upon completion of the remedial action the total excess cancer risk will not exceed 1×10^{-5}, and the hazard index for non-carcinogens with similar critical endpoints will not exceed 1.

(a) Risks are presumed to be additive for carcinogens and for non-carcinogens with similar critical endpoints. The cleanup levels in the Soil Cleanup Table and Appendix 1 below must be prorated downward when the substances have similar critical endpoints to keep the total site risk below the prescribed levels.

(b) In determining whether a site with multiple contaminants of concern will be accepted for remedial action under this rule the Department will consider the following:

(A) detected concentrations;

(B) toxicity and critical endpoints;

(C) frequency of detection;

(D) mobility;

(E) persistence;

(F) bioaccumulation potential; and

(G) degradation products.

(4) No contaminants of concern at the facility will adversely affect surface water based upon consideration of:

(a) Distance to the surface water;

(b) Containment of the contaminants of concern;

(c) Surface soil permeability;

(d) Maximum 2-year, 24-hour precipitation event;

(e) Proximity of flood plain(s);

(f) Terrain slope;

(g) Vegetative cover; and

(h) Hydrological connections between groundwater and surface water.

(5) No contaminants of concern at the facility will adversely affect sensitive environments based upon consideration of:

(a) Distance to the sensitive environment;

(b) Surface soil permeability and erodibility;

(c) Vegetative cover; and

(d) Transport media.

(6) If all the criteria in 340-122-045 (1), (2), (3), (4) and (5) are met, the responsible party may propose a remedial action which uses the Soil Cleanup Table and Appendix 1 below to determine the appropriate cleanup levels. All remedial actions under this rule (045) must meet the appropriate Soil Cleanup Level or Leachate Concentration in the Table unless the responsible party can demonstrate by one of the following methods that groundwater will not be adversely affected or that the cleanup level is below background or the practical quantitation level (PQL) and a higher residual concentration than the Soil Cleanup Level is appropriate:

(a) The responsible party can demonstrate with a sampling methodology acceptable to the Department that the leachate concentrations from representative site samples do not exceed the Leachate Concentration for the inorganics in the Table or the Leachate Reference Concentrations in Appendix 1. The responsible party may perform the Synthetic Precipitation Leaching Procedure (SPLP; EPA Method 1312), the Toxicity Characteristic Leaching Procedure (TCLP; EPA Method 1311) or other Department approved procedures to estimate potential leaching of contamination at the site. In no case may the residual contamination exceed the Maximum Allowable Soil Concentrations in Appendix 1 as specified in (7) below; or

(b) The responsible party can demonstrate with a Department-approved fate and transport model and with default and/or site-specific data approved by the Department that residual soil concentrations will not result in contaminant concentrations in the groundwater which exceed the Groundwater Reference Concentrations listed in Appendix 1. This demonstration must consider factors such as type/nature of contaminants; source quantity; quantity of contaminated soils; clay content; soil pH; redox potential; chemical and physical properties of the contaminants including toxicity and mobility; net precipitation; subsurface hydraulic conductivity; vertical depth to groundwater; degradation products; and naturally-occurring background levels. In no case may the residual contamination exceed the Maximum Allowable Soil Concentrations in Appendix 1 as specified in (7) below; or

(c) The responsible party can demonstrate that the soil cleanup level for the contaminant of concern is below the background level for compounds that occur naturally. The responsible party may in a manner acceptable to the Department determine the

representative background concentration and clean up to that level; or

(d) The responsible party can demonstrate that the soil cleanup level is below the practical quantitation level (PQL) for the contaminant of concern. The responsible party may in a manner acceptable to the Department and according to "Test Methods for Evaluating Solid Waste, SW-846, 3rd Ed.", US EPA, 1986 (including methods as approved in 54 FR 40260-40269, 9/29/89 and 55 FR 8948-8950, 3/9/90) determine the proper PQL and remediate until the residual contamination meets the PQL level; or

(e) The responsible party can elect to opt out of this rule and perform a Remedial Investigation and Feasibility Study (RI/FS) under 340-122-080.

(7) If leaching to groundwater is not the pathway of concern or if the responsible party demonstrates that groundwater will not be adversely affected by performing the appropriate leaching test or fate and transport model, the residual soil contamination shall not exceed the Residential Maximum Allowable Soil Concentration in Appendix 1 unless the site meets the industrial criteria and the responsible party proposes to meet the Industrial Maximum Allowable Soil Concentration. If the responsible party proposes the industrial soil cleanup levels, the facility must meet all the following additional criteria:

(a) The facility is zoned for industrial use;

(b) Appropriate institutional controls (e.g. deed restrictions, restrictive covenants, Environmental Hazard Notice) will be in force; and

(c) Uses of the facility and uses and zoning of properties within 100 meters of the contaminated area are industrial uses or are other uses where the Department concurs that the exposure is limited and thus does not warrant application of the residential standard.

(8) Proposed remedial actions under this section are not required to include the feasibility study in OAR 340-122-080(3) except as noted in (6)(e) above. Only remedial technologies that have been proven to be effective in reaching the cleanup levels shall be approved.

(9) This section, including the numerical cleanup levels and the procedures and standards set forth in this section, are not intended to be construed or applied as applicable or relevant and appropriate requirements under § 121 (d) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 USC § 9621.

(10) If the responsible party has adequately characterized the site and achieved the appropriate cleanup levels or made appropriate demonstrations as described in (6) and (7) above, the Department will issue a written determination that the cleanup is complete subject to any Department finding based on new information that the cleanup as performed is not protective of human health or the environment.

OREGON SOIL CLEANUP TABLE

NOTE:

This table provides cleanup levels expressed as soil concentrations or leachate concentrations for hazardous substances contained in soil only. These optional cleanup levels may differ from background or the lowest feasible concentration levels provided elsewhere within this division (See OAR 340-122-090). The responsible party may propose a remedial action under this rule if the responsible party meets the criteria (1) through (5) below:

(1) The characterization has been conducted in a manner acceptable to the Department. (See OAR 340-122-045(1).)

(2) The characterization has determined the source, extent, number and nature or the contaminants, and these contaminants are in soil only. (See 340-122-045(2).)

(3) Upon completion of the remedial action, the residual contamination in soil will not pose a total excess risk of greater than 1x10-5 for carcinogens or a hazard index of 1 for non-carcinogens with similar critical endpoints. (See 340-122-045(3).)

(4) No contaminants of concern at the facility will adversely affect surface water. (See 340-12-045(4).)

(5) No contaminants of concern at the facility will adversely affect sensitive environments. (See 340-122-045(5).)

The cleanup levels in this table represent a per contaminant risk (1x10-6 excess cancer risk or a hazard quotient of 1 for non-carcinogens) under specified exposure scenarios. These soil cleanup levels must be pro-rated downward when multiple non-carcinogenic substances have similar critical endpoints or multiple carcinogenic substances would result in a total excess site risk greater than 1x10-5.

	HAZARDOUS SUBSTANCE	SOIL CLEANUP LEVEL (mg/kg)	ADVERSE HEALTH EFFECT	PATHWAY
	A. VOLATILES			
1	Acrylonitrile	0.0001	cancer	a,*
2	Benzene	0.1	cancer	a
3	Bromodichloromethane	0.01	cancer	a
4	Bromoform	0.3	cancer	a
5	Bromomethane	60	noncancer 1	a
6	Carbon tetrachloride	0.2	cancer	a
7	Chlorobenzene	50	noncancer 2,3	a
8	Chlorodibromomethane	10	noncancer 3	a
9	Chloroform	0.4	cancer	a
10	Dichloroethylene, 1,1-	0.01	cancer	b
11	Dichloroethylene-cis 1,2-	4	noncancer 4	a
12	Dichloroethylene-trans 1,2-	5	noncancer 3	a
13	Ethylbenzene	100	noncancer 5	a
14	Ethylene dichloride	0.008	cancer	a
15	Formaldehyde	4	cancer	a,*
16	Hexachlorobenzene	0.4	cancer	c,*
17	Methylene chloride	0.1	cancer	a
18	Tetrachloroethylene	0.3	cancer	a
19	Toluene	80	noncancer 6,7	a
20	Trichloroethane,1,1,1-	9	noncancer 3	a
21	Trichloroethane,1,1,2-	0.08	noncancer 3	a
22	Trichloroethylene	0.4	cancer	a
23	Trichlorofluoromethane	1,000	noncancer 8	d
24	Vinyl chloride	0.008	cancer	a,*
25	Xylenes	800	noncancer 7	a
	B. SEMI-VOLATILES			
26	Acenaphthene	2,000	noncancer 3	a
27	Anthracene	20,000	++	a
28	Benzidine	0.0000009	cancer	a,*
29	Benzo(a)anthracene	0.1	cancer	c,e

	HAZARDOUS SUBSTANCE	SOIL CLEANUP LEVEL (mg/kg)	ADVERSE HEALTH EFFECT	PATHWAY
30	Benzo(a)pyrene	0.1	cancer	c
31	Benzo(b)fluoranthene	0.1	cancer	c,e
32	Benzo(k)fluoranthene	0.1	cancer	c,e
33	Bis(2-ethylhexyl)phthalate	4	cancer	a
34	Chrysene	0.1	cancer	c,e
35	Di-n-propylnitrosamine	0.00003	cancer	a,*
36	Dibenzo(a,h)anthracene	0.1	cancer	c,e
37	Dichlorobenzidine,3,3-	0.05	cancer	a,*
38	Dichloroethyl ether	0.0002	cancer	a,*
39	Dinitrotoluene 2,6-	0.002	cancer	a,*
40	Diphenylnitrosamine	2	cancer	a
41	Fluoranthene	8,000	noncancer 2,3,4	a
42	Fluorene	2,000	noncancer 4	a
43	Hexachloroethane	100	noncancer 2	a
44	Indeno(1,2,3-cd)pyrene	0.1	cancer	c,e
45	Naphthalene	30	noncancer 9	a
46	Pentachlorophenol	5	cancer	a
47	Polychlorinated biphenyls	0.08	cancer	c,f
48	Pyrene	6,000	noncancer 2	a
49	Trichlorophenol,2,4,6-	2	cancer	a
	C. PESTICIDES			
50	Aldrin	0.04	cancer	c
51	BHC-alpha	0.008	cancer	a
52	Chlordane	0.5	cancer	c
53	D, 2,4-	0.3	noncancer 2,3,4	a,*
54	DDD,4,4-	3	cancer	c
55	DDE,4,4-	2	cancer	c
56	DDT, 4,4-	2	cancer	c
57	Dieldrin	0.001	cancer	a,*
58	Endosulfan(alpha-beta)	0.0006	noncancer 2	a,*
59	Endrin	0.05	noncancer 3,7	a
60	Heptachlor	0.0002	cancer	a,*
61	Heptachlor epoxide	0.0003	cancer	a,*
62	Lindane	0.03	noncancer 2,3	a
63	MCPA	100	noncancer 2,3	g
64	Toxaphene	0.01	cancer	a,*

	HAZARDOUS SUBSTANCE	LEACHATE CONCENTRATION (m) (mg/l)	ADVERSE HEALTH EFFECT	PATHWAY
	D. INORGANICS			
65	Arsenic	0.004	cancer	h
66	Barium	100	noncancer 5	i
67	Beryllium	0.002	cancer	h,*
68	Cadmium	0.5	noncancer	i
69	Chromium (total)	10	noncancer 3	i
70	Copper	130	noncancer 1	i
71	Cyanide	20	noncancer 7,9,10	j
72	Lead	2	noncancer	k
73	Manganese	400	noncancer 11	l
74	Mercury	0.2	noncancer 2,7	i
75	Nickel	10	noncancer 9	j
76	Silver	5	noncancer 12	i

(a) Concentration is based on potential leaching to groundwater
(b) Based on volatile inhalation and an excess cancer risk of 1 in a million (1E-06)
(c) Concentration is based on incidental soil ingestion and an excess cancer risk of 1 in a million (1E-06)
(d) Based on volatile inhalation and a hazard quotient equal to 1.
(e) Based on the potency of Benzo(a)pyrene
(f) Based on the potency of PCB 1260
(g) Concentration is based on incidental soil ingestion and a hazard quotient equal to 1
(h) Leachate concentration is derived from a concentration that is based on water ingestion and an excess cancer risk of 1 in a million (1E-06)
(i) Leachate concentration is derived from the drinking water maximum contaminant level
(j) Leachate concentration is derived from the proposed drinking water maximum contaminant level
(k) Leachate concentration is derived from the action level for lead
(l) Leachate concentration is derived from a concentration that is based on water ingestion and a hazard hazard quotient equal to 1
(m) Concentration is derived from the ground water reference concentration , soil cleanup levels shall not exceed the appropriate maximum allowable soil concentration in Appendix 1.
(*) Practical quantitation limit may be a concern (see OAR 340-122-045 (6)(d))

Adverse Health Effects:

(cancer)-cancer
(noncancer 1)-adverse gastrointestinal effects
(noncancer 2)-adverse kidney effects
(noncancer 3)-adverse liver effects
(noncancer 4)-adverse blood effects
(noncancer 5)-adverse developmental effects
(noncancer 6)-adverse nasal effects
(noncancer 7)-adverse central nervous effects
(noncancer 8)-decreased survival and tissue defects
(noncancer 9)-weight loss
(noncancer 10)-adverse thyroid effects
(noncancer 11)-adverse respiratory and behavioral effects
(noncancer 12)-adverse skin effects
(++) No observed effects noted

APPENDIX 1

	HAZARDOUS SUBSTANCE	LEACHATE REFERENCE CONCENTRATION (mg/l) 340-122-045(6)(a)	GROUNDWATER REFERENCE CONCENTRATION (mg/l) 340-122-045(6)(b)	BASIS	ADVERSE HEALTH EFFECT	RESIDENTIAL MAXIMUM ALLOWABLE SOIL CONCENTRATION (mg/kg) 340-122-045(7)	INDUSTRIAL MAXIMUM ALLOWABLE SOIL CONCENTRATION (mg/kg) 340-122-045(7)	BASIS	ADVERSE HEALTH EFFECT
	A. VOLATILES								
1	Acrylonitrile	0.000005	0.0002	a,*	cancer	0.1	0.2	b	cancer
2	Benzene	0.006	0.003	a,*	cancer	1	2	b	cancer
3	Bromodichloromethane	0.0007	0.0007	a,*	cancer	5	40	c	cancer
4	Bromoform	0.01	0.01	a	cancer	80	700	c	cancer
5	Bromomethane	3	0.05	d	noncancer 1	400	3,000	e	noncancer 1
6	Carbon tetrachloride	0.007	0.0007	a,*	cancer	5	40	c	cancer
7	Chlorobenzene	3	0.7	d	noncancer 2,3	5,000	40,000	e	noncancer 3
8	Chlorodibromomethane	0.6	0.7	d	noncancer 3	5,000	40,000	e	noncancer 3
9	Chloroform	0.02	0.01	a	cancer	100	900	c	cancer
10	Dichloroethylene, 1,1-	0.0007	0.0001	a,*	cancer	0.01	0.02	b	cancer
11	Dichloroethylene-cis 1,2-	0.2	0.07	f	noncancer 4	3,000	20,000	e	noncancer 4
12	Dichloroethylene-trans 1,2-	0.2	0.1	f	noncancer 3	5,000	40,000	e	noncancer 3
13	Ethylbenzene	7	0.7	f	noncancer 3	15,000	20,000	g	noncancer 5
14	Ethylene dichloride	0.0004	0.0009	a,*	cancer	7	60	c	cancer
15	Formaldehyde	0.00008	0.002	a,*	cancer	20	200	c	cancer
16	Hexachlorobenzene	0.008	0.00005	a,*	cancer	0.4	4	c	cancer
17	Methylene chloride	0.005	0.005	h	cancer	7	10	b	cancer
18	Tetrachloroethylene	0.02	0.002	a,*	cancer	9	10	b	cancer
19	Toluene	4	1	f	noncancer 2,3	5,000	6,000	g	noncancer 6,7
20	Trichloroethane,1,1,1-	0.5	0.2	f	noncancer 3	7,000	9,000	g	noncancer 3
21	Trichloroethane,1,1,2-	0.004	0.005	h	noncancer 3	1,000	8,000	e	noncancer 3
22	Trichloroethylene	0.02	0.005	f	cancer	20	20	b	cancer
23	Trichlorofluoromethane	200	10	d	noncancer 8	1,000	1,500	g	noncancer 8
24	Vinyl chloride	0.0004	0.00004	a,*	cancer	0.03	0.05	b	cancer
25	Xylenes	40	7	d	noncancer 8,9	2,000	2,500	g	noncancer 7
	B. SEMI-VOLATILES								
26	Acenaphthene	60	2	d	noncancer 3	20,000	100,000	e	noncancer 3
27	Anthracene	700	10	d	++	80,000	600,000	e	++
28	Benzidine	0.00000004	0.0000004	a,*	cancer	0.003	0.02	e	cancer

	HAZARDOUS SUBSTANCE	LEACHATE REFERENCE CONCENTRATION (mg/l) 340-122-045(6)(a)	GROUNDWATER REFERENCE CONCENTRATION (mg/l) 340-122-045(6)(b)	BASIS	ADVERSE HEALTH EFFECT	RESIDENTIAL MAXIMUM ALLOWABLE SOIL CONCENTRATION (mg/kg) 340-122-045(7)	INDUSTRIAL MAXIMUM ALLOWABLE SOIL CONCENTRATION (mg/kg) 340-122-045(7)	BASIS	ADVERSE HEALTH EFFECT
29	Benzo(a)anthracene	0.002	0.00001	a,i,*	cancer	0.1	1	c,k	cancer
30	Benzo(a)pyrene	0.002	0.00001	a,*	cancer	0.1	1	c	cancer
31	Benzo(b)fluoranthene	0.002	0.00001	a,i,*	cancer	0.1	1	c,k	cancer
32	Benzo(k)fluoranthene	0.002	0.00001	a,i,*	cancer	0.1	1	c,k	cancer
33	Bis(2-ethylhexyl)phthalate	0.1	0.004	h,*	cancer	50	400	c	cancer
34	Chrysene	0.002	0.00001	a,i,*	cancer	0.1	1	c,k	cancer
35	Di-n-propylnitrosamine	0.000001	0.00001	a,*	cancer	0.09	0.8	c	cancer
36	Dibenzo(a,h)anthracene	0.002	0.00001	a,i,*	cancer	0.1	1	c,k	cancer
37	Dichlorobenzidine,3,3-	0.002	0.0002	a,*	cancer	1	10	c	cancer
38	Dichloroethyl ether	0.000008	0.00008	a,*	cancer	0.6	5	c	cancer
39	Dinitrotoluene 2,6-	0.00009	0.0001	a,*	cancer	1	8	c	cancer
40	Diphenylnitrosamine	0.08	0.02	a	cancer	100	1,000	c	cancer
41	Fluoranthene	60	1	d	noncancer 2,3,4	10,000	80,000	e	noncancer 2,3,4
42	Fluorene	100	1	d	noncancer 4	10,000	80,000	e	noncancer 4
43	Hexachloroethane	3	0.04	d	noncancer 2	300	2,000	e	noncancer 2
44	Indeno(1,2,3-cd)pyrene	0.002	0.00001	a,i,*	cancer	0.1	1	c,k	cancer
45	Naphthalene	1	0.1	d	noncancer 5	1,000	8,000	e	noncancer 5
46	Pentachlorophenol	0.08	0.0007	a,*	cancer	5	50	c	cancer
47	Polychlorinated biphenyls	0.002	0.00001	j,*	cancer	0.08	0.7	c,l	cancer
48	Pyrene	100	1	d	noncancer 2	8,000	60,000	e	noncancer 2
49	Trichlorophenol,2,4,6-	0.1	0.008	a	cancer	60	500	c	cancer
	c. PESTICIDES								
50	Aldrin	0.0006	0.000005	a,*	cancer	0.04	0.3	c	cancer
51	BHC-alpha	0.0003	0.00001	a,*	cancer	0.1	0.9	c	cancer
52	Chlordane	0.009	0.00007	a	cancer	0.5	4	c	cancer
53	D, 2,4-	0.01	0.07	f	noncancer 2,3,4	3,000	20,000	e	noncancer 2,3,4
54	DDD,4,4-	0.05	0.0004	a	cancer	3	20	c	cancer
55	DDE,4,4-	0.04	0.0003	a	cancer	2	20	c	cancer
56	DDT, 4,4-	0.03	0.0003	a	cancer	2	20	c	cancer
57	Dieldrin	0.00006	0.000005	a,*	cancer	0.04	0.4	c	cancer
58	Endosulfan(alpha-beta)	0.00003	0.002	d	noncancer 2	10	100	e	noncancer 2
59	Endrin	0.002	0.0002	f	noncancer 3,7	80	600	e	noncancer 3,7
60	Heptachlor	0.000008	0.00002	a,*	cancer	0.1	1	c	cancer
61	Heptachlor epoxide	0.00002	0.000009	a,*	cancer	0.07	0.6	c	cancer

	HAZARDOUS SUBSTANCE	LEACHATE REFERENCE CONCENTRATION (p) (mg/l) 340-122-045(6)(a)	GROUNDWATER REFERENCE CONCENTRATION (mg/l) 340-122-045(6)(b)	BASIS	ADVERSE HEALTH EFFECT	RESIDENTIAL MAXIMUM ALLOWABLE SOIL CONCENTRATION (mg/kg) 340-122-045(7)	INDUSTRIAL MAXIMUM ALLOWABLE SOIL CONCENTRATION (mg/kg) 340-122-045(7)	BASIS	ADVERSE HEALTH EFFECT
62	Lindane	0.002	0.0002	f	noncancer 2,3	80	600	e	noncancer 2,3
63	MCPA	NC	0.02	d	noncancer 2,3	100	1,000	e	noncancer 2,3
64	Toxaphene	0.0006	0.00008	a,*	cancer	0.6	5	c	cancer
	D. INORGANICS								
65	Arsenic	0.004	0.00004	a	cancer	0.4	3	c	cancer
66	Barium	100	1	f	noncancer 5	20,000	140,000	e	noncancer 5
67	Beryllium	0.002	0.00002	a,*	cancer	0.1	1	c	cancer
68	Cadmium	0.5	0.005	f	cancer	100	1,000	e	noncancer 2
69	Chromium (total)	10	0.1	f	noncancer 3	1,000	1,500	k,l	cancer
70	Copper	100	1.3	f	noncancer 1	10,000	80,000	e	noncancer 1
71	Cyanide	20	0.2	h	noncancer 7,9,10	5,000	40,000	e	noncancer 7,9,10
72	Lead	2	0.015	m	noncancer	200	2,000	n,o	noncancer 11
73	Manganese	400	4	d	noncancer 12	30,000	200,000	e	noncancer 12
74	Mercury	0.2	0.002	f	noncancer 2,7	80	600	e	noncancer 2,7
75	Nickel	10	0.1	h	noncancer 9	5,000	40,000	e	noncancer 9
76	Silver	5	0.05	f	noncancer 13	1,500	10,000	e	noncancer 13

(a) Concentration is based on water ingestion and an excess cancer risk of 1 in a million (1E-06)
(b) Concentrations are based on volatile inhalation and an excess cancer risk of 1 in a million (1E-06)
(c) Concentrations are based on incidental soil ingestion and an excess cancer risk of 1 in a million (1E-06)
(d) Concentration is based on water ingestion and a hazard quotient equal to 1
(e) Concentrations are based on incidental soil ingestion and a hazard quotient equal to 1
(f) Drinking water maximum contaminant level
(g) Concentrations are based on volatile inhalation and a hazard quotient equal to 1
(h) Proposed drinking water maximum contaminant level
(i) Based on the potency of Benzo(a)pyrene
(j) Based on the potency of PCB 1260
(k) Concentrations are based on particulate inhalation and an excess cancer risk of 1 in a million (1E-06)
(l) Based on critical toxicity factor for hexavalent chromium
(m) Action level for lead
(n) Residential soil cleanup level is based on blood lead levels in children
(o) Industrial soil cleanup level is based on blood lead levels in adults
(p) Derived the groundwater reference concentration

footnotes continue next page

(*) Practical quantitation limit may be a concern (see OAR 340-122-045 (6)(d))
(++) No observed effects noted
(NC) Not calculable

Adverse Health Effects:

(cancer)-cancer
(noncancer 5)-adverse developmental effects
(noncancer 6)-adverse nasal effects
(noncancer 1)-adverse gastrointestinal effects
(noncancer 9)-weight loss
(noncancer 10)-adverse thyroid effects
(noncancer 7)-adverse nervous effects
(noncancer 12)-adverse respiratory and behavioral effects
(noncancer 2)-adverse kidney effects
(noncancer 13)-adverse skin effects
(noncancer 3)-adverse liver effects
(noncancer 4)-adverse blood effects
(noncancer 8)-decreased survival and tissue defects
(noncancer 11)-elevated blood pressure for industrial soil concentrations, and adverse central nervous system effects for residential soil concentrations

340-122-046 DEFINITIONS FOR 340-122-045 AND THE SOIL CLEANUP TABLE

(1) "Carcinogen" means any substance or agent that produces or tends to produce cancer in humans. "Carcinogen" as applied to the substances in the soil cleanup table means the substance has been classed by the U.S. Environmental Protection Agency (EPA) as an "A" (known human) or "B" (probable human) carcinogen in the EPA Integrated Risk Information System (IRIS) database.

(2) "Cleanup level" means the residual concentration of a hazardous substance in a medium that is determined to be protective of human health and the environment under specified exposure conditions.

(3) "Contaminant of concern" means a hazardous substance that is present in such concentrations that the contaminant poses a threat to human health or the environment. Hazardous substances are not "contaminants of concern" if the substances would not be "confirmed releases" under OAR 340-122-427(2) and (3). The department shall consider whether a hazardous substance is a "contaminant of concern" based upon:

(A) The toxicological characteristics of the hazardous substance that influence its ability to adversely affect human health or the environment relative to the concentration of the hazardous substance at the site;

(B) The chemical and physical characteristics of the hazardous substance which govern its tendency to persist in the environment;

(C) The chemical and physical characteristics of the hazardous substance which govern its tendency to move into and through environmental media;

(D) The natural background concentrations of the hazardous substances;

(E) The thoroughness of the testing for the hazardous substance at the site;

(F) The frequency that the hazardous substance has been detected at the site; and

(G) Degradation by-products of the hazardous substances.

(4) "Critical endpoint" or "critical effect" means the adverse health effect used as the basis for the derivation of the reference dose (RfD). Exposure to a given chemical may result in a variety of toxic effects (e.g. liver defects, kidney defects, or blood defects). The critical endpoint is selected from the different adverse health effects produced by a given chemical, and it is the adverse health effect with the lowest dose level that produced toxicity.

(5) "Groundwater" means 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.

(6) "Hazard index" means the sum of two or more hazard quotients for multiple hazardous substances and/or multiple exposure pathways.

(7) "Hazard quotient" means the ratio of the exposure of a single hazardous substance over a specified time period to a reference dose for that hazardous substance derived for a similar exposure period.

(8) "Practical quantitation limit" or "PQL" means the lowest concentration that can be reliably measured within specified limits of precision, accuracy, representativeness, completeness, and comparability when testing field samples and tested under routine laboratory operating conditions using department approved methods.

(9) "Risk" means the probability that a hazardous substance, when released into the environment, will cause adverse effects in exposed humans or other biological receptors.

(10) "Risk assessment" means the process used to determine the threats posed by hazardous substances. Elements include identification of the hazardous substances present in the environmental media; assessment of exposure and exposure pathways; assessment of the toxicity of the hazardous substances; characterization of human health risks; characterization of the impacts and/or risks to the environment.

(11) "Sensitive environment" means an area of particular environmental value where a hazardous substance could pose a greater threat than in other non-sensitive areas. Sensitive environments include but are not limited to: critical habitat for federally endangered or threatened species; National Park, Monument, National Marine Sanctuary, National Recreational Area, National Wildlife Refuge, National Forest

campgrounds, recreational areas, game management areas, wildlife management areas; designated federal Wilderness Areas; wetlands (freshwater, estuarine, or coastal); 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; and other significant open spaces and natural resources protected under Goal 5 of Oregon's Statewide Planning Goals.

(12) "Soil" means a mixture of organic and inorganic solids, air, water and biota which exists on the earth surface above bedrock, including materials of anthropogenic sources such as slag, sludge, etc.

(13) "Surface water" means lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, wetlands, 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.

(14) "Total excess cancer risk" means the upper bound on the estimated excess cancer risk associated with exposure to multiple hazardous substances and multiple exposure pathways.

340-122-070 REMOVAL

(1) Based upon the Preliminary Assessment or other information, the Director may perform or require to be performed a removal that the Director determines is in compliance with the standards set forth under OAR 340-122-040(1), (2), (3), and (4) and is necessary to prevent, minimize, or mitigate damage to the public health, safety, or welfare or the environment that might result from the release or threat of release.

(2) The performance of a removal shall not affect the Director's authority to perform or require to be performed a remedial action in addition to the removal, if such remedial action will permanently or more fully address a release or threat of release. The Director may undertake or require that a removal be undertaken at any time from the discovery of a release or threat of a release through the completion of a remedial action.

340-122-080 REMEDIAL INVESTIGATION AND FEASIBILITY STUDY

(1) If, based upon the Preliminary Assessment, the results of a removal, information gathered under 340-122-045, or other information, the Director determines that remedial action might be necessary to protect public health, safety, or welfare or the environment, the Director may perform or require to be performed a Remedial Investigation and/or Feasibility Study to develop information to determine the need for and selection of a remedial action.

(2) The Remedial Investigation shall include but is not limited to characterization of hazardous substances, characterization of the facility, and an endangerment assessment.

(a) The characterization of the hazardous substances may include but is not limited to information regarding:

(A) Extent to which the source can be adequately identified and characterized;

(B) Amount, form, concentration, toxicity, environmental fate and transport, and other significant characterization of present substances; and

(C) Extent to which the substances might be reused or recycled.

(b) The characterization of the facility may include but is not limited to information regarding:

(A) Hazardous substances mixtures present, media of occurrence, and interface zones between media;

(B) Hydrogeologic factors;

(C) Climatologic and meteorologic factors; and

(D) Ambient air quality.

(c) The endangerment assessment may include but is not limited to information regarding:

(A) Potential routes of exposure and concentration;

(B) Characterization of toxic effects;

(C) Populations at risk;

(D) Potential or actual adverse impact on:

(i) Biological receptors,

(ii) Present and future uses of the environment,

(iii) Ecosystems and natural resources, and

(iv) Aesthetic characteristics of the environment;

(E) Extent to which substances have migrated or are expected to migrate and the threat such migration might pose to public health, safety and welfare or the environment; and

(F) Potential for release of any substances or treatment residuals that might remain after remedial action.

(3) Unless excepted under 340-122-045, a ~~The~~ Feasibility Study shall include but is not limited to the development of remedial action options and the evaluation of remedial action options.

(a) The development of remedial action options may include but is not limited to the following range of options:

(A) Remedial action attaining Background Level;

(B) Highest and best technology attaining the lowest concentration levels technically achievable;

(C) Best feasible technology attaining the lowest concentration level that meets the requirements of OAR 340-122-090(1)(b) and (2), and does not exceed a site-specific concentration level considered protective of public health, safety, and welfare and the environment;

(D) Other measures to supplement or substitute for cleanup technologies, including but not limited to engineering or institutional controls (e.g., environmental hazard notice, alternative drinking water supply, caps, security measures, etc.);

(E) Combinations of any of the above options; and

(F) No action option.

(b) (A) Remedial action options developed under OAR 340-122-080(3)(a) shall be evaluated under the requirements, criteria, preferences, and factors set forth in OAR 340-122-090 and according to any other criteria determined by the Director to be relevant to selection of a remedial action under OAR 340-122-090.

(B) The evaluation of remedial action options developed under OAR 340-122-080(3)(a) shall include an evaluation of the extent to which the option or combination of options complies with relevant state, local, and federal law, standards, and guidance.

340-122-090 SELECTION OF THE REMEDIAL ACTION

(1) <u>"Protection" and "Feasibility" Requirements</u>

Based on the administrative record, the Director shall select a remedial action. Such remedial action shall:

(a) Be protective of present and future public health, safety, and welfare and the environment; and

(b) To the maximum extent practicable:

(A) use permanent solutions and alternative technologies or resource recovery technologies;

(B) be cost effective;

(C) be effective; and

(D) be implementable.

(2) Background, ~~[Level]~~, Specified Cleanup Levels or Lowest Concentration Levels

The remedial action shall attain: (a) the concentration levels specified in OAR 340-122-045 when appropriate, or (b) the Background Level of the hazardous substances unless the Director determines that Background Level does not satisfy the "feasibility" requirements set forth in OAR 340-122-090(1)(b), in which case the Director shall select a remedial action that attains the lowest concentration level of the hazardous substances that satisfies the "protection" and "feasibility" requirements set forth in OAR 340-122-090(1).

(3) Other Measures to Supplement Cleanup

The Director may require other measures, such as engineering and institutional controls, (e.g. environmental hazard notice, alternate drinking water supply, caps, security measures, etc.) to supplement cleanup of hazardous substances to Background Level, concentration levels in accordance with 340-122-045, or the lowest concentration level in accordance with OAR 340-122-090(2), where such supplementary measures are necessary to satisfy the "protection" and "feasibility" requirements set forth in OAR 340-122-090(1).

(4) Other Measures to Substitute for Cleanup

The Director may require other measures to substitute for cleanup of hazardous substances to Background Level, concentration levels under OAR 340-122-045 or the lowest concentration level under OAR 340-122-090(2), provided that:

(a) The Director determines that there is no remedial action under OAR 340-122-090(2), combined with supplementary measures under OAR 340-122-090(3), that satisfies the "protection" and "feasibility" requirements of OAR 340-122-090(1);

(b) Any such substitute measures, as appropriate, include provision for long-term care and management, including monitoring and operation and maintenance, and periodic review to determine whether a remedial action satisfying the "protection" and "feasibility" requirements of OAR 340-122-090(1) has become available; and

(c) Any proposed use of substitute measures be subject to public notice and participation under OAR 340-122-100.

(5) Protection

(a) In determining whether a remedial action assures protection of the present and future public health, safety, and welfare and the environment under the "protection" requirement of OAR 340-122-090(1)(a), only Background Level shall be presumed to be protective for all contaminants in all media. In soils only, cleanup activities that meet the eligibility criteria and attain concentration levels at or below those specified in the table OAR 340-122-045 are remedial actions presumed to be protective of human health and the environment. These ~~This~~ presumptions may be rebutted by information showing that ~~a~~ higher concentration levels ~~is~~ are also protective.

(b) In determining whether a concentration level higher than the Background Level is protective, the Director may consider:

(A) The characterization of hazardous substances and the facility, and the endangerment assessment;

(B) Other relevant cleanup or health standards, criteria, or guidance;

(C) Relevant and reasonably available scientific information; and

(D) Any other information relevant to the protectiveness of a remedial action.

(c) When comparing between potential concentration levels, a concentration level lower than another shall generally be considered to be more protective and preferable. This presumption may be rebutted by information showing that a higher concentration level is also protective.

(d) Any person responsible for undertaking the remedial action who proposes that the remedial action attain a concentration level higher than Background Level on the basis of protection shall have the burden of demonstrating to the Director through the Remedial Investigation and Feasibility Study that such concentration level is protective.

RULEMAKING STATEMENTS

for
Proposed Revisions and Additions to Existing Rules
Pertaining to Numerical Soil Cleanup Standards and Streamlined Process

OAR Chapter 340, Division 122

Pursuant to ORS 183.335, these statements provide information in the intended action to adopt rule amendments and additions which provide for optional cleanup levels and a streamlined process for Potentially Responsible Parties (PRPs) to clean up hazardous substances at "simple" sites.

STATEMENT OF NEED:

Legal Authority

Under ORS 468.020 the commission has the power to adopt such rules and standards as it considers necessary and proper in performing the functions vested by law in the commission. Additional statutory authority is found under ORS 465.400(1) where the commission may adopt rules necessary to carry out the environmental cleanup provisions of ORS 465.200 to 465.420 and 465.900.

Need for the Rule

In July 1990 the Voluntary Cleanup Initiative Task Force recommended to the Department that it develop specific cleanup standards and an expedited process for "simple" sites. The Task Force and the Department believe the existing rules impose a process that is too time-consuming and misdirect too many resources on analysis rather than on cleaning up.

The proposed rules will provide a degree of certainty as to "how clean is clean" and will allow a streamlined process so protective cleanups will be completed sooner. The proposed approach will not only protect human health and the environment, but will also use market incentives for the PRP to clean up sooner. The biggest impetus for the rule change comes from property owners who wish to engage in property transactions and want DEQ to grant a clean bill of health for the property. The proposed rule provides an incentive for PRPs to clean up by giving specific cleanup standards and a process that may save months of time.

The rule has no statutorily-mandated deadline. The Department has recognized the need for the rule and moved to implement it in concert with the Department mission "to be an active force to restore, enhance, and maintain the quality of Oregon's air, water and land."

Principal Documents Relied Upon

a. Environmental Quality Commission & Department of Environmental Quality Strategic Plan.

b. Oregon Revised Statutes 465.200 to 465.420 and 465.900.

c. Oregon Administrative Rules, Chapter 340, Division 122

FISCAL AND ECONOMIC IMPACT STATEMENT

I. Introduction

Proposed Actions:

DEQ proposes amendments to the existing environmental cleanup rules (OAR 340-122-010 to 340-122-110) and adding a new rule section "Numerical Soil Cleanup Levels" (340-122-045). The amendments and the addition provide for optional cleanup levels and a streamlined process for Potentially Responsible Parties (PRPs) to clean up hazardous substances at "simple" sites (only soil contaminated).

The amendments to the rule do not impose any additional regulatory burden or costs to the Potentially Responsible Party (PRP) whether the PRP is a small business, large business, local government or other state agency. The proposed rule amendments will result in financial and time savings as specified below:

ACTION	SAVINGS
Specifying Numerical Soil Cleanup Levels	The PRP will no longer be required to determine what "background" or the "lowest feasible concentration" level is thus saving the cost of analysis, the time of analysis, and the costs of uncertainty.
Using a "Focused" Remedial Investigation (RI)	The PRP will be able to conduct a more limited investigation using "the right tool for the right job" thus saving the cost of performing too detailed work over a longer time.
Eliminating the Preference for Permanence and Alternative Technologies	The PRP will be able to select the remedy that is effective and cost-effective without a requirement to select the best theoretical remedy thus making the best market decision.
Eliminating the Requirement of a Feasibility Study (FS)	The PRP will be able to select the most appropriate remedy without disproving other remedies; the PRP directs the resources into the remedy rather than the analysis.

II. General Public

The general public currently pays for environmental cleanup costs indirectly by costs passed through to the consumer. The proposed rules will not change that relationship, and any cost savings to the public will be negligible. However, the public may gain a direct environmental health advantage and an indirect economic advantage if more PRPs come forward to voluntarily clean up sites under the new standards.

PRPs who enter the Voluntary Cleanup Program are less likely to become "orphan" sites where the state (and the public) may have to fund the cleanup. The proposed rules keeps the "polluter pays" philosophy, but under the proposed rules the polluter will have clearer guidelines on how much will need to be cleaned. More sites should be cleaned up under the rules so Oregonians will have a cleaner environment while the PRP bears the brunt of the cleanup costs.

The public retains the right to comment on the cleanups under the proposed rules. Any attendant cost (which would be minimal) with that right remains the same as under the current rules.

III. Out-of-State Impact

The proposed rule affects cleanups of releases of hazardous substance into the environment within the state of Oregon. Any benefits or costs of the rules will accrue to or be incurred by those who must clean up the release. Out-of-state property owners or businesses will be equally liable as in-state owners and operators.

IV. Small Business

Small businesses may be the primary beneficiaries of the proposed rule. Since the rule is designed to expedite the cleanup of "simple" sites, small businesses are more likely to participate as they have "simple" sites and many of them. Cleanup costs for "simple" sites could cost hundreds of thousands of dollars, and the study and negotiation costs addressed by these rules could save tens of thousands of dollars and months of time.

One primary impetus to these rules was to develop standards and an expedited process so property transactions could be completed in a timely fashion. The proposed rules eliminate the need for a detailed risk assessment and extensive negotiations over the cleanup standards; the cost savings from these steps could range from a few dollars to thousands of dollars; the time saved could range from a few days to months. The rule changes could get more property cleaned up more quickly at less cost; the only adverse effect of the proposed rules would be no effect beyond the current rules.

The proposed cleanup standards have not been adjusted on the basis of "economic feasibility." This has led some to state that the rules are burdensome on business, but the burden will not be any greater than under the current rules. The business may opt to perform a "feasibility" analysis that exists under the current rules if cost savings cannot be garnered through the amended rules.

V. Large Business

Large businesses and large property transactions are less likely to employ the new rules and standards since the rules apply to "simple" sites only. As mentioned in the small business section, the PRP will be able to opt for the process that best suits the PRP's site. For a multi-million dollar cleanup involving numerous environmental media, the PRP must use the existing "feasibility" analysis, and it will be cost-effective for the PRP to do so.

In some cases, a large business will deal with a "simple" site or an "operable unit" of a more complex site so the proposed rules may be employed. Again, the business will have the opportunity to make a market decision which approach is best.

VI. Local Government

Local governments will be affected by the proposed rule as both PRPs and as property owners. Like business, the scale of the problem local government faces will determine whether the proposed rule will result in either cost or time savings. Government is often involved in property transactions that must be completed in a timely manner, and the proposed rule may facilitate those transfers by quickly establishing that a particular property has a "clean bill of health."

Likewise, government can be involved with very complex sites where the proposed rule has no application. Local government must be an informed consumer and make the same market determination if the proposed rules are applicable and if they will result in significant dollar or time savings.

VII. Other State Agencies

Numerous state agencies could be affected by the proposed rule as PRPs and in property transfers. The proposed rules may result in an influx of requests from other agencies for DEQ oversight on "simple" cleanups. For example, ODOT may wish for more cleanups prior to acquiring right-of-way; DVA may want more environmental audits and/or cleanups before foreclosing on property. The proposed rules may give these agencies an opportunity to acquire "clean" property in a timely manner.

DEQ LAND USE EVALUATION STATEMENT FOR RULEMAKING

1. *Explain the purpose of the proposed rules:*

   Provide optional numerical cleanup levels and an expedited process to clean up hazardous substances at "simple" sites. Includes differing standards for "residential" and "industrial" exposure factors. Potential application of the "Environmental Hazard Notice."

2. *Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program? Yes __ No X*

2a. *If yes, identify existing program/rule/activity:* Not applicable

2b. *If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules? Yes __ No __*
If "No," explain: Not applicable

2c. *If no, apply criteria 1. and 2. from the other side of this form and from Section III Subsection 2 of the SAC Program document to the proposed rules. In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.*

Environmental cleanup rules and activities have not been determined land use programs through the Department's State Agency Coordination Program pursuant to OAR 660-30-075(2) and OAR 340-18-070. Environmental cleanup activities are neither specifically referenced in the statewide planning goals nor are they reasonably expected to have significant effects on resources or present or future land uses. The Environmental Hazard Notice (OAR 340-130) could be invoked under the proposed rule; in such a case, the mechanisms specified in the SAC Section III, subsection 3 (7) shall apply.

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

Mary Wahl for MSD — Division

Kobeta D Young — Intergovernmental Coordinator

11-25-91 — Date

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Proposed Amendments to Environmental Cleanup Rules
Numerical Soil Cleanup Levels (OAR 340-122-010 to 340-122-110)

Hearing Dates: January 15, 1992
January 16, 1992
January 21, 1992
January 22, 1992
January 23, 1992

Comments Due: January 31, 1992

WHO IS AFFECTED: The general public; Potentially Responsible Parties (PRPs) who wish to clean up releases of hazardous substances which have contaminated soils only ("simple" sites).

WHAT IS PROPOSED: The Department of Environmental Quality (DEQ) proposes modifications to its environmental cleanup rules which will provide optional numerical cleanup levels and a streamlined cleanup process.

WHAT ARE THE HIGHLIGHTS: The proposed amendments will:

- Specify numerical soil cleanup levels for approximately 75 compounds
- Encourage "focused" Remedial Investigations (RIs) to direct resources toward cleanup activities
- Encourage the most cost-effective cleanup technologies
- Eliminate the need to conduct a Feasibility Study (FS) on remedial technologies which are inappropriate for "simple" sites

HOW TO COMMENT:

Public Hearing Schedule:

Portland
January 15, 1992
7:00 - 9:00 p.m.
Portland Building
Room C
2nd Floor
1120 S. W. 5th Ave.

Pendleton
January 16, 1992
7:00 - 9:00 p.m.
Blue Mountain
Community College
Pioneer Building
Room 148
2411 N. W. Carden

Bend
January 21, 1992
7:00 - 9:00 p.m.
Central Oregon
Community College
Boyle Education Building
Room 106
2600 N. W. College Way

Eugene
January 22, 1992
7:00 - 9:00 p.m.
Lane Community College
Health Building, Room 269
4000 E. 30th Avenue

Medford
January 23, 1992
7:00 - 9:00 p.m.
Smullin Center
Lecture Hall 2
2825 Barnett Road

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

11/1/86

FOR FURTHER INFORMATION:

(Continued)

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.

Written or oral comments on the proposed rule changes may be presented at the hearings. Written comments may also be sent to:

Department of Environmental Quality
Environmental Cleanup Division
811 S. W. 6th Avenue
Portland, OR 97204

The comment period will end Friday, January 31, 1992. All comments must be received at the Department no later than 5:00 p.m. on that date.

Copies of the complete proposed rule package including rulemaking statements may be obtained from the Department's Environmental Cleanup Division (ECD) at 229-6170. For further information, contact Brooks Koenig at 229-6801 or call toll-free at 1-800-452-4011.

WHAT IS THE NEXT STEP: The Environmental Quality Commission (EQC) may adopt rule revisions identical to the ones proposed, adopt modified rules as a result of testimony received, or may decline to adopt rules. The Commission will consider the proposed rule revisions at its March 1992 meeting.

PPD\SM35\SM3983

468.020 Rules and standards. (1) In accordance with the applicable provisions of ORS 183.310 to 183.550, the commission shall adopt such rules and standards as it considers necessary and proper in performing the functions vested by law in the commission.

(2) Except as provided in ORS 183.335 (5), the commission shall cause a public hearing to be held on any proposed rule or standard prior to its adoption. The hearing may be before the commission, any designated member thereof or any person designated by and acting for the commission. [Formerly 449.173; 1977 c.38 §1]

465.400 Rules; designation of hazardous substance. (1) In accordance with the applicable provisions of ORS 183.310 to 183.550, the commission may adopt rules necessary to carry out the provisions of ORS 465.200 to 465.420 and 465.900.

Rulemaking

Notice of Rulemaking

340-11-010 (1) Notice of intention to adopt, amend, or repeal any rule(s) shall be in compliance with applicable state and federal laws and rules, including ORS Chapter 183 and sections (2) and (3) of this rule.

(2) In addition to the news media on the list established pursuant to ORS 183.335(6), a copy of the notice shall be furnished to such news media as the Director may deem appropriate.

(3) In addition to meeting the requirements of ORS 183.335(1), the notice shall contain the following:

(a) Where practicable and appropriate, a copy of the rule proposed to be adopted;

(b) Where the proposed rule is not set forth verbatim in the notice, a statement of the time, place, and manner in which a copy of the proposed rule may be obtained and a description of the subject and issues involved in sufficient detail to inform a person that his interest may be affected;

(c) Whether the Presiding Officer will be a hearing officer or a member of the Commission;

(d) The manner in which persons not planning to attend the hearing may offer for the record written testimony on the proposed rule.

Stat. Auth.: ORS Ch. 183 & 468
Hist.: DEQ 69(Temp), f. & ef. 3-22-74; DEQ 72, f. 6-5-74, ef. 6-25-74; DEQ 122, f. & ef. 9-13-76

ECP

COPELAND, LANDYE, BENNETT AND WOLF
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS
ATTORNEYS AT LAW
3500 FIRST INTERSTATE TOWER
PORTLAND, OREGON 97201

(503) 224-4100

FACSIMILE (503) 224-4133

MARK G. COPELAND, P.C.** MITCHEL R. COHEN, P.C.
THOMAS M. LANDYE, P.C. DAVID L. BLOUNT
J. DAVID BENNETT, P.C. DAVID S. CASE, P.C.*
DAVID P. WOLF, INC.* THANE W. TIENSON***
ROBERT B. HOPKINS, P.C. DAVID N. GOULDER
RICHARD L. SADLER, P.C. P. STEPHEN RUSSELL III
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JAMES S. CRANE, P. C.** MARGOT POZNANSKI
ROBERT H. HUME, JR., INC.** ROBERT P. OWENS ****

*ALASKA STATE BAR
**ALASKA STATE AND OREGON STATE BARS
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****ALASKA STATE AND WASHINGTON STATE BARS
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ALASKA OFFICE
550 WEST SEVENTH AVENUE
SUITE 1350
ANCHORAGE, ALASKA 99501
(907) 276-5152

November 7, 1991

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
NOV 12 1991
OFFICE OF THE DIRECTOR

Mr. Fred Hansen, Director
Department of Environmental
Quality
811 S.W. 6th Avenue
Portland, Oregon 97204

Re: ECAC Recommendation to Proceed to Public Hearing on the Proposed DEQ State Superfund Soil Cleanup Rules

Dear Fred:

On October 31, 1991 the Environmental Cleanup Advisory Committee (ECAC) voted unanimously (9-0) to recommend to you that the proposed amendments to DEQ's State Superfund Rules or the Numerical Soil Cleanup Standards (the "Proposed Rule") proceed to public hearing. The unanimous vote of the Committee was conditioned upon the Chair of the Committee bringing to your attention the three major issues which the Committee was unable to resolve, and which the Committee believes will be the source of considerable public comment. It was primarily these three issues, and the votes upon them reflected below, which prevented the ECAC from approving the Proposed Rule.

The issues are:

1. ECAC voted 6-3 against the leachate reference concentration standard as listed in the draft table. (The six wanted a less stringent, but unspecified, leachate concentration.)

2. ECAC voted 6-3 in favor of a total excess site risk of 1×10^{-5} for carcinogens as presented in the draft rule. (The three wanted a more stringent [10^{-6}] total site risk.)

3. ECAC voted 6-3 in favor of having "residential" and "industrial" cleanup levels as presented in the draft table. (The three wanted a single standard as embodied in the residential or more stringent standard.)

Over the past ten months the ECAC has met seven times, reviewed six Issue Papers, edited six draft rules, attended outside meetings on

risk assessment and delved into the complexities of toxicology - all in a quest to develop cleanup standards for simple sites. ECAC believes that numerical standards may result in more and quicker cleanups, but disagrees on the relative costs and merits of the proposed cleanup numbers. Generally, the environmental organizations (represented on ECAC by Oregon Environmental Council and the Oregon Student Public Interest Research Group) have sought more stringent standards, while the balance of the ECAC have either agreed with the Proposed Rule as drafted or viewed the standards in the rule as overly protective and therefore not cost effective.

Despite these disagreements and uncertainties, ECAC recommends proceeding to public hearing on the Proposed Rule, but ECAC wishes to reserve any recommendation on the proposal until after the public comment period. Some further light may come from the public comments. In short, ECAC wants one more opportunity to review both the rule and the science supporting it before the rule is proposed for adoption by the Environmental Quality Commission.

The Environmental Cleanup Advisory Committee's experience with this rulemaking has been one of continued controversy that reflects the members' various constituent interests. The ECAC recognizes that any proposed rule regarding cleanups will be controversial given the nature of the area being regulated, and therefore recommends that process continue with your authorization to proceed to public comment with the Proposed Rule.

Sincerely,

David L. Blount
ECAC Chair

Anne Pendergrass Hill
Acting ECAC Chair (10/31/91)
Vice President and Associate General Counsel, First Interstate Bank of Oregon, N.A.

cc: Mr. Brooks Koenig
ECAC

MEMORANDUM

TO: Environmental Quality Commission

FROM: Alan Kiphut, Hearings Officer A.K.

SUBJECT: Report on the Public Hearing held in Portland, Oregon on January 15, 1992 concerning the proposed revisions to the Environmental Cleanup Rules (OAR 340-122-010 to 340-122-110).

List of Witnesses

38 people attended the hearing.
3 people gave oral testimony.
1 person submitted written testimony.

The people testifying were:
Jean Cameron, Oregon Environmental Council
Quincy Sugarman, OSPIRG
Jim Whitty, Associated Oregon Industries

Comments from those testifying

1. **Jean Cameron, Oregon Environmental Council, Portland, OR.**

I am policy director for the Oregon Environmental Council, and I, too, was on the Environmental Cleanup Advisory Committee that moved both these sets of rules out for public comment, and I want to state tonight my position as indicated by votes on that committee and, also, comment on some of the new provisions on the draft rule.

I should clarify again I am speaking initially on the Environmental Cleanup Rules. Consistent with my vote on the committee, the Oregon Environmental Council (OEC), is opposed to the section OAR 340-122-045(3)(a) which allows the total excess site risk, after cleanup, to be 1 in 100,000 additional cancers for carcinogens. We think this is inconsistent with the standard within the same section which requires "concentration levels for noncarcinogens must be prorated downward when the substances have similar, critical points to keep the hazard index equal to or less than one. We believe that risk from carcinogens which are set at a one in a million level for individual standards should be similarly prorated so that the total site risk also does not exceed one in a million. We are also opposed to subsection 6 of 045, which allows for less stringent cleanup standard for sites that meet the industrial criteria. While I understand that this is based on the concept that other criteria to protect the environment have been met, risk is solely to humans and can be assumed on the basis of worker exposure only. The net result is to allow some sites in Oregon to be less clean than others. Once we allow that concept to pervade public policy, all manner of

exceptions can be argued for with the long-term result that future Oregonians will face a legacy of sites with limited and restricted value.

Finally, OEC is opposed to the proposed exception procedure for meeting the leachate reference concentrations. Opposed to an alternative procedure because it requires a site-specific demonstration that begins to look more and more like a mini-RIFS (remedial investigation feasibility study). OEC has been skeptical all along about the need to move away from the background cleanup standards towards numerical standards, but we were told by the Department as well as industry and banking representatives that a cookbook procedure was needed that would allow cleanups of simple sites. Requiring maximum contaminant levels or (MCLs) which are used for RCRA cleanups is certainly consistent with that cookbook approach, whether we like that approach or not. If a responsible party doesn't like the number provided in the simple site rules, they have the option to go with the background standard and its variance procedure which allows them then to demonstrate that some other number is protective of public health, welfare and the environment. Furthermore, the Oregon Environmental Council would argue that a more conservative number is necessary if the public is to have confidence in the cookbook approach. Considering that MCLs are feasibility based standards which take into account both health and technology considerations, OEC would prefer to see the standards set at the maximum contaminant level goals or MCLGs which are set at a level by EPA which is not harmful to human health.

The Government Accounting Office report from December 20, 1988 noted that states continued to use drinking water standards (MCLs) as groundwater standards. However, the appropriateness of doing so is debatable. We, this is GAO, found that groundwater quality in 91.8 percent of the locations we studied, surpassed drinking water standards for all substances measured. So in examining the applications of adopting drinking water standards as groundwater protection standards, we found that their adoption would allow the potential for degradation of a considerable amount of groundwater. In addition, the report notes that GAO found that certain or anticipated federal drinking water standards of seventeen substances are less stringent than guidelines published both by EPA and the National Academy of Sciences to protect aquatic life. Therefore, applying these standards, again MCLs, to aquifers that replenish particularly sensitive ecosystems could endanger aquatic life. Further, the report notes that environmental fate is not a consideration when EPA sets drinking water standards. So in conclusion, MCLs are not stringent enough in our opinion and they shouldn't be weakened at all in the rules.

2. Quincy Sugarman, OSPIRG, Portland, OR.

Thank you for the opportunity to comment. I am an environmental advocate for the Oregon State Public Interest Research Group. I am also a member of the Department of Environmental Quality's Environmental Cleanup Advisory Committee. The ECAC recommended the proposed rule package on the use of soil standards for cleanup at certain, simple sites for public hearing, without a specific recommendation on those rules. This was in part because after extensive and somewhat spirited discussion, the group had a exhausted its resources and it was unable to resolve a few remaining issues. Remaining issues include some of the ideas, very fundamental to the entire cleanup process. Any simplified process involves a stepping away from the background standard or site specific feasibility standard that has been determined to be protective of public health and the environment. Responsible parties indicated a desire for a more predictable or cookbook-like process, and they indicated that a simplified process would lead to more, faster cleanups, thus reducing the overall environmental and public health risks posed by these sites.

OSPIRG's primary and overall concern is that more, faster cleanups not lead to an overall loss in environmental quality or an increase in risk to public health through lower, less protective cleanup standards. Procedures may be able to be simplified, thus providing the certainty desired by responsible parties, but they should not sacrifice public health, safety, welfare or the environment. If the state is going to go to a streamlined process, the state needs to guarantee the cleanups will indeed be completed more quickly. At a minimum, responsible parties should be held accountable to the extent that if sites are not cleaned up say within a specific, specified time, then that particular site is no longer eligible for this streamlined program.

Generally, on the three unresolved issues that ECAC addressed in its letter to Director Hansen, OSPIRG is in favor of the more stringent alternatives, and I will keep my comments brief because they are essentially echoing Jean Cameron's from the Oregon Environmental Council's.

The leachate reference concentration levels remaining soil contamination should not be able to contaminate groundwater to any level, and we should consider maintaining that at background and certainly at the MCLGs not the MCLs or something weaker that would allow actual contamination of groundwater.

On total excess remaining site risk, or remaining risk, should be at most the one in a million or 1×10^{-6} standard. This whole concept of remaining total site risk is a movement away from the background standard. Any such movement should lead to faster cleanups since it won't require the site-specific RIFS

process, but it should not allow higher risks to be left at sites. One in a million is a commonly used measure. We could certainly prorate or apportion the appropriate risk among a variety of carcinogenic contaminants.

Finally, on having residential and industrial cleanup levels, OSPIRG supports having only one standard, that being the more stringent and protective residential standard. It is virtually impossible to predict all possible future uses of a piece of property or to ensure that a designated property is used as designated.

I have some specific comments that I will be submitting in writing on specific sections of the proposed rules.

3. Jim Whitty, Associated Oregon Industries, Salem, OR.

I'm Jim Whitty with the Associated Oregon Industries, speaking on the soil cleanup rules. I want to thank the DEQ for the process that it has put together with the ECAC committee. There was quite a lot of comment. The objective was kept in mind and the Department staff members ears were always open for our comments and continue to be.

I understand that there may be quite a number of old copies of the rule out and about, and there has been some concern and fear out there based on what they thought is being proposed, so any of you out there in the audience who are going to base your comments on old copies of the rule should beware that it may not be what's before us today. I would hope DEQ would take that into account if additional comments were made following mine.

We opposed the original leachate reference concentration table in an earlier draft of the rule because it did not accurately represent the contaminant fate and transport in the saturated and unsaturated zone. Also, there are a lack of studies to assess a relationship between the test results and potential groundwater impacts. What the TCLP test, using the original table would have done is simply make the cleanups cost prohibitive thus inhibiting the rate of cleanup. This serves no one.

AOI understands DEQ's working for another method to cover the groundwater pathway. Among those being considered, is the concept of making the soil standards even more strict. This concept has the same fallacies as the original leachate reference table. No one knows what level is relevant for groundwater protection as far as setting the levels go. Also, if the soil standards remain significantly more strict, they will also make the process cost prohibitive and thus thwart the rules intent. We support the rule as written meaning an equivalency demonstration that groundwater is not affected.

We also believe the TCLP test can be helpful if the original table numbers are increased by a factor of 20 to represent the dilution that occurs in the groundwater. TCLP does not take in into account dilution. AOI will provide in a written testimony the specific, scientific reasons choosing the factor of 20. The equivalency demonstration approach <u>will</u> encourage cleanups which is the goal of the rule.

We have a couple of other comments on the rule. With regard to the 10^{-6} standards for specific constituents, that may be fine if we weren't looking at the 95 percentile of the risk curve. When we look at the 95 percentile combined with the 10^{-6}, what you have is an absurdity. Essentially nobody will ever engage in that activity for that length of time to then have the one in one hundred thousand chance of getting whatever disease or ill effects may occur to them. It's an absurdity and for that reason, we oppose the 10^{-6} standard. Simply outside of what's now being considered a socially acceptable risk.

The definition of industrial sites needs some consideration. At this point, the rules says that if a site is adjacent to or contiguous with a residential site, then it doesn't get application of the industrial numbers in the table and this has potential for fallacy in a number of ways: 1) you could have a simple border where there is no actual touching of the land between the industrial site and residential site, yet the humans could be very close to the industrial site or look at it from another standpoint, it could be great distance between humans and the industrial site, so rather than apply a border approach if you are touching the border, we would suggest that distance concept be used. A distance from the site, even though it could be impediments to even having humans near the site geographically and that should be taken into account.

And finally, a big concern we have is the potential status of these rules, as ARARs. We would suggest and hope that we have specific language in the rule declaring this rule is not to be considered an ARAR, so there will be no mistake by EPA that this might be considered by an ARAR.

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

EASTERN REGION

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
PUBLIC HEARINGS REPORT

Proposed Amendments to
Environmental Cleanup Rules
OAR 340-122-010 through 340-122-110

and

Proposed Amendments to UST Cleanup Rules
OAR 340-122-205 through 340-122-360

Hearing Date: January 16, 1992
7:00 to 9:00 PM

Location: Blue Mountain Community College
Pioneer Building, Room 148
2411 NW Carden
Pendleton, OR

Hearings Officer: Alan T. Schroeder
ODEQ Eastern Region

ODEQ Staff: Larry Frost, UST Program
Virginia Esmond, UST Cleanup Program
Michael Fernandez, UST Cleanup Program
Brooks Koenig, Environmental Cleanup Division
Holly Hoffnung, Interpreter

Hearings Summary

At 7:00 PM, the scheduled hearings start time, there were no persons present wishing to comment on the proposed amendments. At 7:30 PM, there were still no persons wishing to comment, although Mike Heller of Hermiston, OR did stop in to listen to testimony. With nobody present, Mr. Heller left.

With no comments by 7:30, the hearings for both the UST Cleanup rules and the Environmental Cleanup rules were closed. Instructions were left at the hearings location for anyone wishing to comment in writing on the proposed amendments.

Hearings Officer Alan T. Schroeder Date 21 JANUARY 92

700 SE Emigrant
Suite 330
Pendleton, OR 97801
(503) 276-4063

MEMORANDUM

TO: Environmental Quality Commission

FROM: Alan Kiphut, Hearings Officer A.K.

SUBJECT: Report on the Public Hearing held in Bend, Oregon on January 21, 1992 concerning the proposed revisions to the Environmental Cleanup Rules (OAR 340-122-010 to 340-122-110).

List of Witnesses

7 people attended the hearing.
There was no oral testimony.
No written testimony was submitted.

Comments from those testifying

No testimony was presented.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Brooks Koenig, Hearings Officer

SUBJECT: Report on the Public Hearing held in Eugene, Oregon on January 22, 1992 concerning the proposed revisions to the Environmental Cleanup Rules (OAR 340-122-010 to 340-122-110).

List of Witnesses

20 people attended the hearing.
1 person gave oral testimony.
No written testimony was submitted.

The person testifying was:
Bill Clingman, Gem Consulting, Eugene, OR.

Comments from those testifying

1. Bill Clingman, Gem Consulting, Eugene, OR.

I am also with a small consulting firm here in Eugene. And, in reviewing these proposed levels for soil cleanup, I just have, I guess, a few questions. First of all I want to point out that I recognize the great difficulty involved in setting numerical standards and all the different conflicting interests that come to bear on those kinds of issues, but I think that the people who are setting levels need to understand that simply setting the levels is not the end of the story. Putting regulations on the books by itself doesn't fulfill the mandate of the regulatory agencies and they need to think about what happens after they have got the rules on the books and how these numbers are going to be applied in the real world.

And, in particular, I think they need to look at the realistic applicability of the two level industrial level, residential level kind of approach and whether or not that can be adequately applied. For example, would it be appropriate to apply the stricter residential level in a residential area where nobody has used the groundwater and will never use the groundwater for drinking purposes? Is it appropriate to apply the industrial level to soil cleanup at a site that's within a few hundred yards of a municipal well field, for example? There's a different approach, one that's based at least in part on the nearby number of potential groundwater users and that's the matrix approach that's been used in UST rules, and I just wonder if something like that can't be more thoroughly considered in setting soil cleanup rules for other types of sites.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Rick Silverman, Hearings Officer RS

SUBJECT: Report on the Public Hearing held in Medford, Oregon on January 23, 1992 concerning the proposed revisions to the Environmental Cleanup Rules (OAR 340-122-010 to 340-122-110).

List of Witnesses

19 people attended the hearing.
There was no oral testimony.
No written testimony was submitted.

Comments from those testifying

No testimony was presented.

Revised DEQ Responses (4/23/92)

to Oregon Environmental Council (OEC) Comments

(Oral and Written Comments from Jean Cameron)

Comment:

OEC wants all "simple sites" to be "discrete" sites and not "operable units" of more complex sites.

Response:

The Department believes the "eligibility criteria" adequately delineate what is a "simple site." It may be possible for a single facility to have areas where the "simple site" criteria apply, and to have other areas which should go through the regular ECD process.

Comment:

OEC opposes a total site risk of 1×10^{-5} for carcinogens and recommends a total site risk of 1×10^{-6}.

Response:

The Department elected to set the risk level at 1×10^{-6} per contaminant, but allowed the total site risk to increase to 1×10^{-5} because the Department did not believe cleaning up contaminants to below the 1×10^{-6} level was technically nor financially feasible for many compounds.

Comment:

OEC opposes an "industrial" cleanup level.

Response:

The Department has changed the format of the soil cleanup table (which now specifies a single cleanup level) and has added an appendix and "variance" procedures for a PRP to clean up to maximum allowable concentrations if certain conditions are met. The Department elected to have "residential" and "industrial" maximum allowable levels because it recognizes different exposure levels among different land uses. While the "industrial" levels may be higher than the "residential" levels, all cleanups are protective to the same level (1×10^{-6} per contaminant, 1×10^{-5} per site; hazard quotient and hazard index ≤ 1).

Comment:

OEC opposes the "equivalency demonstration" or exception procedure to the leachate test.

Response:

The Department has clarified the rule as to when the PRP might employ a leaching test or a fate and transport model ("equivalency demonstration") as a variance from the cleanup level in the revised table. The Department believes there are rare instances where site characteristics will vary significantly from the Department's parameters, and such variance procedures would be appropriate. In all cases groundwater must be protected from the leaching risk from residual contamination. The Department will develop guidance for the PRP to know when these exceptional conditions occur.

Comment:

OEC opposes use of the MCLs (Maximum Contamination Levels) and recommends use of MCLGs (Maximum Contamination Level Goals).

Response:

The Department has elected to use MCLs or the 1×10^{-6} level depending on which is the more stringent. Since these rules are to apply before groundwater is affected, the feasibility limits of cleaning up groundwater which are reflected in some MCLs should not be applied.

Comment:

OEC does not believe the MCLs are protective of aquatic life and suggests language to protect surface waters.

Response:

The Department recognizes MCLs are not protective of all aquatic life, but believes the "environmental screen" contained in 340-122-045(4) protects surface water. The Department made the "hydrologically connected" language part of the rule.

Comment:

OEC believes the soil cleanup levels may be ARARs.

Response:

The Department added language to the rule stating the cleanup levels within this rule were not intended as ARARs at more complex sites. The Department believes the cleanup levels are "appropriate and relevant" for simple sites, but not a "requirement" for simple or complex sites. The cleanup levels are optional for "simple sites," but are not to be applied at complex sites. Whether they are "appropriate and relevant" or provisions "to be considered" (TBCs) should vary by the site.

Revised DEQ Responses (4/23/92)

to Oregon State Public Interest Research Group (OSPIRG) Comments

(Oral and Written Comments from Quincy Sugarman)

Comment:

OSPIRG desires short timeframe to complete "simple site" cleanup.

Response:

The Department shares this desire, but does not wish to incorporate any specific timeframe within the rule.

Comment:

OSPIRG opposes <u>any</u> contamination of groundwater after a "simple site" cleanup.

Response:

The Department recognizes that if some residual contamination is left at a site, <u>some</u> contamination may reach groundwater over time. The Departments goal is to assure this contamination level is minimal.

Comment:

OSPIRG prefers the "background" standard, but, if a risk-based approach is taken, wants the risk no higher than 1×10^{-6}.

Response:

The Department has elected to use 1×10^{-6} per contaminant and 1×10^{-5} site risk as the risk levels. Per contaminant levels below 1×10^{-6} would often be impossible to achieve technically or be prohibitively expensive.

Comment:

OSPIRG opposes having "residential" and "industrial" cleanup standards.

Response:

The Department has changed the format of the soil cleanup table and has added variance procedures and an appendix where the PRP may request cleanup levels to an

industrial maximum allowable concentration if certain conditions are met. The Department elected to recognize different exposure levels among different land uses. All cleanups must protect groundwater, and all cleanups are protective to the same level.

Comment:

OSPIRG wishes no reduction in public participation for "simple site" cleanups.

Response:

The Department recognizes that "simple site" cleanups are "remedial actions" and public participation is mandated. However, the Department has observed that public participation has been very limited for existing ECD projects, and anticipates less involvement for "simple sites."

Comment:

OSPIRG opposes risk levels higher than 1×10^{-6}, and does not believe the Department has adequately addressed synergistic effects or degradation by-products.

Response:

The Department assumes additivity for carcinogens, but continues to recognize the possibility of synergism. Synergism is well-documented in very few cases (e.g. smoking and asbestos exposure), but the Department will continue to keep abreast of scientific development.

Comment:

OSPIRG opposes the use of "industrial" cleanup standards since land uses change.

Response:

The Department requires "institutional controls" on industrial property which uses the less stringent cleanup standards and would require additional cleanup if the land use changed.

Comment:

OSPIRG opposes the "equivalency demonstration" in lieu of the leaching test.

Response:

The Department has clarified the rule as to when the PRP might employ the leaching test or a fate and transport model ("equivalency demonstration") as a "variance" from the soil cleanup level in the revised table. The Department believes there are rare instances where the "equivalency demonstration" is appropriate, but the Department recognizes that guidance must be developed to clarify when the demonstration is appropriate.

Comment:

OSPIRG believes the rules should change when the PQLs change.

Response:

The Department recognizes that many of the values used to develop the rule (including the values of PQLs) are subject to change, but rules cannot "automatically" adjust to changes in technology or information. The rules will have to be periodically amended to reflect these changes.

Comment:

OSPIRG opposes the use of MCLs and prefers MCLGs.

Response:

The Department has elected to use MCLs or the 1×10^{-6} level depending on which level is the more stringent.

Revised DEQ Responses (4/23/92)

to Associated Oregon Industries (AOI) Comments

(Oral and Written Comments from Jim Whitty 1/30/92)

Comment:

AOI supports a reasonable protection of groundwater, but opposes a set soil cleanup level to protect groundwater or use of the leachate reference concentration in all cases. AOI favors a broader use of the "equivalency demonstration."

Response:

The Department changed the format of the table and specified a single soil cleanup level, but modified the rule and added an appendix to allow variances to the standards by use of a leachate test or a fate and transport model ("equivalency demonstration"). The Department anticipates that the leaching test and the leachate reference concentration will be the usual route to demonstrate groundwater is not adversely affected, and in rare instances the "equivalency demonstration" will substitute. The Department must produce guidance to clarify when the fate and transport model ("equivalency demonstration") is appropriate and which parameters must be specified.

Comment:

AOI does not believe use of the TCLP as set forth in the rule is appropriate because the TCLP is an "aggressive" test, does not account for attenuation, is a "pulse" test, and does not account for dilution in groundwater.

Response:

The Department recognizes that the TCLP has limitations, but it is a widely available test that uses site-specific soils and contaminants. The Department explored other approaches and has incorporated an appropriate dilution and attenuation factor into the leachate concentration value.

Comment:

AOI proposed a simple model to derive a 20X DAF.

Response:

The Department appreciated the simple model provided, but the Department reviewed other well-documented EPA models (e.g. SESOIL and others) and derived the

compound-specific DAFs.

Comment:

AOI opposes any attempt to specify soil cleanup levels to protect groundwater because conditions vary so greatly around the state. A "generic" level, AOI believes, would be "extremely conservative."

Response:

The Department has re-formatted the table to show a single cleanup level, but the rule also allows variances from this level. When the Department originally proposed a single-value-per-contaminant cleanup table to ECAC, it was rejected. However, the Department received considerable comment that the two-step process in the Public Comment Draft was confusing, so the Department returned to the single-value table. These adjusted soil cleanup levels now seem to avoid misleading responsible parties as to actual cleanup requirements.

Comment:

AOI opposes the 1×10^{-6} risk level and supports a 1×10^{-4} level, or, alternatively, less conservative exposure factors.

Response:

The Department elected to use the 1×10^{-6} per contaminant and 1×10^{-5} per site risk levels as appropriate for "simple sites." The 1×10^{-6} level is at the conservative end of the range of risk specified by the federal Superfund. The exposure factors employed by the Department are the "Reasonable Maximum Exposure" levels used by the federal Superfund.

Comment:

AOI believes the list of 77 contaminants in the table is too narrowly drawn.

Response:

The Department listed the compounds which occurred most frequently in Oregon cleanups and for which we had good toxicological data. The Department agrees with AOI that contaminants in very low concentrations are not "contaminants of concern" so it may be possible for some sites to have some non-listed contaminants present, but still be eligible to clean up under the "simple site" rules.

Comment:

AOI supports the industrial designation, but recommends a 100 meter buffer zone.

Response:

The Department had originally drafted the provision with a 200' buffer zone, but the ECAC rejected that as too rigid. The Department has re-drafted the rule with the 100 meter buffer zone and ECAC has approved the concept.

Comment:

AOI opposes the use of the soil cleanup table as ARARs.

Response:

The Department has added language to the rule stating the cleanup levels in the rule are not intended as ARARs at more complex sites. The Department believes the cleanup levels are "appropriate and relevant" for simple sites, but not a "requirement" for either simple or complex sites. Whether the table values are "appropriate and relevant" or "to be considered" should vary by the site.

Comment:

Headnote 8 in the table and 340-122-045(9) should reflect the availability of the equivalency demonstration.

Response:

The Department agreed and modified the rules as well as the headnotes. Again, the Department notes the "equivalency demonstration" or fate and transport model is a variance and should be the rare exception rather than the norm.

Revised DEQ Response (4/23/92)

to EPA Region 10 Comments

(Written Comments from Carol Sweeney, Health & Env. Assessment)

Comment:

The calculations are correct based on current data, but will the rule adjust as toxicological data changes or EPA's Standard Default Exposure Factors change?

Response:

The Department recognizes that potency factors and/or exposure factors may change, but the proposed rule is using the best available information. The Department will amend the rule as better data becomes available, but the rule cannot "automatically" adjust to new information by reference.

Comment:

The oral reference dose for mercury was based on a salt of mercury which is different than elemental mercury. How will the department handle the rare occurrence of elemental mercury?

Response:

The rule requires the characterization of the site must be done in a manner acceptable to the Department. The rule is <u>not</u> self-implementing; it requires review before the PRP proceeds with the cleanup. This screening process is designed to prevent misapplication of the rule.

Comment:

The particulate inhalation pathway assumptions are very conservative; is it appropriate to use this model for chromium and arsenic?

Response:

The Department changed its particulate inhalation assumptions to be consistent with the most recent EPA guidance after the Public Comment Draft was released. This caused some changes in the cleanup table. The Department continues to recognize the conservative assumptions remaining in the model and the problems with the speciation of chromium. The Department believes, however, the conservative assumptions are warranted for cleanup of simple sites as the PRP can always "opt

out" to model the site under the regular "feasibility" analysis.

Comment:

The volatile inhalation model was used to develop preliminary remediation goals; is it appropriate to develop "final" cleanup standards for simple sites?

Response:

While the volatile inhalation model numbers may be conservative, the cleanup numbers in the table were usually those which protected groundwater against leaching contamination. The Department used models to determine the maximum amount that could be left, but the PRP must always protect groundwater. The conservative assumptions in the model give the Department another check that the residual levels are protective.

Comment:

Issue Paper #2 states "Table 1 protects other elements including other biological receptors," but the table appears to be based solely on human health risks. Does the table protect all receptors?

Response:

No, the table does not protect all receptors, but the rule is intended to protect receptors other than humans by providing "environmental screens" which would limit when the table may be applied. (Screens to protect surface water and sensitive environments). The original "Table 1" when Issue Paper #2 was drafted considered the possible application of water quality criteria, but later versions of the table (including the proposed table in the Public Comment Draft) are based on the environmental screen/human health criteria approach.

Comment:

The rule lacks a presentation of the overall logic and how the details fit together.

Response:

Earlier drafts of the rule had some explanatory materials, but the ECAC wished to excise precatory material. The rule has some explanatory language added, but the Department will be developing guidance materials and "fact sheets" about the rule and will incorporate the summary paragraph provided.

Comment:

Some terms are used before they are defined and some are defined without being used. This is confusing.

Response:

The Department used a "glossary" during the development of the rule so laypersons understood some of the concepts used to develop the table. The "glossary" was changed to "definitions" and placed after the rule to keep focus on the rule rather than on nuances in the definitions. The Department will consider shifting the location of the definitions and paring down the number of terms defined.

Comment:

Will compliance be determined by all samples passing, an average passing score or by statistical analysis.

Response:

The Department is preparing guidance on appropriate statistical analysis to determine compliance.

Comment:

To what depth must the contaminated soils be cleaned?

Response:

The Department expects the soils to be cleaned throughout the soil column.

Comment:

What "triggers" a cleanup? 10^{-6}? 10^{-4}?

Response:

A "hazardous release into the environment" triggers a cleanup. The Department is <u>not</u> setting "triggers" based solely on human health with this rule package. It is possible for cleanups to be triggered below the 10^{-6} level (e.g. adversely affecting aquatic life although below human health concerns) or not be triggered if slightly above 10^{-6} (e.g. massive amounts of contamination at 2×10^{-6} that will rapidly degrade). The Department would agree any site with a greater than a 1×10^{-4} risk would trigger a cleanup, but "triggers" are not a part of this rule package.

Comment:

Will additional guidance be available?

Response:

Yes. The Department will provide a "fact sheet" describing in general how the rule was derived and how it is to be applied; how to determine "background;" sampling protocol; and compliance guidance.

DEQ Responses (No Changes 4/23/92)

to EPA Region 10 Comments

(Written Comments from David Frank, Hydrogeologist)

Comment:

Supports having flexibility in the leaching test as long as the Department can specify the test.

Response:

The Department recognized the limitations of the various leaching tests and wished to provide some flexibility to the PRP. The rule is <u>not</u> self-implementing and will require Department approval in the selection of the leaching test.

Comment:

The guidance document on background needs better guidance on sampling protocol and should require a larger sample (5 samples is inadequate).

Response:

The Department agrees the draft document on background needs additional development, and sampling protocols need to be developed.

Comment:

The rule should allow replacement of the cited protocols for PQLs.

Response:

The Department will update the rule periodically, but will not amend the rule to "automatically" update the protocols by reference.

Comment:

Support the equivalency demonstration, but the factors considered must be broad enough to accurately model the site characteristics.

Response:

The Department is examining various models and the factors within those models to

assure that any equivalency demonstration adequately addresses the site conditions.

Comment:

Opposes a "generic" dilution and attenuation factor and favors broader use of the "equivalency demonstration" to derive a site specific DAF.

Response:

The Department expects the "equivalency demonstration" to be the rare exception, but is developing a compound-specific DAF to modify the leachate reference concentration.

Comment:

The rule should account for ecological risk.

Response:

The rule contains "environmental screens" which preclude the use of the rule and cleanup levels if surface water or sensitive environments are affected. The Department was unable to craft a rule which employed quantitative ecological risk factors and remained both "simple" and "achievable."

Revised DEQ Responses (4/23/92)

to The Boeing Company Comments

(Written Comments from K.J. Hendrickson)

Comment:

Boeing believes meeting all five "eligibility criteria" would be onerous, and they will require too much time to secure DEQ approval.

Response:

The Department recognizes the eligibility criteria are rigorous, and additional DEQ staff will have to be available. While these sites are "simple" sites, the Department has an obligation to protect human health and the environment rather than simply speeding up cleanups. The rule is not "self-implementing." The Department has hired additional staff to process voluntary cleanups so delays caused by Department inaction should be minimal.

Comment:

Boeing believes the rules for soil cleanup should apply even if groundwater contamination is involved.

Response:

The Department disagrees. If groundwater is involved both the cleanup standards and technology become much more complicated and are inappropriate for cleanup under the "simple site" rules.

Comment:

Boeing believes the table should be expanded to cover certain degradation products and certain compounds typical with petroleum hydrocarbon releases.

Response:

The table was derived by selecting compounds which frequently appeared at Oregon cleanups and for which there was good toxicological data. A few compounds were added to the list even when the Department did not have as good as toxicological data as desired because the compounds appeared so frequently. However, the Department is reluctant to expand the list of compounds at this time because of the ever increasing uncertainty as compounds are added.

Comment:

Boeing does not believe knowing the source of the contamination should be an essential eligibility criterion.

Response:

The Department wants to make sure the source of the contamination does not continue to release contamination. The Department does not anticipate that this "source" requirement would exclude all sites where past practices cannot be identified with great specificity.

Comment:

Boeing opposes limiting "simple sites" to ten or fewer contaminants of concern.

Response:

The Department may allow more than ten contaminants of concern to be cleaned up under these rules. Ten or fewer contaminants are more likely to qualify as a "simple" site; the greater the number of contaminants the less likely the site is "simple."

Comment:

Boeing wants the definition of "background" clarified.

Response:

The Department agrees that the "background" guidance needs to be augmented, but does not necessarily agree with the "area background" concept suggested by Boeing.

Comment:

Boeing believes the rules should apply even if surface water or sensitive environments are affected.

Response:

The Department disagrees. The cleanup levels do not adequately protect aquatic life or sensitive environments if there is significant runoff or discharge to surface waters. Rather than setting cleanup levels at very low concentrations based on the worst case assumption that surface water or sensitive environments may be affected, the Department elected to screen sites and allow only those that do not adversely affect surface water or sensitive environments to use the rules.

Comment:

Boeing opposes the "two-step" cleanup process where the PRP must be below a maximum contaminant level and pass a leachate test.

Response:

The Department has changed the format of the table. Now a single cleanup standard is specified and "variances" from these numbers are permitted. The Department set the standards at the conservative end of the spectrum (similar to "reasonable maximum exposures") to follow its mandate to be protective. Even though the Department eliminated the two-step process, the PRP may re-introduce site-specific factors into the cleanup standard by performing the TCLP or a fate and transport model.

Comment:

Boeing recommends a dilution and attenuation factor (DAF) of 100X.

Response:

The Department disagrees. The 100X multiplier suggested by Boeing is the multiplier used by EPA to characterize hazardous waste. The Department finds it unacceptable to leave hazardous waste at a site that is "cleaned up" under the rules.

Revised DEQ Responses (4/23/92)

to Portland General Electric Comments

(Written Comments from Dennis Norton)

Comment:

PGE supports the voluntary cleanup idea, but believes the cleanup levels for PCBs are so low that PRPs will not use the proposed rule but opt for the feasibility analysis.

Response:

The Department recognizes that the cleanup level in the proposed rule for PCBs is one order of magnitude lower than the cleanup level at many PCB cleanup sites. The Department attempted to be consistent in the application of the one in one million risk level (1×10^{-6}) which is more stringent than many Superfund cleanups.

Comment:

PGE opposes the use of the proposed rules as ARARs.

Response:

The Department has modified the rule to state the table values are not intended as ARARs at more complex sites. The Department believes the cleanup levels are "appropriate and relevant" for simple sites, but not a "requirement" for either simple or complex sites. Whether the standards are "appropriate and relevant" or provisions "to be considered" (TBCs) should vary by the site.

The Department would like to note that Ms. Terry Lumapas of Pacific Power and Light expressed comments similar to PGE. Ms. Lumapas believes the proposed PCB levels are too low and that these standards will be misapplied at more complex sites.

Revised DEQ Responses (4/23/92)

to Hart Crowser Comments

(Written Comments from Ross Rieke)

Comment:

Hart Crowser supports the idea, but believes some of the underlying assumptions are too conservative. In particular, the gastrointestinal absorption rate for PCBs appears to be 100% while certain EPA literature supports 30%.

Response:

The Department does not need to adjust the absorbed dose because the toxicity value used is not in the form of an absorbed dose. The model used by the Department does not specify a certain gastrointestinal absorption rate but uses a default soil ingestion rate coupled with a slope factor and exposure factors.

Comment:

Hart Crowser is concerned about misuse of the rules. There is concern that the only "acceptable" cleanup levels for even the complex sites will be the stringent standards proposed for "simple sites."

Response:

The Department has modified the rules to state the table values are not intended as ARARs at more complex sites. The Department has attempted to clarify when these standards apply, but has noted potential "misuse" or "misunderstanding" of the rules for being both too stringent (applying the standards at complex sites) and too lax (not protecting groundwater at simple sites). The Department will draft a general "fact sheet" to guide PRPs in addition to the warnings already within the rule.

DEQ Response (No Change 4/23/92)

to Soiltech Comments

(Written Comments from Jeff Ward)

Comment:

Soiltech recommends the rules be amended to allow for solidification/stabilization via the pozzolanic concrete process. Although contaminants may remain at the site, this process greatly reduces leaching of the contaminants.

Response:

The Department does not specify any treatment technology within the rules, but does require the reduction of contamination to levels no greater than those specified in the soil cleanup level and passing of the leaching test(s).

DEQ Response

to George D. Ward & Assoc. Comments

(Written Comments from George D. Ward)

Comment:

George D. Ward makes the same recommendation as Soiltech regarding solidification/ stabilization.

Response:

The Department response is the same as above.

DEQ Responses (Unchanged 4/23/92)

to Oil Re-Refining Co. Comments

(Written Comments from Bill Briggs)

Comment:

The Department must show what technology will achieve the cleanup levels.

Response:

The Department does not specify the technology that must be used; the PRP may propose any technology that will achieve the levels.

Comment:

The Department must prove the cleanup levels are correct.

Response:

The Department used the best available information to develop the cleanup levels and listed those assumptions in the staff report.

Comment:

The lead levels in the table are too low since there are multiple sources of lead and lead is widely distributed in the environment.

Response:

The Department used EPA's Uptake/Biokinetic model to determine the lead cleanup levels. The Department recognizes the wide deposition of lead in the environment, and expects the table to be used where there is a documented release of lead into the environment.

Comment:

The Department should provide financial assistance for cleanups.

Response:

The Department is providing limited financial assistance for underground storage tank owners who resell fuel to the public. The Department cannot fund cleanup of all hazardous materials.

Comment:

The cleanup levels are too protective and should not be below federal levels.

Response:

The Department recognizes that setting a level of protection is a policy decision and has recommended the 1×10^{-6} level for carcinogens and a hazard quotient ≤ 1 for non-carcinogens which is consistent with federal standards.

Revised DEQ Responses (4/23/92)

to GEM Consulting Comments

(Written Comments from Steve Newcomb; Oral testimony from Bill Clingman; Phone Comments and Subsequent Written Comments from Gunnar Schlieder)

Mr. Newcomb's written comments were directed primarily at the UST groundwater rule amendments. However, oral testimony from Mr. Clingman and a phone conversation and subsequent letter from Mr. Schlieder related to the soil cleanup numbers.

Comment:

The soil cleanup numbers for many of the compounds, especially many of the volatiles, are too high.

Response:

The Department modified the format of the table and the newly-published soil cleanup levels are much lower than the maximum allowable concnetrations (which are now a part of the appendix). The Department always recognized that the original "soil cleanup numbers" (now the maximum allowable concentrationss) could not stand on their own as final cleanup numbers; the cleanup also had to pass the leaching test which would have resulted in lower concentrations (especially for the volatiles). The Department has now pre-calculated the cleanup level to protect groundwater.

Comment:

The leachate reference concentrations for many compounds (e.g. BTEX) would result in undrinkable water (due to taste and odor) even if the water would be "safe" to drink.

Response:

The Department based the cleanup levels to consistently protect human health to the 1×10^{-6} level (which was sometimes lower than the MCL), but the department did not use the secondary MCLs (to protect taste, color and lack of odor). The proposed numbers are soil cleanup levels, not groundwater cleanup levels. Should groundwater become contaminated, the PRP may have to clean up the groundwater to more stringent levels than may be suggested by the leachate reference concentration.

Comment:

The proposed industrial/residential split for cleanup standards won't work.

Response:

The Department modified the format of the table, and now the "residential" and "industrial" cleanup levels are forms of "variances" from the soil cleanup level. The Department recognized throughout all the drafts that the standards could not be blindly applied without consideration of the surrounding circumstances. Under the earlier draft of the rule both the "residential" and "industrial" cleanups had to pass the same leachate test. Now the soil cleanup level protects groundwater. Then as now, there is no greater level of contamination permitted to an aquifer under an industrial site than to one under a "residential" site. The rules do not "write off" an aquifer for drinking water use even if the water is currently non-potable; the rules protects the water supply as a potential drinking water supply.

DEQ Responses (Unchanged 4/23/92)

to Moreland Oil Comments

(Written Comments from Dennis G. Moreland)

Mr. Moreland's comments were directed primarily at the UST groundwater rules, but he raises issues which are pertinent to the soil cleanup rules as well.

Comment:

The new rules will drive many small businesses out of business.

Response:

The Department realizes that many environmental programs result in significant costs to businesses. The intent of the regulations are to protect human health and the environment both now and the future, but implementing these rules may have a significant impact on businesses now even if costs are passed on to the consumer later. The soil cleanup rules attempt to allow the PRP the most cost-effective option which assures a protective cleanup. Although these rules may save money compared to the existing process, there may be instances where the business will not survive.

Comment:

Why do PRPs have to clean up hazardous substances at their facilities, but the highway department doesn't have to clean up all the contaminated soil along the highway?

Response:

The environmental cleanup rules apply to "releases of hazardous substances into the environment" with certain exceptions including "emissions from engine exhaust . . ." The Department realizes that everything cannot be cleaned up at once, but that cleanup and prevention are incremental processes. When certain contaminants are recognized as being harmful, the Department should act to address the worst of those threats. As we learn more about certain compounds (e.g. lead and PAHs), it makes more sense to take steps to eliminate risks from those compounds both for now and the future. When we can identify both a significant risk and who is responsible for that risk, we try to act on a "polluter pays" principle. Sometimes, either the risk is so small or the pool of responsible parties so broad (e.g. the driving public) that we elect not to clean up even if the site is not as "clean" as we would wish.

Revised DEQ Response (4/23/92)

to AOI Pre-Public-Comment Draft Comments

(Sweet-Edwards/EMCON Presentation 11/27/91)

Comment:

Leachate levels will drive many cleanups.

Response:

True. Leachate level is to protect groundwater and will often be lower than the "direct contact" level.

Comment:

41% of leachate levels are below PQL.

Response:

True. Under the rules, the PRP may clean to the PQL level (the PQL acts as a "variance" from the health-based leachate level).

Comment:

TCLP is an "aggressive" test for waste characterization.

Response:

The TCLP is used for waste characterization. The "aggressiveness" of the procedure is similar to the Synthetic Precipitation Leaching Procedure (allowed for within the rules) and may be less aggressive than some or more aggressive than some. TCLP is widely used and recognized.

Comment:

Leachate test assumes no dilution or attenuation.

Response:

True. The rule does not model or factor attenuation or dilution. Requiring the PRP to run a model would complicate the rule. The Department incorporated a default dilution formula in the final rule.

Comment:

The leachate reference concentration is based on consumption of 2 liters/day/30 years.

Response:

True. Rule uses CERCLA Reasonable Maximum Exposures (RMEs) which have a default of 30 years rather than SDWA's or RCRA's 70 years.

Comment:

The comparison table generated by AOI shows that the leachate reference concentration would require cleanups more stringent than the "industrial soil cleanup level."

Response:

True. This is especially true for the volatiles. One reason the TCLP was selected is because of the great variability of how much one compound leaches in a soil type (e.g., the AOI table shows 1/13 of toluene leaches to groundwater but only 1/490 of pentachlorophenol leaches). The "industrial soil cleanup levels" were always intended to be the maximum residual amount, not an ideal cleanup level. The revised cleanup table states these lower values and allows a variance to the higher levels.

Comment:

The rule uses default values for the particulate emission model.

Response:

True. The rule used default values rather requiring site-specific modeling. As better data or factors become available the Department will modify the model. The PRP retains the option to conduct site-specific modeling.

Comment:

The volatilization model is draft and uses default values.

Response:

True. The draft model was the best model available; as better information becomes available the Department will incorporate it.

Comment:

The Uptake/Biokinetic Model for lead is a draft model.

Response:

True. The draft model was the best available.

Comment:

The rule adds hazard quotients and requires pro-rating to keep the hazard index ≤ 1.

Response:

True. The rule uses a default additivity assumption for non-carcinogens with the same critical endpoint.

Comment:

Limitations on methodologies: (1) No Oregon specific or site specific values; (2) Default values used; (3) Draft models may change; (4) All assumptions are the most conservative; and (5) Additivity assumptions add conservatism.

Response:

(1) True. Used Reasonable Maximum Exposure (RME) default values ("feasibility" study still allows site-specific).

(2) True. Repeat that default values were used.

(3) True. Used best available models.

(4) Not all assumptions are the most conservative. As noted above, used the Reasonable Maximum Exposures (RMEs) which are "conservative" but not the most conservative.

(5) Assumed additivity for carcinogens and non-carcinogens with similar critical endpoints. Assumed additivity for multiple substances, but did not lower concentration levels below the most stringent exposure pathway. Additivity is the "middle ground" between synergism and antagonism.

Comment:

In many cases the proposed numeric soil cleanup levels do not represent the final cleanup level.

Response:

True. The Department modified the format of the table so the likely cleanup value was listed with the possibility of variances from that number. In most cases in the earlier drafts of the rule, the cleanup level was below the maximum residual level represented by the soil cleanup levels. The revision to the table and rule reduced the confusion around these issues.

Comment:

The rule could result in more stringent cleanups at simple sites than complex sites.

Response:

True. The simple sites should be easier to clean (soil only) so the residual risk will probably be lower at simple site than at complex sites.

Comment:

The conservative numbers will result in higher costs and reduced participation.

Response:

The cleanup levels are not as conservative as "background" (0 for any synthetic) and the PRP retains the options to clean to "lowest feasible concentration" so the cleanup costs should be lower, not higher.

Comment:

The proposed rules may result in many low risk sites requiring cleanup.

Response:

The rules do not change the threshold for cleanup. Cleanup is required for "releases of hazardous substances into the environment" . . . subject to certain exceptions. The proposed rules establishes cleanup levels rather than new action levels.

Comment:

The proposed cleanup rules are complex and may discourage participation.

Response:

Some earlier versions of the rule were more simple but less flexible; other versions were flexible and complex. The current version is the "middle ground" where there is some site-specific flexibility (e.g. the leaching test "variance") with some maximums (the maximum residual levels).

Revised DEQ Responses (4/23/92)

to PTI Pre-Public-Draft Comments

(Written Comments from Dave Watson)

Comment:

Using the SPLP or TCLP to protect groundwater and regulate soil cleanups may be inappropriate as: 1. The rule is unclear when the test must be conducted; 2. The TCLP does not accurately represent fate and transport mechanisms; and 3. The rule does not contain sampling guidance.

Response:

The Department recognized limitations with the TCLP or other leaching tests and modified the rule to protect groundwater. The earlier draft of the rule stated the cleanup level was determined by a two-step process wherein a maximum soil concentration must be met, but once that level was reached, the residual concentration must "pass" the leaching test. Determining the "passing" level may involve iterative cleanups. While the Department anticipated the PRP would determine what the likely "passing" concentration will be early in the cleanup process, there was considerable confusion over this two-step process so the Department modified the rule.

The TCLP or SPLP is an admittedly simple test which does not account for the myriad of factors which may affect fate and transport. However, the TCLP does take into account the site-specific factors of soil type and constituent characteristics to provide a crude measure of leachability. The Department compared the results of the TCLP to more comprehensive models to determined that the TCLP was an adequate predictor under some conditions, but a more robust fate and transport model was required under other circumstances. The Department modified the rule to allow a "variance" using a fate and transport model.

The Department did not include sampling guidance in the rule as the sampling should be appropriate for the complexity of the site. Sampling guidance within the rule would be too much detail, but such guidance does need to be provided.

Comment:

The risk for carcinogens should be set at 1×10^{-5} rather than setting a per contaminant risk at 1×10^{-6} and a site risk at 1×10^{-5}.

Response:

The Department believes the setting of risk levels is a policy decision, and the Department recommended the split levels rather than a uniform level for the following reasons: (1) The Department wanted to be at the conservative end of the range (1×10^{-4} to 1×10^{-6}) found "acceptable" at Superfund cleanups since "simple" sites should be relatively easy to clean to the more stringent level. (2) Nonetheless, there are very difficult technological and economic issues cleaning up compounds below the 1×10^{-6} level (which would be necessary if there were multiple cancer-causing compounds at a single site) so the Department elected to allow a maximum site risk of 1×10^{-5}. This does not allow a PRP with a single contaminant to raise the per contaminant risk level; each contaminant must be cleaned to the 1×10^{-6} level. (3) The Department elected to pro-rate the non-carcinogens (based on a hazard index of one) since this level appeared to be achievable without the same technological and financial constraints.

Comment:

PTI opposes the limit of ten compounds to be a "simple" site.

Response:

The Department agreed there should not be a "bright line" standard as to the number of compounds which constitute a "simple" site and re-drafted the rule to indicate more than ten compounds may qualify.

Comment:

PTI believes the table and leachate test does not adequately protect groundwater from contamination from volatiles and other mobile constituents.

Response:

The Department agreed the earlier-drafted soil cleanup levels may have been misleadingly high and the TCLP may not have accurately reflected the threat to groundwater at such high levels. The Department lowered the maximum contaminant levels in the soil column to more adequately protect groundwater.

Comment:

PTI believes the table and rules will be "misused" as some values are too high (e.g. the volatiles already mentioned).

Response:

The Department recognized the "two-step" process confused some readers who mistakenly believed that once the soil numbers were met the cleanup was complete. As noted above, the Department modified the rule by reducing some of the very large numbers to adequately protect groundwater, but allowed "variances" if those number were unduly restrictive.

Comment:

PTI believes the proposed rules are inconsistent with the UST matrix rules, especially for BTEX.

Response:

The Department notes the UST matrix numbers and the proposed table are different, but not necessarily inconsistent. The UST matrix pre-calculated how much BTEX might leach to groundwater and based cleanup levels on TPH (total petroleum hydrocarbons); the earlier-proposed rules required an empirical test (the TCLP) with the site soils and constituents. As noted above, the Department modified the rule and reduced the soil cleanup numbers to eliminate misuse.

Comment:

PTI would like to review the technical basis for the rule.

Response:

The Department provided the comprehensive staff report with that data to PTI and all who requested the detailed data.

Comment:

The rule is too simplistic, and if it is corrected to adequately protect groundwater under "worst case" conditions, it will be too conservative. PTI recommends a matrix approach.

Response:

The Department does not believe a matrix approach is workable for "simple" sites as the number of factors and sensitivity of those factors results in a matrix that is as complicated as the current process. The Department has strived to be both "conservative" and "reasonable" by incorporating "reasonable maximum exposure" factors and requiring a "reality check" by using site-specific empirical data.

DEQ Response (Unchanged 4/23/92)

to Astro Western Comments

(Written Comments from Glenn Zirkle)

Mr. Zirkle's comments were directed primarily at the UST groundwater rule amendments, but two of those issues will be addressed as they relate to the soil cleanup standards.

Comment:

The Department should delay implementation of the rules until verifiable cost-benefit results have been ascertained.

Response:

For the soil cleanup standards, the PRP will make the cost-benefit decision whether to clean up under the soil cleanup standards or to proceed with the full "feasibility" analysis. Both sets of the proposed rules (ECD soil standards or UST groundwater standards) are to protect human health and the environment, but under both sets of existing rules, the PRP may take into account economic feasibility (in either ECD's "feasibility" analysis or the UST Corrective Action Plan).

Comment:

The cleanups may result in certain "institutional controls" (e.g. deed restrictions) which affects future land use so the Department's land use evaluation statement is contradictory.

Response:

The Department notes that deed restrictions or environmental hazard notices may affect future land uses, but these restrictions were not deemed to be *significant* effects on present or future land uses. Most often the land is already zoned industrial, and the PRP has the option to clean the property so institutional controls are not needed.

COPELAND, LANDYE, BENNETT AND WOLF
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS
ATTORNEYS AT LAW
3500 FIRST INTERSTATE TOWER
PORTLAND, OREGON 97201

(503) 224-4100

FACSIMILE (503) 224-4133

ALASKA OFFICE
550 WEST SEVENTH AVENUE
SUITE 1350
ANCHORAGE, ALASKA 99501
(907) 276-5152

MARK G. COPELAND, P.C.**
THOMAS M. LANDYE, P.C.
J. DAVID BENNETT, P.C.
DAVID P. WOLF, INC.*
ROBERT B. HOPKINS, P.C.
RICHARD L. SADLER, P.C.
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DAVID N. GOULDER
P. STEPHEN RUSSELL III, P.C.
MARGOT POZNANSKI
ROBERT P. OWENS ****
KARI L. BAZZY *
LAURA H. KOSLOFF

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ALL OTHERS OREGON STATE BAR ONLY

May 12, 1992

Chair William W. Wessinger
Environmental Quality Commission
811 SW 6th Avenue
Portland, Oregon 97204

Re: Recommendation to Adopt Amendments to the Environmental Cleanup Division's Cleanup Rules (OAR 340-122-010 to 340-122-110) including the Numerical Soil Cleanup Rules

Dear Chair Wessinger and Commission Members:

The Environmental Cleanup Advisory Committee (ECAC) recommends the Numerical Soil Cleanup Rules (OAR 340-122-045 and 046, including the Soil Cleanup Table and Appendix 1) and amendments to OAR 340-122-010 to 340-122-110 be adopted as rules.

This recommendation comes on a unanimous vote (10 to 0) with the following qualifications. ECAC requests that EQC direct the Department to return to ECAC in eighteen (18) months from the effective date of the rule with information on the following issues:

1. Have these rules encouraged or discouraged cleanup activities? How many cleanups with Department oversight have been performed under these rules? Is there evidence that "independent" cleanups (without Department oversight) have employed these rules to clean up? If more cleanups have occurred, how many of the cleanups met the table standards, and how many used the exception processes?

2. Have cleanups under this rule been conducted at "simple sites" as intended? Have empirical data verified the effectiveness of the rule? Have sites that posed risks to the environment or were too complex been appropriately screened out of the process? If screened out, were they cleaned up under the currently existing rules?

3. Are there field data, new toxicological data, new models (including environmental risk models), new exposure parameters, or other new scientific data or methodologies (other than risk assessment) that should be incorporated into the cleanup table, appendix or rule?

4. Should any compounds be added or deleted from the table and appendix? Should compounds not currently on the table be accepted for cleanup under the rule if those compounds are cleaned up to background or the practical quantitation level (PQL)?

5. Are there other changes to these rules that will result in getting more sites cleaned up faster while still protecting human health and the environment?

Many ECAC members were reluctant to endorse risk assessment and its current over-reliance on human health concerns as the methodology to determine cleanup levels. Some members preferred keeping the "background" standard while others argued for a percent reduction approach. Despite these differences, most ECAC members believed risk assessment was the best tool currently available.

ECAC endorses the current rule package as a means to facilitate more environmental cleanups that protect human health and the environment. ECAC asks the Commission to adopt the rule and amendments and to direct the Department to return to ECAC in eighteen months to evaluate the progress and to modify the rules as necessary.

Sincerely,

David L. Blount

David L. Blount
ECAC Chair

cc: ECAC
Fred Hansen, Director, DEQ
Mike Downs, ECD Administrator, DEQ

Oregon

ENVIRONMENTAL QUALITY COMMISSION

REQUEST FOR EQC ACTION

Meeting Date: June 1, 1992
Agenda Item: D
Division: ECD
Section: UST Cleanup

SUBJECT:

Revisions to Underground Storage Tank (UST) Cleanup Rules (OAR 340-122-205 to 340-122-360) to incorporate groundwater cleanup standards - Request for Rule Adoption.

PURPOSE:

The purpose of these rule amendments is to establish groundwater cleanup standards, provide clear direction and foster consistent cleanup of UST releases and protection of public health, safety, welfare 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
_X_ Adopt Rules

Proposed Rules	Attachment A
Rulemaking Statements	Attachment B
Fiscal and Economic Impact Statement	Attachment C
Public Notice	Attachment D
DEQ Land Use Evaluation	Attachment E

___ 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

___ Approve Department Recommendation

___ Variance Request	Attachment ___
___ Exception to Rule	Attachment ___
___ Informational Report	Attachment ___
___ Other: (specify)	Attachment ___

DESCRIPTION OF REQUESTED ACTION:

The proposed rule amendments have been developed in order to provide UST facility owners/operators with groundwater cleanup standards and associated procedures.

The Department requests EQC adoption of the proposed rule amendments.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: _____ Enactment Date: _____	Attachment ___
___ Statutory Authority: ORS 465.200 to 420, ORS 466.705 to 835	Attachment ___
___ Pursuant to Rule: _____	Attachment ___
___ Pursuant to Federal Law/Rule: _____	Attachment ___
___ Other:	Attachment ___

___ Time Constraints: (explain)

DEVELOPMENTAL BACKGROUND:

_X_ Advisory Committee Recommendation/Background	Attachment F
_X_ Hearing Officer's Report/Recommendations	Attachment G
_X_ Response to Testimony/Comments	Attachment H
___ Prior EQC Agenda Items: (list)	Attachment ___
___ Other Related Reports/Rules/Statutes:	Attachment ___
_X_ Supplemental Background Information	
Submitted written comments	Attachment I
Submitted supplemental information	Attachment J

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The regulated community has concerns about the cost of additional sampling/analysis and cleanup. These issues surfaced in meetings with the Environmental Cleanup Advisory Committee (ECAC), as well as at the public hearings, and were weighed against protection of public health, safety, welfare and the environment.

The Department has made significant revisions to the first version of the proposed amendments in an effort to balance costs to the regulated community with public and environmental protection. The ECAC supported these proposed rule amendments going forward for adoption by an 8-3 vote.

PROGRAM CONSIDERATIONS:

The UST Cleanup Program is primarily concerned with establishing cleanup standards which are 1) protective of public health, safety, welfare and the environment, 2) achievable, and 3) reflect consideration of costs to the regulated community.

Over one year has been spent working through these issues with a work group and the ECAC, and the proposed rule amendments reflect these considerations.

There are no additional costs or staff requirements for the program to implement these amendments.

ALTERNATIVES CONSIDERED BY STAFF:

1. Develop comprehensive numeric groundwater cleanup standards and associated rules and guidance for petroleum UST releases.

2. Use only the federal drinking water standard for Benzene as a groundwater cleanup standard.

3. Make no rule amendments and allow sites to be evaluated on a case-by-case basis.

STAFF RECOMMENDATION FOR ACTION, WITH RATIONALE:

Staff recommends alternative #1.

As the UST Cleanup Program has implemented cleanups over the past three years, it has become apparent that numeric standards would facilitate the process for the Department and the facility owner/operator.

Using only Benzene as a cleanup standard does not ensure protection of public health, safety, welfare and the environment because additives, PAHs and other contaminants of concern would not necessarily be identified or remediated. Some rule amendments are necessary in order to clarify the Department's expectations on cleanup of groundwater from petroleum UST releases.

For these reasons, staff recommends that the Commission adopt the proposed rule amendments.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The development of these rules is consistent with the Strategic Plan, Agency Policy and Legislative Policy.

ISSUES TO RESOLVE:

1. **The Commission should direct the Department to return to the ECAC within 18 months and report on:**

   a. Any technological advancements which warrant adjusting the cleanup standards for carcinogenic PAHs;

   b. Empirical data verifying the effectiveness of the rule amendments.

In recommending that this rule package go forward to the Commission for adoption, the ECAC indicated that this would hinge on the Department returning to discuss the PAH cleanup standard. Some members of the ECAC would like the Department, whenever possible, to use 10EE-6 health-based numbers as cleanup standards. Since the health-based numbers for carcinogenic PAHs are currently not detectable, PQLs have been used as the cleanup standards. As technology improves, the ECAC expects to see the Department lower the cleanup standards.

The ECAC would also like to see the Department report on the effectiveness of the rule amendments.

The Department agrees with the ECAC's recommendation to discuss these issues, and recommends that we return to the ECAC within 18 months from the date of rule adoption.

2. **The effective date of these proposed amendments should be October 1, 1992.**

This suggested effective date will allow the Department to prepare and carry out an Implementation Plan and develop necessary guidance which will facilitate a smooth transition into rule implementation.

INTENDED FOLLOWUP ACTIONS:

If the staff recommendation is approved, the Department will:

1. Develop an Implementation Plan with regional and headquarters staff to identify and prepare high priority guidance/interpretation documents.

2. Track the implementation of these amendments to insure the objectives are being met.

3. Report to the ECAC within 18 months to discuss the status of technological improvements and potential effects on PAH cleanup standards, and present empirical data on the effectiveness of the rule amendments.

Approved:

Section: _____

Division: _____

Director: _____

Report Prepared By: Alan D. Kiphut

Phone: 229-6834

Date Prepared: May 12, 1992

ADK:adk
staffrpt.gw
5/12/92

ATTACHMENT A
AGENDA ITEM D
6/1/92 EQC MEETING

CLEANUP RULES FOR LEAKING PETROLEUM UST SYSTEMS
OAR 340-122-205 to 340-122-360

OUTLINE OF RULES

340-122-205 Purpose

340-122-210 Definitions

340-122-215 Scope and Applicability

340-122-220 Initial Response

340-122-225 Initial Abatement Measures and Site Check

340-122-230 Initial Site Characterization

340-122-235 Free Product Removal

340-122-240 Investigations for Soil and Groundwater Cleanup

<u>340-122-242 Groundwater Investigation and Cleanup</u>

340-122-250 Corrective Action Plan

340-122-255 Additional Reporting

340-122-260 Public Notice and Participation

NUMERIC SOIL CLEANUP LEVELS/MOTOR FUEL & HEATING OIL

340-122-305 Purpose

340-122-310 Definitions

340-122-315 Scope and Applicability

340-122-320 Soil Cleanup Options

340-122-325 Evaluation of Matrix Cleanup Levels

340-122-330 Evaluation Parameters

340-122-335 Numeric Soil Cleanup Standards

340-122-340 Sample Number and Location

340-122-345 Sample Collection Methods

340-122-350 Required Analytical Methods

340-122-355 Evaluation of Analytical Results

340-122-360 Reporting Requirements

CLEANUP RULES FOR LEAKING PETROLEUM UST SYSTEMS

340-122-205 Purpose

(1) These rules establish the standards and process to be used for the determination of investigation and cleanup activities necessary to protect the public health, safety, welfare and the environment in the event of a release or threat of a release from a petroleum UST system subject to regulation under ORS 466.705 to 466.835 and 465.200 to 465.380.

340-122-210 Definitions

For the purpose of this section, terms not defined in this subsection have the meanings set forth in ORS 465.200, [and] 466.705 and OAR 340-122-310. Additional terms are defined as follows unless the context requires otherwise:

(1) "Above-ground release" means any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the above-ground portion of a petroleum UST system and releases associated with overfills and transfer operations during petroleum deliveries to or dispensing from a petroleum UST system.

(2) "Ancillary equipment" means any devices including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from a petroleum UST system.

(3) "Below-ground release" means any release to the subsurface of the land or to groundwater that has concentrations which are reportable by TPH-HCID. This includes, but is not limited to, releases from the below-ground portion of a petroleum UST system and releases associated with overfills and transfer operations as the petroleum is delivered to or dispensed from a petroleum UST system.

(4) "Cleanup" or "cleanup activity" has the same meaning as "corrective action" as defined in ORS 466.705 or "remedial action" as defined in ORS 465.200.

(5) "Director" means the Director of the Department of Environmental Quality or the Director's authorized representative.

(6) "Excavation zone" means the area containing the tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into

which the petroleum UST system is placed at the time of installation.

(7) "Free product" means petroleum in the non-aqueous phase (e.g., liquid not dissolved in water).

(8) "Heating oil" means petroleum that is No. 1, No.2, No.4-heavy, No. 5-light, No. 5-heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils.

(9) "Motor fuel" means petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No.1 or No.2 diesel fuel, or any grade of gasohol, typically used in the operation of a motor engine.

(10) "Owner", as used in this section, has the meaning set forth in ORS 466.705(8).

(11) "Permittee", as used in this section, has the meaning set forth in ORS 466.705(9).

(12) "Petroleum" means gasoline, crude oil, fuel oil, diesel oil, lubricating oil, oil sludge, oil refuse, and crude oil fractions and refined petroleum fractions, including gasoline, kerosene, heating oils, diesel fuels, and any other petroleum related product, or waste or fraction thereof that is liquid at a temperature of 60 degrees Fahrenheit and a pressure of 14.7 pounds per square inch absolute. (Note: this definition does <u>not</u> include any substance identified as a hazardous waste under 40 CFR Part 261.)

(13) "Petroleum UST system" means any one or combination of tanks, including underground pipes connected to the tanks, that is used to contain an accumulation of petroleum and the volume of which, including the volume of the underground pipes connected to the tank, is 10 percent or more beneath the surface of the ground; and includes associated ancillary equipment and containment system.

(14) "Responsible person" means any person ordered or authorized to undertake remedial actions or related activities under ORS 465.200 through 465.380.

340-122-215 <u>Scope and Applicability</u>

(1) Sections 340-122-205 through 340-122-360 of these rules apply to:

(a) An owner or permittee ordered or authorized to conduct cleanup or related activities by the Director <u>or the Department</u> under ORS 466.705 to 466.835 and 466.895; or

(b) Any person ordered or authorized to conduct remedial actions or related activities by the Director or the Department under ORS 465.200 to 465.380.

(2) Notwithstanding OAR 340-122-215(1)(b) and 340-122-360(3), the [Director] Department may require that investigation and cleanup of a release from a petroleum UST system be governed by OAR 340-122-010 to 340-122-110, if, based on the magnitude or complexity of the release or other considerations, the [Director] Department determines that application of OAR 340-122-010 through 340-122-110 is necessary to protect the public health, safety, welfare and the environment.

(3) Cleanup of releases from UST systems containing regulated substances under ORS 466.705 other than petroleum shall be governed by OAR 340-122-010 to 340-122-110 or as otherwise provided under applicable law.

(4) The [Director] Department may determine that the investigation and cleanup of releases from petroleum underground storage tank systems which are exempted under ORS 466.710(1) through (10) inclusive, shall be conducted under 340-122-205 through 340-122-360, based upon the authority provided under ORS 465.200 to 465.380.

340-122-220 Initial Response

Upon suspicion or confirmation of a release or after a release from the UST system is identified in any manner, owners, permittees or responsible persons shall perform the following initial response actions within 24 hours.

(1) Report the following suspected or confirmed releases to the Department:

(a) All below-ground releases from the petroleum UST system;

(b) All above-ground releases to land from the petroleum UST system in excess of 42 gallons, or less than 42 gallons if the owner, permittee or responsible person is unable to contain or clean up the release within 24 hours; and

(c) All above-ground releases to water which result in a sheen on the water.

(2) Take immediate action to prevent any further release of the regulated substance into the environment; and

(3) Identify and mitigate fire, explosion, and vapor hazards.

340-122-225 Initial abatement measures and site check

(1) Unless directed to do otherwise by the [Director] Department, owners,permittees or responsible persons shall perform the following abatement measures:

(a) Remove as much of the regulated substance from the UST system as is necessary to prevent further release to the environment;

(b) Visually inspect any aboveground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and groundwater;

(c) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zone and entered into subsurface structures;

(d) Remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or cleanup activities. If these remedies include treatment or disposal of soils, the owner, permittee or responsible person shall comply with applicable state and local requirements;

(e) Measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, the owner, permittee and responsible person shall consider the nature of the stored substance, the type of backfill, depth to groundwater and other factors as appropriate for identifying the presence and source of the release; and

(f) Investigate to determine the possible presence of free product, and begin free product removal as soon as practicable and in accordance with subsection 340-122-235.

(2) Within 20 days after release confirmation, or within another reasonable period of time determined by the Director, owners, permittees or responsible persons shall submit a report to the [Director] Department summarizing the initial abatement steps taken under paragraph (1) of this subsection and any resulting information or data.

340-122-230 Initial site characterization

(1) Unless directed to do otherwise by the [Director] Department, owners, permittees or responsible persons shall assemble information about the site and the nature of the

release, including information gained while confirming the release or completing the initial abatement measures in subsection 340-122-225(1). This information shall include, but is not necessarily limited to the following:

(a) Data on the nature and estimated quantity of release;

(b) Data from available sources and/or site investigations concerning the following factors: surrounding populations, water quality, use and approximate locations of wells potentially affected by the release, subsurface soil conditions, locations of subsurface sewers, climatological conditions, and land use;

(c) Results of the measurements required under subsection 340-122-225(1)(e); and

(d) Results of the free product investigations required under subsection 340-122-225(1)(f), to be used by owners, permittees, or responsible persons to determine whether free product shall be recovered under subsection 340-122-235.

(2) Within 45 days of release confirmation or another reasonable period of time determined by the [Director] **Department** owners, permittees or responsible persons shall submit the information collected in compliance with paragraph (1) of this subsection to the [Director] **Department** in a manner that demonstrates its applicability and technical adequacy, or in a format and according to the schedule required by the [Director] **Department**.

340-122-235 Free product removal

At sites where investigations under subsection 340-122-225(1)(f) indicate the presence of free product, owners, permittees or responsible persons shall remove free product to the maximum extent practicable as determined by the [Director] **Department** while continuing, as necessary, any actions initiated under subsection 340-122-220 through 340-122-230, or preparing for actions required under subsections 340-122-240 through 340-122-250. In meeting the requirements of this subsection, owners, permittees or responsible persons shall:

(1) Conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges or disposes of recovery byproducts in compliance with applicable local, state and federal regulations;

(2) Use abatement of free product migration as a minimum objective for the design of the free product removal system;

(3) Handle any flammable products in a safe and competent manner to prevent fires or explosions; and

(4) Unless directed to do otherwise by the [Director] Department prepare and submit to the [Director] Department within 45 days after confirming a release, a free product removal report that provides at least the following information:

(a) The name of the person(s) responsible for implementing the free product removal measures;

(b) The estimated quantity, type, and thickness of free product observed or measured in wells, boreholes, and excavations;

(c) The type of free product recovery system used;

(d) Whether any discharge has taken place on-site or off-site during the recovery operation and where this discharge is located or will be located;

(e) The type of treatment applied to, and the effluent quality from, any discharge;

(f) The steps that have been or are being taken to obtain necessary permits for any discharge;

(g) The disposition of the recovered free product; and

(h) Other matters deemed appropriate by the [Director] Department.

340-122-240 Investigations for soil and groundwater cleanup

(1) In order to determine the full extent and location of soils contaminated by the release and the presence and concentrations of dissolved product contamination in the groundwater, owners, permittees or responsible persons shall conduct investigations of the release, the release site, and the surrounding area possibly affected by the release if any of the following conditions exist:

(a) There is evidence that groundwater wells have been affected by the release;

(b) Free product is found to need recovery in compliance with subsection 340-122-235;

(c) There is evidence that contaminated soils may be in contact with groundwater (e.g., as found during conduct of the initial response measures or investigations

required under subsections 340-122-225 through 340-122-235); [and] or

(d) The [Director] Department requests an investigation, based on the potential effects of contaminated soil or groundwater on nearby surface water and groundwater resources.

(2) Owners, permittees or responsible persons shall submit the information collected under paragraph (1) of this subsection as soon as practicable or in accordance with a schedule established by the [Director] Department.

(3) When results of an investigation performed pursuant to paragraph (1) of this subsection indicate that groundwater has been contaminated beyond the confines of the tank excavation, the investigation to determine the nature, magnitude and extent of the groundwater contamination shall be carried out according to OAR 340-122-242.

340-122-242 Groundwater Investigation and Cleanup

Groundwater investigations required by OAR 340-122-240(3) and cleanup and monitoring of groundwater contamination under corrective action plans required by OAR 340-122-250 shall be performed as specified in this section.

(1) Groundwater Monitoring System Requirements

(a) A minimum of one hydraulically upgradient and two hydraulically downgradient groundwater monitoring wells, capable of adequately characterizing both site hydrogeology and the vertical and horizontal magnitude and extent of contamination, are required. Additional monitoring wells may be required by the Department to adequately characterize the site or to establish compliance monitoring points required by OAR 340-122-242(6).

Note: All monitoring wells must be designed, completed and, when appropriate, removed according to the Water Resources Department's administrative rules, OAR 690-240-005 through 690-240-180 (Construction and Maintenance of Monitoring Wells and Other Holes in Oregon).

(b) When the installation of monitoring wells is impractical due to specific site conditions (e.g. some residential areas), the owner, permittee or responsible person shall notify the Department and develop an alternative course of action which must be approved by the Department.

(2) Sampling Requirements

The proper collection and analysis of water samples is required to verify that a site meets the requirements of these rules.

(a) All sampling required by OAR 340-122-242 must conform to recommended procedures in Test Methods for Evaluating Solid Waste (US EPA SW-846, 1986).

(b) Groundwater samples shall initially be collected at quarterly intervals. If site conditions warrant more or less frequent sampling, an alternative sampling schedule may be proposed in the corrective action plan.

(c) Water elevation measurements shall be made in all monitoring wells during each sampling event, unless the Department has approved measurements from a reduced number of wells which provide sufficient data for the determination of the water table gradient.

(d) Formal chain-of-custody records must be prepared and maintained for each sample.

(e) All sampling events for purposes of identifying contaminants of concern [340-122-242(3)], or for verifying either preliminary compliance [340-122-242(7)] or final compliance [340-122-242(8)] shall include the preparation of proper field (trip) blanks, transfer blanks and duplicates for adequate quality assurance and quality control.

Note: The Department's Quality Assurance Project Plan Guidelines for State of Oregon Leaking Underground Storage Tank Program, 1988 provides sampling and QA/QC guidance.

(3) Contaminants of Concern

(a) During the initial rounds of sampling performed in order to complete an investigation for groundwater cleanup [OAR 340-122-240(3)] owners, permittees or responsible persons shall sample groundwater for all relevant hazardous constituents that are likely to be in the groundwater as a result of the petroleum release.

(A) Benzene, toluene, elthylbenzene and xylenes (BTEX) shall be analyzed at all sites where gasoline, diesel, No. 1 or No. 2 heating oil, or waste oil has been released and where either free product is found floating on the groundwater or detectable levels of total petroleum hydrocarbons (TPH) have been found in any soil sample collected at a depth greater than or equal to the depth of the water table.

(B) Polynuclear Aromatic Hydrocarbons (PAHs) shall be analyzed at all sites where diesel or other non-gasoline petroleum hydrocarbons have been released and where either free product is found floating on the groundwater or TPH levels greater than 100 parts per million (ppm) have been found in any soil sample collected at a depth greater than or equal to the depth of the water table. Under these conditions, owners, permittees, or responsible persons may use TPH analyses on groundwater samples as a preliminary screen. The TPH method detection limit shall be no greater than 0.5 ppm. Any groundwater sample for which TPH is detected shall be analyzed for PAHs.

(C) Ethylene dibromide (EDB) and Ethylene dichloride (EDC) shall be analyzed at all sites where leaded gasoline has been released and where either free product is found floating on the groundwater or TPH levels greater than 40 ppm have been found in any soil sample collected at a depth greater than or equal to the depth of the water table.

(D) Dissolved lead shall be analyzed at all sites where leaded gasoline or waste oil has been released and where either free product is found floating on the groundwater or TPH levels greater than 40 ppm for leaded gasoline releases, or 100 ppm for waste oil releases, have been found in any soil sample collected at a depth greater than or equal to the depth of the water table. Groundwater samples for analysis of dissolved lead shall be filtered immediately upon collection using a 0.45 micron filter.

(E) The Department may require analyses for additional contaminants of concern at sites where waste oil has been released or other site-specific factors warrant such tests.

(b) Based on the results of the investigation, owners, permittees or responsible persons shall propose in a corrective action plan prepared pursuant to OAR 340-122-250, what actions, if any, are necessary to monitor and/or remediate groundwater contamination found at the site. These actions may not necessarily require sampling from all wells nor monitoring for all contaminants detected during the investigation as long as:

(A) Hydrogeological and contamination data, as well as compliance point requirements of 340-122-242(6), support the choice of wells to be monitored;

(B) Appropriate indicator compounds, as approved by the Department, are analyzed at regular intervals during the cleanup and monitoring phases, as specified in an approved corrective action plan;

(C) Cleanup levels required by 340-122-242(4) are considered; and

(D) All contaminants of concern detected during the investigation are addressed in the corrective action plan and are analyzed to confirm preliminary and final compliance.

(4) Cleanup Levels

(a) The basic numeric groundwater cleanup levels for petroleum UST contaminated sites are:

Volatile Aromatic Hydrocarbons	
Benzene	5 ppb
Ethylbenzene	700 ppb
Toluene	1000 ppb
Total Xylenes	10,000 ppb
Gasoline Additives	
Lead	5 ppb
1,2-dibromoethane (ethylene dibromide, EDB)	1 ppb
1,2-dichloroethane (ethylene dichloride, EDC)	5 ppb
Polynuclear Aromatic Hydrocarbons (PAHs)	
Carcinogenic PAHs	
Benzo(a)pyrene	.2 ppb
Benzo(a)anthracene	.1 ppb
Benzo(b)fluoranthene	.2 ppb
Benzo(k)fluoranthene	.2 ppb
Chrysene	.2 ppb
Dibenzo(a,h)anthracene	.3 ppb
Indenopyrene	.4 ppb
Non-carcinogenic PAHs	
Acenaphthene	420 ppb
Anthracene	2100 ppb
Fluoranthene	280 ppb
Fluorene	280 ppb
Naphthalene	28 ppb
Pyrene	210 ppb

(b) At sites where sensitive ecosystems or drinking water supplies are threatened or impacted, the Department may require that groundwater be cleaned to federal or state water quality standards or secondary maximum contaminant levels (SMCLs), where available, in order to protect public health, safety and welfare or the environment.

(c) For sites at which cleanup levels less stringent than those listed in this section are being proposed, a risk assessment and technical feasibility study justifying those levels and showing adequate protection of public health, safety and welfare and the environment must be submitted to and approved by the Department, through the corrective action plan procedures described in OAR 340-122-250.

(5) Analytical Methods

All sampling events for purposes of identifying contaminants of concern [OAR 340-122-242(3)], or for verifying either preliminary compliance [OAR 340-122-242(7)] or final compliance [OAR 340-122-242(8)] shall use the following analytical methods:

(a) Volatile aromatic hydrocarbons shall be analyzed by means of EPA Method 8020 or 8240.

(b) Polynuclear Aromatic Hydrocarbons (PAHs) shall be analyzed by means of EPA Method 8310 or other comparable methods approved by the Department.

(c) 1,2-dibromoethane (EDB) and 1,2-dichloroethane (EDC) shall be analyzed by means of EPA Method 8010 or 8240.

(d) Dissolved lead shall be analyzed by means of EPA Method 7421.

(e) Total Petroleum Hydrocarbons (TPH) in water shall be analyzed by EPA Method 418.1, and TPH in soils by the appropriate method(s) listed in 340-122-350.

(f) The Department may approve alternative analytical methods which have been clearly shown to be applicable for the compounds of interest and which have detection limits at least as low as the methods listed above.

(6) Compliance Monitoring Points

In a corrective action plan prepared for a site requiring cleanup and/or monitoring of groundwater contamination, the owner, permittee or responsible person shall recommend which monitoring well or wells shall serve as compliance points for the site. This recommendation is subject to the Department's approval.

(a) Compliance monitoring points shall be established to define a lateral area surrounding the source of contamination, outside of which all appropriate cleanup levels must be attained and maintained, out to the edge of the contaminant plume. Compliance monitoring points shall be located as close as practicable to the source of contamination and shall not be located beyond the release site property boundary, unless authorized by the Department.

(b) The compliance monitoring points shall establish a vertical boundary extending from the uppermost level of the

saturated zone to the lowest depth which could potentially be affected by the release.

(7) Preliminary Compliance

(a) Preliminary compliance is attained when the first sampling event following the installation of all required monitoring wells shows that all samples collected from the compliance monitoring points out to the edge of the contaminant plume meet the required cleanup levels for all of the specified contaminants of concern.

(b) An owner, permittee or responsible person may suspend groundwater treatment system operation any time after achieving preliminary compliance.

(c) The Department may require a groundwater treatment system that has been shut down following the attainment of preliminary compliance to be restarted if any of the water samples collected at or beyond the compliance monitoring points during the required period of monitoring are found to contain any contaminant concentrations in excess of the required cleanup levels. If the treatment system is restarted, treatment shall continue until preliminary compliance is again attained.

(8) Final Compliance

(a) Final compliance shall be attained when the following conditions have been met:

(A) A minimum of four consecutive quarterly groundwater monitoring events have been completed following shutdown of the treatment system, in which all samples collected from the compliance monitoring points, as approved in a corrective action plan, out to the edge of the contaminant plume meet the required cleanup levels for all of the specified contaminants of concern. The four consecutive sampling events may include the sampling event at which preliminary compliance is achieved, provided that all specified contaminants of concern are included in the analysis.

(B) Site-specific hydrogeologic and contaminant level data have been presented in a written report to the Department which clearly show that any remaining contaminants shall not move beyond the compliance monitoring points at levels in excess of cleanup levels.

(C) A final report meeting the requirements of OAR 340-122-242(10) has been submitted to and approved by the Department.

(b) Notwithstanding the provisions of section (8)(a) above, the Department may require continued treatment and/or

monitoring of the groundwater in situations where site-specific conditions warrant such measures.

(c) If a remediation system employing the best available treatment technology is operated as designed but the contaminant concentrations stabilize above the numeric cleanup level, the Department may allow the corrective action to be terminated provided that a risk assessment or other information demonstrates to the Department that the remaining contaminant concentrations and/or such other measures (e.g. supplemental site controls) as the Department determines are necessary, are protective of public health, safety and welfare and the environment.

(9) Supplemental Site Controls

In the event that contamination levels above cleanup standards are allowed to remain on site pursuant to subsections (4)(c) and/or (8)(c), the Department may require the use of institutional controls (e.g. deed addendums) and/or engineering controls (e.g. hydraulic controls) in order to assure protection of public health, safety and welfare and the environment.

(10) Reporting Requirements

(a) Reports regarding groundwater contaminant concentrations shall be submitted after every required sampling event. Reports shall be submitted within 45 days of each sampling event unless the Department determines that some other time interval is acceptable.

(b) At a minimum, groundwater monitoring reports required by the Department shall contain:

(A) A summary of all sampling, handling and chain-of-custody procedures followed, including, when appropriate, a discussion of any routine maintenance procedures performed during the quarter and any problems encountered such as failure of a pump, clogging of a well screen, an unexplained change in the quality of the water, or any other unusual event, and what actions were taken, or will be taken, in response to such occurances;

(B) A summary of all of the analytical data including QA/QC results for the sampling event;

(C) Water elevation measurements from each monitoring well, unless the Department has approved elevation measurements from a reduced number of wells;

(D) A written evaluation of the data describing trends or other pertinent information derived from the sampling event, specifying the method or methods of statistical analysis used to prove the significance of these trends; and

(E) If necessary, a proposal for any modifications necessary to improve system performance or cleanup strategies.

(c) The Department may request additional data and/or information as deemed necessary.

(d) In addition to the other reporting requirements of this section, a report submitted for the purpose of requesting the Department's concurrence that final groundwater compliance has been attained must include a summary of all groundwater data collected at the site, an analysis of the data demonstrating that the final compliance requirements of subsection (8) have been met, and any other relevant information necessary to demonstrate that all of the requirements of OAR 340-122-242 have been met.

340-122-250 Corrective Action Plan

(1) At any point after reviewing the information submitted in compliance with subsections 340-122-220 through 340-122-230 or 340-122-305 through 340-122-360, the [Director] Department may require owners, permittees or responsible persons to submit additional information or to develop and submit a corrective action plan for responding to contaminated soils and groundwater. If a plan is required, owners, permittees or responsible persons shall submit the plan according to a schedule and format established by the [Director] Department. Alternatively, owners, permittees or responsible persons may, after fulfilling the requirements of subsections 340-122-220 through 340-122-230 or 340-122-305 through 340-122-360, choose to submit a corrective action plan for responding to contaminated soil and groundwater. In either case, owners, permittees or responsible persons are responsible for submitting a plan that provides for adequate protection of public health, safety, welfare and the environment as determined by the [Director] Department and shall modify their plan as necessary to meet this standard.

(2) The [Director] Department shall approve the corrective action plan only after ensuring that implementation of the plan will adequately protect public health, safety, welfare and the environment. In making this determination, the [Director] Department shall consider the following factors, as appropriate:

(a) The physical and chemical characteristics of the regulated substance, including its toxicity, persistence, and potential for migration;

(b) The hydrogeologic characteristics of the facility and the surrounding area;

(c) The proximity, quality, and current and future uses of nearby surface water and groundwater;

(d) The potential effects of residual contamination of nearby surface water and groundwater;

(e) An exposure assessment;

(f) Any information assembled in compliance with this subsection, or with OAR 340-122-240 and 242.

(g) The impact of the release on adjacent properties; and

(h) Other matters deemed appropriate by the [Director] Department.

(3) Upon approval of the corrective action plan or as directed by the [Director] Department, owners, permittees or responsible persons shall implement the plan, including modifications to the plan made by the [Director] Department. They shall monitor, evaluate, and report the results of implementing the plan in accordance with a schedule and in a format established by the [Director] Department.

(4) Owners, permittees or responsible persons shall submit additional information or develop and submit a modified corrective action plan at the Department's request if the Department determines that cleanup activities must be modified or that treatment system performance (e.g. rate of cleanup) is not achieving results as projected in the approved corrective action plan.

(5) When all requirements of an approved corrective action plan have been met to the Department's satisfaction, the Department shall issue a site closure letter to the owner, permittee or responsible person.

[(4)] (6) Owners, permittees or responsible persons may, in the interest of minimizing environmental contamination and promoting more effective cleanup, begin cleanup of soil and groundwater before the corrective action plan is approved provided that they:

(a) Notify the [Director] Department of their intention to begin cleanup;

(b) Comply with any conditions imposed by the [Director] Department including halting cleanup or mitigating adverse consequences from cleanup activities; and

(c) Incorporate these self-initiated cleanup measures in the corrective action plan that is submitted to the [Director] Department for approval.

340-122-255 Additional reporting

The owner, permittee, or responsible person shall provide any additional information beyond that required under subsection 340-122-225(2), as requested by the [Director] Department.

340-122-260 Public participation

(1) The Department shall maintain a list of all confirmed releases and ensure that site release and cleanup information are made available to the public for inspection upon request.

(2) For each confirmed release, upon written request by 10 or more persons or by a group having 10 or more members, the Department shall conduct a public meeting at or near the facility for the purpose of receiving verbal comment regarding proposed cleanup activities, except for those cleanup activities conducted under OAR 340-122-305 through 340-122-360.

(3) For each confirmed release that requires a corrective action plan, the Department shall provide notice to the public by means designed to reach those members of the public directly affected by the release and the planned corrective action. This notice may include, but is not limited to, public notice in local newspapers, block advertisements, public service announcements, publication in a state register, letters to individual households, or personal contacts by field staff.

(4) The Department shall ensure that site release information and decisions concerning the corrective action plan are made available to the public for inspection upon request.

(5) Before approving a corrective action plan, the Department may hold a public meeting to consider comments on the proposed corrective action plan if there is sufficient public interest, or for any other reason.

(6) The Department shall give public notice that complies with paragraph (3) of this subsection if implementation of an approved corrective action plan does not achieve the established cleanup levels in the plan and termination of that plan is under consideration by the Department.

340-122-335 Numeric Soil Cleanup Standards

(1) If the Matrix Score evaluated in 340-122-330 is:

(a) Greater than 40, the site must be cleaned up to at least the Level 1 standards listed in 340-122-335(2).

(b) From 25 to 40, inclusive, the site must be cleaned up to at least the Level 2 standards listed in 340-122-335(2).

(c) Less than 25, the site must be cleaned up to at least the Level 3 standards listed in 340-122-335(2).

(2) The following table contains the required numeric soil cleanup standards based on the level of Total Petroleum Hydrocarbons (TPH) as measured by the analytical methods specified in 340-122-350.

	Level 1	Level 2	Level 3
TPH (Gasoline)	40 ppm	80 ppm	130 ppm
TPH (Diesel)	100 ppm	500 ppm	1000 ppm

(3) The Hydrocarbon Identification (HCID) test specified in 340-122-350(3) shall be used to identify the petroleum product contamination present at the site. <u>The HCID test is not required for releases from residential heating oil tanks.</u> The results of the HCID test shall be used to determine which analytical method or methods are required for verifying compliance with the Matrix cleanup levels. At locations where the soil is contaminated with both gasoline and diesel or other non-gasoline fraction hydrocarbons, the gasoline contamination shall be shown to meet the appropriate gasoline cleanup standard and the diesel or other non-gasoline fraction contamination shall be shown to meet the appropriate diesel cleanup standard.

340-122-340 <u>Sample Number and Location</u>

The collection and analysis of soil samples is required to verify that a site meets the requirements of these rules. These samples must represent the soils remaining at the site and shall be collected after contaminated soils have been removed or remediated. Each sample must represent a single location; composite samples are not allowed. The number of soil samples required for a given site and the location at which the samples are to be collected are as follows:

(1) A minimum of two soil samples must be collected from the site:

(a) These samples must be taken from those areas where obviously stained or contaminated soils have been identified and removed or remediated.

(b) If there are two or more distinct areas of soil contamination, then a minimum of one sample must be collected from each of these areas.

(c) The samples must be taken from within the first foot of native soil directly beneath the areas where the contaminated soil has been removed, or from within the area where in-situ remediation has taken place.

(d) A field instrument sensitive to volatile organic compounds may be used to aid in identifying areas that should be sampled, but the field data may not be substituted for laboratory analyses of the soil samples.

(e) If there are no areas of obvious contamination, then samples must be collected from the locations specified in subsections (2) to (5) of this section which are most appropriate for the situation.

(f) If it is being proposed that a pocket of contamination be left in place pursuant to 340-122-355(4), then sufficient samples shall be collected from the site in order to estimate the extent, volume and level of contamination in this pocket.

(2) If water is not present in the tank pit:

(a) Soil samples must be collected from the native soils located no more than two feet beneath the tank pit in areas where contamination is most likely to be found.

(b) For the removal of an individual tank, samples must be collected from beneath both ends of the tank. For the removal of multiple tanks from the same pit, a minimum of one sample must be collected for each 150 square feet of area in the pit.

(3) In situations where leaks have been found in the piping, or in which released product has preferentially followed the fill around the piping, samples are to be collected from the native soils directly beneath the areas where obvious contamination has been removed. Samples should be collected at 20 lateral foot intervals.

(4) If water is present in the tank pit, regardless of whether obvious contamination is or is not present, the Department must be notified of this fact. The owner, permittee, or responsible person shall then either continue the investigation under OAR 340-122-240, or do the following:

(a) Purge the water from the tank pit and dispose of it in accordance with all currently applicable requirements. This may include obtaining appropriate permits from the Department or local jurisdictions.

(b) If the pit remains dry for 24 hours, testing and cleanup may proceed according to the applicable sections of these

soil cleanup rules. If water returns to the pit in less than 24 hours, a determination must be made as to whether contamination is likely to have affected the groundwater outside of the confines of the pit as indicated below:

(A) For the removal of an individual tank, soil samples are to be collected from the walls of the excavation next to the ends of the tank at the original soil/water interface. For the removal of multiple tanks from the same pit, a soil sample is to be collected from each of the four walls of the excavation at the original soil/water interface.

(B) At least one sample must be taken of the water in the pit regardless of whether obvious contamination is or is not present. This sample shall be collected as required by 340-122-345(4).

(C) The soil samples must be analyzed for TPH and benzene, toluene, ethylbenzene and xylenes (BTEX). [, and] The water sample must be analyzed for BTEX at all sites, and for PAHs where releases of non-gasoline fractions have occurred. Owners, permittees or responsible persons may use TPH analyses on groundwater samples as a preliminary screen for PAHs. The TPH method detection limit shall be no greater than 0.5 ppm. Any groundwater sample for which TPH is detected shall be analyzed for PAHs. These analyses shall be made using the methods specified in 340-122-242(5). The results of these analyses [must] shall be submitted to the Department.

(D) The Department shall then determine how the cleanup shall proceed as specified in 340-122-355(3).

(5) In situations where tanks and lines are to remain in place in areas of suspected contamination, the owner, permittee or responsible person shall submit a specific soil sampling plan to the Department for its approval.

(6) In situations where TPH analysis indicates that contamination is present due to a release from a waste oil tank, at least one sample of the waste oil contaminated soils must be collected and analyzed for [PCBs,] volatile chlorinated solvents, volatile aromatic solvents, and leachable metals (Cadmium, Chromium and Lead) using the analytical methods specified in 340-122-350. Analysis for PCBs is also required if the contamination is from a waste oil tank other than one used exclusively for storage of automotive waste oils.

Attachment B
Agenda Item D
6/1/92 EQC Meeting

STATEMENT OF NEED FOR RULEMAKING

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

(1) **Legal Authority**

ORS 465.400 (1) authorizes the Environmental Quality Commission to adopt rules, in accordance with the applicable provision of ORS 183.310 to 183.550, necessary to carry out the provisions of ORS 465.200 to 465.900. ORS 466.720(1) directs the Commission to adopt a state-wide underground storage tank (UST) program. ORS 466.745(1) authorizes the Commission to adopt rules for responding to a release from an UST and rules otherwise necessary to carry out the provisions of 466.705 to 466.835 and 466.895. 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**

The proposed amendments to existing UST Cleanup Rules address a need for greater certainty on cleanup goals and clarity in the petroleum UST cleanup process. The purpose of the proposed rules is to establish clear standards and guidelines for responsible persons cleaning up sites, and to foster more consistent UST cleanups throughout the state. For example, the proposed rules specify "how clean is clean" and delineate required procedures.

This need is also recognized by tank owners, consultants and contractors, as well as the Department. Members of the Environmental Cleanup Advisory Committee (ECAC) agreed with the intent of this effort and, after several months of discussion and refinement, supported sending the proposed amendments out to public hearing and supported sending them forward to the EQC for adoption.

Attachment C
Agenda Item D
6/1/92 EQC Meeting

FISCAL AND ECONOMIC IMPACT STATEMENT

I. INTRODUCTION

The proposed rule amendments will increase the costs for water sampling at some petroleum UST soil matrix sites, and some petroleum UST sites where groundwater investigation and cleanup are necessary. Some UST owners, permittees or responsible persons will be affected by these cost increases. This is primarily due to additional sampling and analysis requirements for additives (EDB/EDC) and PAHs.

For soil matrix sites, if groundwater is encountered in the tank excavation pit and the release is from diesel or other non-gasoline fractions, the recharged water will need to be analyzed for PAHs once the pit has been pumped out and allowed to recharge. This will be a one-time additional cost of between $75 and $200 for those sites, assuming no contamination is found. If the contamination is from gasoline, no additional sampling beyond currently required BTEX is necessary.

For UST releases which have confirmed groundwater contamination, the proposed rule amendments will result in additional costs at some sites. However, not all sites are affected. The Department estimates that less than 20% of all UST groundwater sites are impacted by diesel or gas/diesel releases. These sites represent less than 7% of all UST releases currently reported to the Department. The number of leaded gasoline UST releases impacting groundwater, thus potentially needing analysis for additives and lead, is about 3% of all UST groundwater sites and less than 1% of all reported UST releases. The impact of the proposed amendments is even less than the percentages stated above because not all UST releases to groundwater will require the additional sampling and analysis.

For those UST sites impacted by the proposed rule amendments, it is impossible to state exact additional costs for every site, since each site is unique and the proposed amendments allow flexibility in determining the number of wells and frequency of sampling necessary at the site. In some cases, initial sampling may show no detectable levels of PAHs and there would be no additional requirements. As an example for that situation, assuming 6 wells sampled, the total additional cost would be $1,200 (6 wells x $200 per sample).

Other sites may have moderate to extensive PAH contamination and many monitoring wells. In these cases, PAH sampling might be necessary initially in some wells, and at the end of the project to demonstrate preliminary and final compliance, but the rule amendments would allow TPH to serve as an indicator compound for sampling events in between. Using the six well example mentioned above, this type of site would have additional costs of $2,400 for PAH analysis plus some additional costs for TPH analysis. These costs may not be completely "additional" since the responsible person and/or consultant may take periodic samples to check on system performance, and it is likely that activities can be combined in order to keep additional costs down.

The same scenarios described above apply to additives although the analytical costs are slightly less (about $150 per sample). These sites represent a very small percentage of UST cleanups in the state (less than 1%). The likelyhood of there being a PAH and an additive problem at the same location is not typical, but in such a case the analytical cost impact would be the sum of the two. These costs could range from $3,000 to $12,000, depending on the magnitude of the release and the number of wells required.

In most cases, there will not be additional costs for cleaning up the site. Additives will usually be remediated along with the other aromatic hydrocarbons through conventional cleanup technology being used at a gasoline release site. If there is a lead problem, additional technology may be necessary to clean up the site. Cleanup of PAHs may require some additional technology and expense at some sites, depending on the type of PAH, the level on contamination and treatment system discharge permit requirements.

II. SMALL BUSINESSES

While the additional costs apply equally to small and large businesses, local governments and other state agencies, the fiscal impact will be greatest for small businesses which own or operate gas stations and have had a diesel release which has impacted groundwater. This is a very small percentage of the gas stations in the state, and the Department has attempted to mitigate these additional costs by requiring additional sampling only in limited situations.

The Department has attempted to make the proposed amendments clear and thorough in an effort to provide the small business owner with a comprehensive picture of the process.

The additional costs associated with these proposed amendments may also be mitigated somewhat by decreased Department oversight costs due to the availability of clear standards and a delineated process to follow. This should reduce the number of negotiation meetings between the responsible person and the Department, which occur to develop an agreement on cleanup goals and approach.

III. LARGE BUSINESSES

The additional costs, as described in the Introduction, will be experienced by large businesses (e.g. gas station chains) as well as small businesses.

IV. GENERAL PUBLIC

There is no direct fiscal impact on the general public.

V. LOCAL GOVERNMENTS

Local governments which operate gasoline stations for fleets or otherwise own underground storage tanks, may experience some additional costs if a release from one of their tanks contaminates groundwater. Local jurisdictions may also become owners of underground storage tanks through right-of-way excavations, property transactions and tax foreclosures, and therefore may incur increased sampling and analysis costs.

VI. STATE AGENCIES

A small portion (2-4%) of cleanups are paid for through the Federal Leaking Underground Storage Tank Trust Fund for releases with no viable responsible person. The Department will experience increased investigation and cleanup costs for sites which need the additional sampling and analysis.

Other State agencies which operate gasoline stations for fleets or otherwise own underground storage tanks, may experience some additional costs if a release from one of their tanks contaminates groundwater. Other State agencies may also become owners of underground storage tanks through right-of-way excavations, property transactions and tax foreclosures, and therefore may incur increased sampling and analysis costs.

ATTACHMENT D
AGENDA ITEM D

6-1-92 EQC MEETING

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Proposed Amendments to Underground Storage Tank Cleanup Rules
(OAR 340-122-205 through 340-122-360)

Hearing Dates: January 15, 1992
January 16, 1992
January 21, 1992
January 22, 1992
January 23, 1992

Comments Due: January 31, 1992

WHO IS AFFECTED: The proposed amendments will affect owners, permittees and operators of regulated underground storage tanks containing motor fuel and heating oil. Also affected may be owners of unregulated tanks containing these products.

WHAT IS PROPOSED: The Department of Environmental Quality is proposing amendments to the UST Cleanup Rules to provide numeric cleanup standards and delineate the groundwater cleanup process.

WHAT ARE THE HIGHLIGHTS: The proposed rule amendments are designed to clarify cleanup goals to responsible parties and delineate the required process for groundwater cleanups associated with petroleum UST releases.

The most important change is the establishment of numeric cleanup standards for petroleum UST releases. These standards provide clear goals for responsible parties to use in developing Corrective Action Plans for UST cleanups.

HOW TO COMMENT: **Public Hearing Schedule:**

Portland
January 15, 1992
7:00 - 9:00 p.m.
Portland Building
Room C
2nd Floor
1120 S. W. 5th Ave.

Pendleton
January 16, 1992
7:00 - 9:00 p.m.
Blue Mountain
Community College
Pioneer Building
Room 148
2411 N. W. Carden

Bend
January 21, 1992
7:00 - 9:00 p.m.
Central Oregon
Community College
Boyle Education Building
Room 106
2600 N. W. College Way

Eugene
January 22, 1992
7:00 - 9:00 p.m.
Lane Community College
Health Building, Room 269
4000 E. 30th Avenue

Medford
January 23, 1992
7:00 - 9:00 p.m.
Smullin Center
Lecture Hall 2
2825 Barnett Road

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

FOR FURTHER INFORMATION: D-1

(Continued)

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.

Written comments should be sent to:

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, OR 97204

The comment period will end Friday, January 31, 1992. All comments must be received at the Department no later than 5:00 p.m. on that date.

For more information or copies of the proposed rules, contact Alan Kiphut at (503) 229-6834 or toll-free at 1-800-452-4011.

WHAT IS THE NEXT STEP: After public testimony has been received and evaluated, the proposed amendments will be revised as appropriate and presented to the Environmental Quality Commission in March, 1992. The Commission may adopt the Department's recommendation, amend the Department's recommendation, or take no action.

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Proposed Amendments to Underground Storage Tank Cleanup Rules (OAR 340-122-205 through 340-122-360)

Hearing Dates: April 16, 1992

Comments Due: April 17, 1992

WHO IS AFFECTED: The proposed amendments will affect owners, permittees and operators of regulated underground storage tanks containing motor fuel and heating oil. Also affected may be owners of unregulated tanks containing these products.

WHAT IS PROPOSED: The Department of Environmental Quality is proposing amendments to the UST Cleanup Rules to provide optional numeric cleanup standards and delineate the groundwater cleanup process.

WHAT ARE THE HIGHLIGHTS: The proposed rule amendments are designed to clarify cleanup goals to responsible parties and delineate the required process for groundwater cleanups associated with petroleum UST releases.

Public Hearings were held in January, 1992 and the proposed amendments have been modified in light of comments received at that time.

HOW TO COMMENT: Public Hearing Schedule

Portland	Eugene
April 16, 1992	April 16, 1992
7:00 - 9:00 p.m.	7:00 - 9:00 p.m.
City Hall - Mayor's Office	Lane Community College
Room 321	Apprenticeship Room 214
1220 S.W. 5th Ave	4000 E. 30th Ave.

Written comments should be sent to:

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 S.W. Sixth Avenue
Portland, OR 97204

The comment period will end Friday, April 17, 1992. All comments must be received at the Department no later than 5:00 p.m. on that date.

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

11/1/86

FOR FURTHER INFORMATION: D-3 (over)

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.

For more information or copies of the proposed rule amendments, contact Alan Kiphut at (503) 229-6834 or toll-free at 1-800-452-4011.

WHAT IS THE NEXT STEP: After public testimony has been received and evaluated, the proposed amendments will be revised as appropriate and presented to the Environmental Quality Commission on June 1, 1992. The Commission may adopt the Department's recommendation, amend the Department's recommendation, or take no action.

LUST\SM4213

Attachment E
UST Cleanup
Groundwater Rules

DEQ LAND USE EVALUATION STATEMENT
FOR RULEMAKING

1. **Explain the purpose of the proposed rules:**

   The proposed rules amend existing petroleum UST Cleanup Rules to provide optional numeric cleanup standards and delineate the groundwater cleanup process. Potential application of the Environmental Hazard Notice.

2. **Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program? Yes ___ No _X_**
   If "No", explain: Not applicable.

2a. **If yes, identify existing program/activity:** Not applicable.

2b. **If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?** Not applicable.

2c. **If no, apply criteria 1. and 2. from the other side of this form and from Section III, subsection 2 of the SAC Program document to the proposed rules. In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.**

   Environmental cleanup rules and activities have not been determined land use programs through the Department's State Agency Coordination Program pursuant to OAR 660-30-075(2) and OAR 340-18-070. Environmental cleanup activities are neither specifically referenced in the statewide planning goals nor are they reasonably expected to have significant effects on resources or present or future land uses. The Environmental Hazard Notice (OAR-130) could be invoked under the proposed rule; in such a case, the mechanisms specificed in the SAC Section III, subsection 3(7) shall apply.

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

MSD — Debbie Young — 11.26.91

Division **Intergovernmental Coordinator** **Date**

Attachment F
Agenda Item D
6/1/92 EQC Meeting

BACKGROUND AND ADVISORY COMMITTEE RECOMMENDATION

Based on the need for clear direction on cleanup of groundwater at leaking underground storage tank (LUST) sites, the UST Cleanup staff brought together representatives from other DEQ programs and formed a workgroup which met from October, 1990 through April, 1991. Staff then worked with the Environmental Cleanup Advisory Committee (ECAC) from May through September, 1991 to develop groundwater cleanup standards and associated rule amendments. At their September 25, 1991 meeting, those ECAC members present voted to send the proposed rule amendments out for public hearing.

Public hearings were held in January, 1992 in Portland, Eugene, Medford, Bend and Pendleton. After the public comment period, staff spent additional time preparing more background information, revising the proposed amendments, meeting with ECAC and finally held additional public hearings in Eugene and Portland on April 16, 1992. At the April 28, 1992 ECAC meeting, the committee voted 8-3 in favor of sending this rule package to the Environmental Quality Commission (EQC) for adoption.

A stipulation of this vote was that the EQC direct the Department to return to the ECAC to discuss technological improvements which might warrant changing the stated cleanup levels for carcinogenic PAHs. Our proposed standards are based on MCLs and health affect calculations. Health-based standards assume a 10EE-6 excess cancer risk limit or a hazard quotient of one for toxic compounds. Some standards, notably those for the carcinogenic PAHs, are not presently measurable at the 10EE-6 risk level. In such cases the MCLs were assigned a value which EPA states can be reasonably attained by commercial laboratories. This value is referred to as the PQL or Practical Quantification Limit.

The ECAC would like to see the Department move toward 10EE-6 health-based standards whenever possible. The ECAC supports the use of the current PQL/MCL for PAHs until technology improves and lower levels can be reached. The Department suggests that the timeframe to return to the ECAC be set at 18 months, to allow time for technological improvements and also time to evaluate the implementation of these proposed amendments in general.

The recommendation from ECAC chair David Blount, as well as background information on additives, PAHs and the sampling trigger levels follows this introduction.

COPELAND, LANDYE, BENNETT AND WOLF
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS
ATTORNEYS AT LAW
3500 FIRST INTERSTATE TOWER
PORTLAND, OREGON 97201

(503) 224-4100

FACSIMILE (503) 224-4133

ALASKA OFFICE
550 WEST SEVENTH AVENUE
SUITE 1350
ANCHORAGE, ALASKA 99501
(907) 276-5152

MARK G. COPELAND, P.C. **
THOMAS M. LANDYE, P.C.
J. DAVID BENNETT, P.C.
DAVID P. WOLF, INC.*
ROBERT B. HOPKINS, P.C.
RICHARD L. SADLER, P.C.
RANDALL L. DUNN, P.C.***
JAMES S. CRANE, P.C.**
ROBERT H. HUME, JR., INC.**
MITCHEL R. COHEN, P.C.
DAVID L. BLOUNT
DAVID S. CASE, P.C.*
THANE W. TIENSON ***
DAVID N. GOULDER
P. STEPHEN RUSSELL III, P.C.
MARGOT POZNANSKI
ROBERT P. OWENS ****
KARI L. BAZZY *
LAURA H. KOSLOFF

*ALASKA STATE BAR
**ALASKA STATE AND OREGON STATE BARS
***WASHINGTON STATE AND OREGON STATE BARS
****ALASKA STATE AND WASHINGTON STATE BARS
ALL OTHERS OREGON STATE BAR ONLY

May 12, 1992

Chair William W. Wessinger
Environmental Quality Commission
811 SW 6th Avenue
Portland, Oregon 97204

Re: Recommendation to Adopt Amendments to the UST Cleanup Rules (OAR 340-122-205 to 340-122-360), including Groundwater Cleanup Levels

Dear Chair Wessinger and Commission Members:

The Environmental Cleanup Advisory Committee (ECAC) recommends that the amendments to the UST Cleanup Rules (OAR 340-122-205 to 340-122-360), including the Groundwater Cleanup Levels, be adopted as rules.

This recommendation comes on a majority vote (8-3), with the following qualifications. ECAC requests that the EQC direct the Department to return to ECAC within eighteen (18) months from the effective date of the rule with information on the following issue:

1. Have there been technological advancements which warrant adjusting the cleanup levels for carcinogenic PAHs [340-122-242(4)]?

2. Have empirical data verified the effectiveness of the rule?

Some ECAC members would like to see the cleanup levels for carcinogenic PAHs set at a health based number, but also recognize that this level is currently below analytical detection limits. In order to ensure that the Department is moving toward this goal, ECAC asks the Commission to direct the Department to return to ECAC

to evaluate further technological advancements as they relate to this issue.

Sincerely,

David L. Blount

David L. Blount
ECAC Chair

cc: ECAC

GASOLINE ADDITIVE CLEANUP CRITERIA

Background

The question of how to address gasoline additive contamination in groundwater first arose in early 1990. Many chemicals have been mixed with gasoline to boost octane ratings (alkylated lead compounds, MTBE, alcohols), to scavenge lead (EDC, EDB), and to inhibit deposit formation and corrosion (various types of organic compounds). When one considers the complex nature of gasoline in combination with a potentially large large list of additives, it is obvious that the picture becomes cloudy very quickly. In order to simplify the process of evaluating groundwater impacts and thereby lessen the regulatory burden on responsible parties, it was necessary to focus on compounds which are both commonly found in gasoline AND which present significant health or environmental risks. Due to the current lack of field data, the Department is requiring sampling for additives only in limited leaded gasoline release situations where we believe the likelihood of their presence is greatest.

MTBE, although very commonly used, soluble, and mobile, was considered but not included in our list of contaminants of concern because there are no data currently available on which to make a health or environmental threat decision. At least two states regulate MTBE in groundwater based on taste and odor impacts. The Department's primary concern is to prevent significant health and environmental impacts, not necessarily to preserve aesthetic qualities of the groundwater. The Department does, however, reserve the right to impose more stringent cleanup levels (i.e., secondary MCLs) if particular situations warrant a greater level of protection. These situations may include releases which threaten drinking water supplies or sensitive ecosystems such as wetlands.

The various alcohols were considered but not included despite their solubility. Insufficient data are available on which to base a decision regarding the threat to public health, safety and welfare and the environment posed by alcohols in groundwater.

The alkylated lead compounds (i.e., tetraethyl and tetramethyl lead) were also considered but not included. These compounds tend to be extremely toxic but at present there are no analytical methods capable of detecting these compounds in particular. The State of California has developed a method for analyzing organic lead compounds but the method cannot differentiate among the various compounds and has a detection limit of 0.1 ppm (100 ppb). Because the MCL for lead is 5 ppb we decided to take a more conservative approach and regulate lead rather than only organic lead. We are also requiring the use of filtered samples to determine the dissolved (and probably most mobile) lead concentrations, rather than using total lead concentrations, as a means of evaluating the threat that lead compounds pose to public health, safety and welfare and the environment.

We also chose to regulate EDB and EDC based upon the availabilty of health-based data and the existence of MCLs for these compounds. Both EDB and EDC are common lead scavengers and are readily soluble in water.

Proposed Sampling Requirements

Sampling and analysis for gasoline additives are not required at all gasoline release sites. The proposed amendments require that sampling and analysis of additives occur only for leaded gasoline releases and when free product is encountered or when 40 ppm or greater TPH is detected at a depth greater than or equal to the depth of the water table. Both of these criteria provide an indication of potential additive contamination which would warrant investigation.

The Department is using EPA's MCLs for lead and EDC. The cleanup standard for EDB was set at 1 ppb since this is the PQL for EPA Methods 8240 and 8010. EPA Method 504 allows for detection below the MCL of .05 ppb, however, this is a drinking water method and may not be applicable to the relatively turbid samples from LUST sites.

Cleanup Technologies

Additional treatment of these compounds may not be necessary in a typical pump and treat operation. EDB and EDC are relatively volatile compounds and should be susceptible to air stripping.

Treatment of lead compounds will vary from site to site. In some cases, the mobility may be such that cleanup may not be necessary. In other cases, depending on the predominant form of lead being dealt with, granular activated carbon or chemical precipitation or ion exchange treatment will probably be necessary to take care of the problem.

POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

Background

The issue of PAHs first surfaced in the UST Cleanup Program in 1990 when the Department began looking for ways to insure that the cleanup signoff adequately protected public health, safety, welfare and the environment on sites which had petroleum contamination in the groundwater.

Regional offices had identified sites where no Benzene, Toulene, Ethylbenzene, and Xylenes (BTEX) were detected but significant levels of Total Petroleum Hydrocarbons (TPH) were evident. Due to the fact that TPH is non-specific, it does not work well as a cleanup parameter for groundwater conatmination. The Division toxicologist researched the topic and found that there is no toxicological data for TPH. The situation is further compounded by the fact that the lowest detection limit we might reasonably expect is .5 ppm (500 ppb). This is three orders of magnitude greater than the proposed Maximum Contamination Levels (MCLs) for carcinogenic PAHs and 20 times greater than the health based standards for Naphthalene, one of the most soluable and mobile PAHs.

Field Data

Sampling data from several sites indicates that PAHs do appear at some diesel and heating oil releases. The information from some of these sites is attached, and is summarized below in terms of how the PAH portion of the proposed rules would affect the project.

1. Cleanup Naphthlene to standard of 28 ppb.

2. No impact. All levels are below proposed cleanup standards.

3. Cleanup Naphthalene to standard of 28 ppb.

4. None for non-carcinogenic PAHs (all below cleanup standards). Cleanup groundwater to standards required for carcinogenic PAHs.

5. None for Acenaphthene and Fluorene. Cleanup Naphthalene to standard of 28 ppb.

6. Cleanup Naphthalene to standard of 28 ppb.

7. Many cleanup requirements for carcinogenic and non-carcinogenic PAHs would need to be met at this site. Good example of problems at a site despite no detection of BTEX.

8. Cleanup Naphthalene to standard of 28 ppb.

9. Cleanup Chrysene to standard of .2 ppb.

Proposed Sampling Requirements

Sampling and analysis for PAHs are only required in certain situations, and are not required for every diesel or heating oil release. As stated in the proposed rules, PAH sampling would be required for a diesel, waste oil or other non-gasoline petroleum hydrocarbon release where either free product is found floating on the groundwater, or TPH levels greater than 100 ppm have been found in any soil sample collected at or below the seasonal high water table. The TPH level in the groundwater-soil interface gives an indication of a potential PAH problem in the groundwater which warrants PAH sampling. The attached page from the September 23, 1991 Federal Register contains a table indicating the likelihood of finding PAHs at waste oil releases.

Cleanup Standards

The Department is proposing cleanup standards for PAHs based on field data, EPA's concern about these contaminants as expressed through proposed MCLs, and the Department's mandate to protect groundwater for all current and potential beneficial uses.

The Department is using EPA's proposed MCLs as cleanup standards for carcinogenic PAHs. While the earlier version of the proposed rule amendments contained health-based standards of .003 as a goal for all PAHs, several public comments received by the Department found this confusing and suggested using the MCLs for the current cleanup standard. As technology improves, and more protective levels are obtainable, the Department will evaluate and modify the cleanup standards accordingly. Health-based standards are used as the cleanup standards for non-carcinogenic PAHs.

Cleanup Technologies

In the July 25, 1990 Federal Register (attached), where EPA's proposed MCLs for PAHs are stated, activated carbon is shown as a technology which is able to achieve the proposed cleanup levels. The Department can require the use of an activated carbon system, under existing rules, if site conditions warrant that approach. However, it should be noted that PAHs degrade more rapidly in surface water when exposed to sunlight and higher dissolved oxygen concentrations. In most cases, the additional technology will not be required. The tank owner or responsible person does need to meet existing Federal and State water quality discharge permit requirements in order to insure protection of public health, safety, welfare and the environment.

waste stated that certain used oils should not be classified as hazardous. After EPA published its decision not to list used oil as hazardous waste (51 FR 41900, November 19, 1986), several commenters submitted data regarding the composition of and constituent concentrations in used oils generated at their facility or facilities. The Agency has reviewed this newly submitted data, which is located in the docket for today's notice, and will consider the data in making a decision to list. Comments are welcome on the newly submitted data, as discussed below.

Reynolds Metal Company submitted analytical data regarding the constituent levels in used oils from three aluminum rolling plants as well as oil sludge residue resulting from oil treatment. Additional data on aluminum mill oil was submitted by Alumax. Reynolds analyzed two types of oil before and after use: A light weight synthetic oil and a water-based oil emulsion. The data submitted suggest that metalworking oils generated in the aluminum rolling process do not typically exhibit the TC for metal contaminants.

Reynolds conducted additional analyses of the same three types of virgin and used oil samples for organic constituents. The data for volatile organics indicate that virgin and used metalworking oils employed by Reynolds in the production process do not exhibit the TC characteristic. For semi-volatile organics, the data for samples of water-based oil emulsion indicate that this type of oil does not exhibit the TC for semi-volatiles. However, data for samples of lightweight synthetic oil and petroleum solvent were submitted with such high detection limits that the Agency is precluded from rendering an opinion.

Alumax submitted data on two samples of rolling oil from one mill operation. The samples were of cold mill oil and hot mill oil. Analytical data indicate that toxicity characteristic constituents are not present at levels of regulatory concern in the two samples and detection limits were well below the regulatory level. Further, Alumax provided analytical data on volatile and semi-volatile constituents in each of the two samples, which indicate that the constituents are not present at levels of regulatory concern.

The Agency believes that data submitted by Reynolds Metal Company and Alumax for metalworking oils used in aluminum mills may support the conclusion that these oils generally do not exhibit the toxicity characteristic and are not hazardous at the point of generation. EPA requests comments on the used oil data submitted by Reynolds and Alumax that can be found in the RCRA Docket for today's notice.

In addition, Reynolds submitted data regarding the characterization of an oil sludge. It is not clear from the information whether the sludge is a distillation bottom from a vacuum distillation process employed in the recovery of oil or whether the sludge is from the wastewater treatment process. Further, Reynolds did not submit any TCLP analysis data on oily sludges. The Agency encourages Reynolds and other commenters to submit process information, characterization, and additional data concerning such sludges.

5. Results

a. *Compositional analysis.* As previously discussed, EPA determined the constituent concentrations found in the liquid phase of the sample after filtration. The summary of the sampling and analysis study results is presented in Table III.C.3, which shows the data separately for each category of used oil sampled and analyzed.

TABLE III.C.3A.—USED OIL SAMPLING AND ANALYSIS SUMMARY

Constituent	Automotive crankcase oil—Unleaded gasoline engines			Automotive oils/fluids—Storage tank samples			Diesel engine crankcase oil—from truck and buses			Diesel truck/bus maintenance—Facility storage tanks			Diesel heavy equipment—Crankcase oil		
	Number of samples		Concentration range (ppm)	Number of samples		Concentration range (ppm)	Number of samples		Concentration range (ppm)	Number of samples		Concentration range (ppm)	Number of samples		Concentration range (ppm)
	Analyzed	Contaminant detected		Analyzed	Contaminant detected		Analyzed	Contaminant detected		Analyzed	Contaminant detected		Analyzed	Contaminant detected	
Arsenic	12	0	<1	8	0	<2.4	10	1	2	10	1	0.39	10	0	<1
Barium	12	5	1.0–43	8	3	11.6–32.6	10	2	1.5–6.4	10	2	9.7–76.4	10	1	1.5
Cadmium	12	7	0.5–3.4	8	5	1.0–5.0	10	2	0.7–3	10	6	0.27–1.9	10	6	0.8–4.5
Chromium	12	10	0.8–23	8	3	2.67–5.0	10	5	1.8–7.1	10	2	2.45–7.0	10	5	1.5–8
Lead	12	12	5.5–150	8	8	29–345	10	10	2.9–19.0	10	9	8.0–133	10	8	1–33.0
Benzene	7	6	0.53–13.2	6	5	0.28–420	2	0	ND	2	2	19.3			NA
Trichloroethylene	7	0	<25	6	0	<50	2	0	ND	2	1	1.0			NA
Perchloroethylene	7	0	<25	6	4	89–1700	2	0	ND	2	1	.74			NA
Trichloroethane	7	1	25	6	3	51–2100	2	0	ND	2	1	60			NA
Tetrachloroethanes	7	0	<25	6	0	<50	2	0	ND	2	0	<2			NA
Benzo(b)fluoranthene	4	4	13–91	3	3	5–19	4	1	1.5	4	2	2.4–46	2	0	<5
Benzo(k)fluoranthene	2	2	10–22	3	3	1.9–12	4	1	1.1	3	1	1.2	2	0	<5
Benzo(a)pyrene	4	4	25–86	3	3	7.3–24	4	1	2.0	4	1	3.0	2	0	<5
PCBs	2	0	ND	3	0	ND	1	0	ND	1	0	ND			NA

(1) Analyte concentrations in TCLP filtrate. ND=Constituent not detected. Detection limits varied with matrix affects. NA=Not analyzed. Revised: 2–12–91.

CAS No.	Contaminant	MCL (mg/l)
(1)–(18) [Reserved]		
(19) 75–09–2	Dichloromethane	0.005
(20) 120–82–1	1,2,4-Trichlorobenzene.	0.009
(21) 79–00–5	1,1,2-Trichloroethane.	0.005

(b) The Administrator, pursuant to section 1412 of the Act, hereby identifies as indicated in the Table below either granular activated carbon (GAC), packed tower aeration (PTA), or both as the best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant level for synthetic organic contaminants identified in paragraphs (a) and (c) of this section:

BAT FOR SYNTHETIC ORGANIC CONTAMINANTS LISTED IN SECTION 141.61 (a) and (c)

CAS	Chemical	GAC	PTA
50–32–8	Benzo(a)pyrene*	X	
75–99–0	Dalapon	X	
75–09–2	Dichloromethane		X
103–23–1	Di(ethylhexyl)adipate.	X	X
117–81–7	Di(ethylhexyl)phthalate.	X	
88–85–7	Dinoseb	X	
85–00–7	Diquat	X	
145–73–3	Endothall	X	
72–20–8	Endrin	X	
1071–53–6	Glyphosate	X	
118–74–1	Hexachlorobenzene.	X	
77–47–4	Hexachlorocyclopentadiene.	X	X
23135–22–0	Oxamyl (Vydate)	X	
1918 02–1	Picloram	X	
122–34–9	Simazine	X	
120–82–1	1,2,4-Trichlorobenzene.	X	X
79–00–5	1,1,2-Trichloroethane.	X	X
1746–01–6	2,3,7,8,-TCDD (dioxin).	X	

*[EPA is considering MCLs for other PAHs; the BAT would also be GAC.]

(c) The following Maximum Contaminant Levels for synthetic organic contaminants apply to community water systems and non-transient, non-community water systems.

CAS No.	Contaminant	MCL (mg/l)
(1)–(18) [Reserved]		
(19) 75–99–0	Dalapon	0.2
(20) 103–23–1	Di(ethylhexyl)adipate	0.5
(21) 117–81–7	Di(ethylhexyl)phthalate	0.004
	Butylbenzylphthalate	0.1
(22) 88–85–7	Dinoseb	0.007
(23) 85–00–7	Diquat	0.02
(24) 145–73–3	Endothall	0.1
(25) 72–20–8	Endrin	0.002
(26) 1071–53–6	Glyphosate	0.7
(27) 118–74–1	Hexachlorobenzene	0.001
(28) 77–47–4	Hexachlorocyclopentadiene.	0.05
(29) 23135–22–0	Oxamyl (vydate)	0.2
(30) 50–32–8	PAHs:	
	Benzo(a)pyrene	0.0002
	Benz(a)anthracene	0.0001
	Benzo(b)fluoranthene.	0.0002
	Benzo(k)fluoranthene.	0.0002
	Chrysene	0.0002
	Dibenz (a,h) anthracene.	0.0003
	Indenopyrene	0.0004
(31) 1918–02–1	Picloram	0.5
(32) 122–34–9	Simazine	0.001
(33) 1746–01–6	2,3,7,8,-TCDD (dioxin)	5×10^{-8}

10. In section 141.62 paragraph (b) is revised and a new paragraph (c) is added to read as follows:

§ 141.62 Maximum contaminant levels for inorganic contaminants.

(a) [Reserved]

(b) The maximum contaminant levels for inorganic contaminants specified in paragraphs (b)(2)–(6), (b)(9), and (b) (10)–(15) of this section apply to community water systems and non-transient, non-community water systems. The maximum contaminant level specified in paragraph (b)(1) of this section only applies to community water systems. The maximum contaminant levels specified in (b)(7) and (b)(8) of this section apply to community water systems, non-transient non-community water systems and transient non-community water systems.

Contaminant	MCL (mg/l)
(1)–(9) [Reserved].	
(10) Antimony	0.01/0.005
(11) Beryllium	0.001
(12) Cyanide	0.2
(13) Nickel	0.1
(14) Sulfate	400/500
(15) Thallium	0.002/0.001

(c) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant levels for inorganic contaminants identified in paragraph (b) of this section, except fluoride:

Bat for Inorganic Compounds Listed in § 141.62(b)

Chemical Name	BAT(s)
Antimony	2, 7
Asbestos	2, 3, 8
Barium	5, 6, 7
Beryllium	1, 2, 5, 6, 7
Cadmium	2, 5, 6, 7
Chromium	2, 5, 6 [2], 7
Cyanide	5, 7, 9
Mercury	2 [1], 4, 6 [1], 7 [1]
Nickel	5, 6, 7
Nitrate	5, 7
Nitrite	5, 7
Selenium	1, 2 [3], 6, 7
Sulfate	5, 7
Thallium	1, 5

[1] BAT only if influent Hg concentrations <10µg/l.
[2] BAT for Chromium III only.
[3] BAT for Selenium IV only.

Key to BATS in Table

1=Activated Alumina
2=Coagulation/Filtration
3=Direct and Diatomite Filtration
4=Granular Activated Carbon
5=Ion Exchange
6=Lime Softening
7=Reverse Osmosis
8=Corrosion Control
9=Chlorine Oxidation
10=Ultraviolet

PART 142—NATIONAL PRIMARY DRINKING WATER REGULATIONS IMPLEMENTATION

1. The authority citation for part 142 continues to read as follows:

Authority: 42 U.S.C. 300g–2, 300g–3, 300g–4, 300g–5, 300j–4 and 300j–9.

2. Section 142.14 is amended by revising paragraph (a)(4), by adding and reserving paragraphs (d)(4) through (d)(10) and by adding paragraphs (d)(11) through (d)(17) to read as follows:

§ 142.14 Records kept by States.

(a) * * *

* * * * *

(4) Records of analyses for other than microbiological contaminants or turbidity shall be retained for no less than 10 years and shall include at least the following information:

(i) Date and place of sampling.

(ii) Date and results of analyses.

* * * * *

(d) * * *

* * * * *

(4)–(10) [Reserved]

(11) Records of any determination of a system's vulnerability to contamination made pursuant to §§ 141.23(b), 141.24 (g) and (h), and 141.40 (n) and (o). The records shall also include the basis for such determination. A copy of the most

ALCHEM LABORATORY

104 W. 31st Street
Boise, Idaho 83714
(208) 336-1172

(1)

DATE COLLECTED: 12/03/90
TIME COLLECTED:
DATE RECEIVED: 12/04/90
DATE REPORTED: 12/27/90
SUBMITTED:

PROJECT or SITE: M-3 (WATER) SAMPLE I.D.: M-3

LABORATORY REPORT FOR POLYNUCLEAR AROMATIC HYDROCARBONS

LAB SAMPLE NUMBER - 9200

COMPOUND	ANALYTICAL RESULTS (mg/l)
Acenaphthene	<0.2
Acenaphthylene	<0.2
Anthracene	<0.1
Benzo(a)anthracene	<0.2
Benzo(a)pyrene	<0.1
Benzo(b)fluoranthene	<0.2
Benzo(ghi)perylene	<0.2
Benzo(k)fluoranthene	<0.2
Chrysene	<0.1
Dibenzo(a,h)anthracene	<0.2
Fluoranthene	<0.1
Fluorene	<0.1
Indo(1,2,3-cd)pyrene	<0.2
Naphthalene	0.38
Phenanthrene	0.34
Pyrene	<0.1

Date Analyzed: 12/26/90

Analyst: DALE MYERS

Dale Myers

Dale Myers, Laboratory Director

PACIFIC ENVIRONMENTAL LABORATORY INC

PEL REPORT NUMBER:
CLIENT:
JOB REFERENCE:
PROJECT:
DATE: November 20, 1991
ITEMS: Six Soil Samples
Four Water Samples

(2)

METHOD: PAH's by EPA 8270
Results in ug/L (ppb)

Compound	RW-4	Lab Blank	Detection Limit
Acenaphthylene	0.22 420	ND	0.10
Acenaphthene	1.7 —	ND	0.10
Anthracene	1.4 2100	ND	0.10
Benzo(a)anthracene	ND	ND	0.10
Benzo(a)pyrene	ND	ND	0.10
Benzo(b)fluoranthene	ND	ND	0.10
Benzo(ghi)perylene	ND	ND	0.10
Benzo(k)fluoranthene	ND	ND	0.10
Chrysene	ND	ND	0.10
Dibenzo(ah)anthracene	ND	ND	0.10
Fluoranthene	ND	ND	0.10
Fluorene	1.8 280	ND	0.10
Indeno(1,2,3-cd)pyrene	ND	ND	0.20
2-Methylnaphthalene	0.83 —	ND	0.10
Naphthalene	0.76 29	ND	0.10
Phenanthrene	1.2 —	ND	0.10
Pyrene	0.34 210	ND	0.10

8270 Surrogate Recoveries (%)

Compound	RW-4	EPA Limits
d5-Nitrobenzene	70	35-114
2-Fluorobiphenyl	60	43-116
d14-Terphenyl	101	33-141

Analysis for PAH's is conducted using normal 8270 method and GC/MS in SIM mode. Detection limits are from SIM analysis. This method is equivalent for PAH analysis by 8310 for OR UST fuel program, per Rick Gates, OR DEQ.

Table 2. Laboratory Analytical Results - Groundwater [redacted]

Sample ID	Location	Date Sampled	B[1] (ppb)	T[1] (ppb)	E[1] (ppb)	X[1] (ppb)	TPH 418.1 (ppm)	8015 Modified	PAHs (ppb)	Gasoline Additives
MW-1[2]	WP-1	8/2/90	6300	300	540	1650	1.1			
MW-2[2]	WP-2	8/2/90	1700	80	400	1650	2.4			
MW-3[2]	WP-3	8/2/90	93	T[3]	8	41	1.9			
MW-4[2]	WP-4	8/2/90	ND	ND	ND	ND	ND			
MW-5[2]	WP-5	8/2/90	36	T[3]	3	13	ND			
MW-6[2]	Equipment Blank	8/2/90	32	4	3	12	ND			
WP-1	WP-1	7/9/91	2500	11	36	ND				
WP-2	WP-2	7/9/91	160	130	1,000	6,300	G/D[4] 65/42			
WP-3	WP-3	7/9/91	ND	ND	ND	ND				
WP-4	WP-4	7/9/91	ND	ND	ND	ND				
WP-5	WP-5	7/9/91	ND	ND	ND	ND				
SB-W5	SB-5	8/7/91	ND	ND	ND	.97				
SB-W6	SB-6	8/7/91	1,100	ND	250	55				
SB-W7	SB-7	8/7/91	100	4.3	23	19				
SB-W8	SB-8	8/7/91	.6	ND	ND	.9				
SB-W9	SB-9	8/7/91	.5	ND	ND	.5		ND		
WP-10	south side of Hwy	8/26/91	ND	ND	ND	ND				
WP-11	south side of Hwy	8/26/91	861	ND	11	15				
WP-11	south side of Hwy	9/2/91	560	3.5	6.0	7.3				
WP-13	south side of Hwy	9/2/91	1,200	17	9.7	36				
WP-12	east of UST excav.	8/26/91	3	ND	ND	ND				
MW-1	MW-1	9/9/91	ND	ND	ND	ND			ND	ND
MW-2	MW-2	9/9/91	1,800	13	260	140			150 naphthalene	ND
MW-12 (dup for MW-2)	MW-2	9/9/91	1,900	14	290	150				ND
MW-3	MW-3	9/9/91	ND	ND	ND	ND			ND	ND
MW-4	MW-4	9/9/91	ND	ND	ND	ND			ND	ND
TH-14	north side of Hwy	10/14/91	ND	ND	ND	ND				
TH-15	southwest side of Hwy	10/14/91	ND	ND	ND	ND				
TH-16	south side of Hwy	10/14/91	ND	ND	ND	ND				
TH-17	south side of Hwy	10/14/91	ND	ND	ND	ND				
TH-18	center of Hwy	10/14/91	230	57	420	640				
Maximum Contaminant Level (MCL)			5	2,000	700	10,000			28	Various[5]

Note:
[1]B - Benzene; T - Toluene; E - Ethylbenzene; X - Total xylenes. Monitoring well sample analyses for BTEX using EPA Method 8240. All other BTEX using EPA Method 8020.
[2]Samples collected by SRH, location has been renamed to reflect actual monitoring device.
[3]T - Trace.
[4]Gasoline/Diesel in 65/42 proportion.
[5]Gasoline Additives: 1,2-Dichloroethane, 5 ppb; 1,2-Dibromoethane, 1 ppb.

F-12

3

(4)

Table 2 (continued)

Polynuclear Aromatic Hydrocarbons in Water (EPA Method 8310)

Analyte	B-1	B-1 (Dup.)	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	Detection Limit, µg/l	DEQ Standard, µg/l
Napthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	1.0-50	28
Acenapthylene	ND	ND	ND	ND	ND	ND	115	ND	13	ND	1.5-75	Unknown
Acenapthene and Flourene	ND	ND	ND	ND	ND	ND	28	ND	16	ND	2.0-20	700
Phenanthrene	0.18	ND	ND	ND	ND	ND	ND	ND	4.4	ND	0.10-4	Unknown
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10-4	2,100
Fluoranthene	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.23-10	280
Pyrene	ND	ND	ND	ND	ND	ND	0.23	ND	1.5	3.1	0.20-22	210
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10-0.4	0.1
Crysene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.15-0.9	0.2
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.33	0.10-0.4	0.2
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11	0.05-0.4	0.2
Benzo(a)pyrene	0.14	ND	ND	ND	ND	ND	ND	ND	ND	0.13	0.05-0.4	0.2
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.05-1.3	0.3
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10-1.3	Unknown
Ideno(1,2,3-c,d)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10-1.7	Unknown

Analyte	B-10	B-11	B-12	B-13	B-14	B-15	B-17	B-18	B-19	B-20	Detection Limit, µg/l	DEQ Standard, µg/l
Napthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0-50	28
Acenapthylene	4.4	ND	2.6	5.7	ND	195	ND	ND	ND	ND	1.5-75	Unknown
Acenapthene and Flourene	ND	ND	ND	ND	ND	55	ND	ND	ND	ND	2.0-20	700
Phenanthrene	ND	ND	ND	0.14	ND	2.5	ND	ND	ND	ND	0.10-4	Unknown
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10-4	2,100
Fluoranthene	ND	ND	ND	0.28	ND	8.4	ND	ND	ND	ND	0.23-10	280
Pyrene	ND	ND	ND	ND	ND	2.3	ND	ND	ND	1.7	0.20-22	210
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	0.2	0.3	ND	0.3	0.10-0.4	0.1
Crysene	ND	ND	ND	ND	ND	ND	0.2	0.3	ND	0.5	0.15-0.9	0.2
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	0.55	0.3	0.5	ND	0.5	0.10-0.4	0.2
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	0.08	ND	ND	ND	0.2	0.05-0.4	0.2
Benzo(a)pyrene	ND	ND	ND	ND	ND	0.12	0.4	0.4	ND	0.4	0.05-0.4	0.2
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.05-1.3	0.3
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	0.12	ND	ND	ND	0.8	0.10-1.3	Unknown
Ideno(1,2,3-c,d)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10-1.7	Unknown

ND = None detected
NA = Not analyzed

All units in µg/l

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TABLE 4
Summary of Analytical Results for Groundwater Sampling

29-Nov-91

Monitoring Well Number	Sample Number	Date	Analytical Results				
			Method 8270*	Method 8020			
			PAHs	Benzene	Toluene	Ethylbenzene	Xylene
				(ppb)	(ppb)	(ppb)	(ppb)
MW-1	Not Sampled	-	-	-	-	-	-
MW-2	M2-W1	21-Nov-91	Detected*	**22**	0.88	1.9	27
MW-3	M3-W1	21-Nov-91	Detected*	**1,200**	280	55	1,200
MW-4	M4-W1	21-Nov-91	ND	ND	ND	ND	ND
Blank	M1-W1	21-Nov-91	Detected*	ND	0.54	ND	ND
Detection Limit			varies*	0.5	0.5	0.5	0.5
DEQ Guidance Cleanup Level			varies*	5	2,000	700	10,000

NOTE: DEQ = Department of Environmental Quality
ND = not detected above detection limit
PAHs = polynuclear aromatic hydrocarbons
ppb = parts per billion
TPH = total petroleum hydrocarbons
* = See Table 5

Bold numbers indicate concentrations in excess of DEQ guidance cleanup levels.

TABLE 5
Summary of Analytical Results for Groundwater
Polynuclear Aromatic Hydrocarbons (PAHs) - EPA Method 8310

29-Nov-91

Compound	Sample Number				DEQ Guidance Cleanup Levels	Laboratory Detection Limit
	M1-W1 (Blank)	M2-W1 (MW-2)	M3-W1 (MW-3)	M4-W1 (MW-4)		
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
Acenaphthylene	ND	ND	ND	ND	-	0.1
Acenaphthene	0.31	ND	0.18	ND	420	0.1
Anthracene	ND	ND	ND	ND	2,100	0.1
Benzo (a) anthracene	ND	ND	ND	ND	0.1	0.1
Benzo (a) pyrene	ND	ND	ND	ND	0.2	0.1
Benzo (b) fluoranthene	ND	ND	ND	ND	0.2	0.1
Benzo (ghi) perylene	ND	ND	ND	ND	-	0.1
Benzo (k) fluoranthene	ND	ND	ND	ND	0.2	0.1
Chrysene	ND	ND	ND	ND	0.2	0.1
Dibenzo (ah) anthracene	ND	ND	ND	ND	0.3	0.1
Fluoranthene	ND	ND	ND	ND	280	0.1
Fluorene	ND	ND	0.16	ND	280	0.1
Indeno (1,2,3-cd) pyrene	ND	ND	ND	ND	0.4	0.2
2-Methylnaphthalene	ND	ND	58	ND	-	0.1
Naphthalene	0.57	1.4	**93**	ND	28	0.1
Phenanthrene	ND	ND	0.16	ND	-	0.1
Pyrene	ND	ND	ND	ND	210	0.1

NOTE: EPA = U.S. Environmental Protection Agency
DEQ = Oregon Department of Environmental Quality
ND = not detected above detection limit
PAHs = polynuclear aromatic hydrocarbons
ppb = parts per billion
- = no limit

Bold numbers indicate concentrations in excess of DEQ guidance cleanup levels.

analyzed for TPH-G, and TPH-418.1M, since both gasoline and diesel had been previously detected. BTEX analyses were also ordered on these samples because the groundwater was encountered. Two water samples were also taken at this time from the recharging cavity. Since the site had both gasoline and diesel detected, the water samples had to be tested for both BTEX Tank and polynuclear aromatic hydrocarbons (PNAs). These samples were placed on ice and delivered to Pacific Environmental Laboratory.

(6)

TEST RESULTS II

PEL #91-3821
Method: PNA
Results in μg/L (ppb)

Compound	H2-PAH	Allowable
Acenaphyhylene	0.16 ppb	..
Acenapthene	0.46 ppb	420 ppb
Anthracene	ND	2100 ppb
Benzo (a) anthracene	ND	3 ppt
Benzo (a) pyrene	ND	3 ppt
Benzo (b) fluoranthene	ND	3 ppt
Benzo (ghi) perylene	ND	..
Benzo (k) fluorathene	ND	3 ppt
Chrysene	ND	3 ppt
Dibenzo (ah) anthracene	ND	3 ppt
Fluoranthene	ND	280 ppb
Fluorene	0.60 ppb	280 ppb
Indeno (1, 2, 3-cd) pyrene	ND	3 ppt
2-Methylnaphthalene	52 ppb	..
Naphthalene	55 ppb	28 ppb
Phenanthrene	0.42 ppb	..
Pyrene	ND	210 ppb

PEL #91-3821
Method: TPH-G & TPH-418.1M
Results in mg/kg (ppm)

Sample ID	TPH-G	TPH-418.1M
SW-8.5-E	40	13
SW-8.5-W	ND	9

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TABLE 1. RESULTS OF WATER SAMPLES

Notes: BTEX = Benzene, Toluene, Ethylbenzene, Xylene.
PAHs = Polynuclear Aromatic Hydrocarbons: BkF = Benzo(k)fluoranthene, Py = Pyrene, Anth = Anthracene, BaA = Benzo(a)Anthracene, Chyr = Chyrsene, Nap = Napthalene, Phen = Phenathrene.
ND = Not Detected; na = not applicable.

Well Number	Date Sampled	Results BTEX	Results PAHs (ppb)	Cleanup Level(ppb)
MW-1	9-5-91	ND	ND	na
MW-2	8-12-91	ND	BkF 0.256	0.2
MW-3	8-12-91	ND	ND	na
MW-4	8-12-91	ND	BkF 1.24 Py 5.79	0.2 210.
MW-5	9-5-91	ND	BkF 0.375	0.2
MW-6	8-12-91	ND	ND	na
MW-7	9-5-91	E 6.0 ppb X 51. ppb	Anth 8.59 BaA 3.16 Chyr 7.55 Py 5.67	280. 0.1 0.2 210.
MW-8	9-5-91	ND	BaA 3.13 Chyr 7.41 Nap 2.82 Phen 1.60 Py 5.65	0.1 0.2 28. ?? 210.
MW-9	9-5-91	ND	BaA 3.08 BkF 0.56 Chyr 7.55 Phen 1.59 Py 5.90	0.1 0.2 0.2 ?? 210.
Blank	8-12-91	ND	Anth 8.59 Chyr 7.60	280. 0.2

DATE: June 17, 1991
ITEMS: Eight Soil Samples
Nine Water Samples

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METHOD: PAH's by EPA 8270
Results in ug/L (ppb)

Compound	4596.10-15	Detection Limit
Acenaphthylene	ND	300
Acenaphthene	ND	300
Anthracene	ND	300
Benzo(a)anthracene	ND	300
Benzo(a)pyrene	ND	300
Benzo(b)fluoranthene	ND	300
Benzo(ghi)perylene	ND	300
Benzo(k)fluoranthene	ND	300
Chrysene	ND	300
Dibenzo(ah)anthracene	ND	300
Fluoranthene	ND	300
Fluorene	ND	300
Indeno(1,2,3-cd)pyrene	ND	300
2-Methylnaphthalene	1,500	300
Naphthalene	2,000	300
Phenanthrene	ND	300
Pyrene	ND	300

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Date Received: 09/19/91
Date Extracted: 09/25/91
Date Analyzed: 09/27/91

(9)

Polynuclear Aromatic Hydrocarbons
EPA Methods 3510/8310
µg/L (ppb)

Sample Name:		MW-1-991	MW-2-991	MW-3-991
Lab Code:		K5395-1	K5395-2	K5395-3
Analyte	**MRL**			
Naphthalene	1	ND	ND	ND
Acenaphthene	1	ND	ND	ND
Acenaphthylene	1	ND	ND	ND
Fluorene	0.2	ND	ND	ND
Phenanthrene	0.1	ND	0.4	ND
Anthracene	0.1	ND	ND	ND
Fluoranthene	0.2	ND	ND	ND
Pyrene	0.2	ND	ND	ND
Benz(a)anthracene	0.1	ND	ND	ND
Chrysene	0.1	ND	0.7	ND
Benzo(b)fluoranthene	0.2	ND	ND	ND
Benzo(k)fluoranthene	0.1	ND	ND	ND
Benzo(a)pyrene	0.1	ND	ND	ND
Dibenz(a,h)anthracene	0.1	ND	ND	ND
Benzo(g,h,i)perylene	0.2	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.1	ND	ND	ND

MRL Method Reporting Limit
ND None Detected at or above the method reporting limit

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Approved by Ann Elliott Date 10/11/91

TRIGGER LEVELS FOR CONTAMINANTS OF CONCERN

When developing groundwater cleanup levels for petroleum products, the department considered including more specific guidance on when certain types of tests would be required. One idea that was considered was using soil matrix cleanup levels as "screening" or "trigger" levels for certain tests. The thought behind this is that soil contaminant levels found above the water table which are in excess of matrix standards are expected to have an adverse impact on groundwater, therefore, if these levels are measured in soils that are at or below the water table (i.e., mixed in with the groundwater), there would certainly be an adverse impact.

To test the possible use of matrix standards for screening levels, the department estimated petroleum product concentrations in the soil below the water table that may result in groundwater contaminant levels exceeding safe drinking water standards. Note that this differs from the approach used for the department's draft hazardous substance soil cleanup levels (SOCLEAN) because we are dealing with contamination that is already mixed in with the groundwater. Therefore, there is no attenuation from transport down through the vadose zone. The following two cases were considered:

1. No dilution (possible worst case) -

Assume that we have contamination in a porous medium with 0.1% organic carbon (f_{oc} = 0.001). The distribution of contaminants between the soil and the water is controlled by the partition coefficient (K_p), where:

$$Kp = \text{Soil Concentration/Water Concentration} \quad [1]$$

For organic compounds, the magnitude of K_p can be estimated from the equation:

$$K_p = f_{oc} * K_{oc} \quad [2]$$

where Koc is the organic-carbon partition coefficient, a parameter that can be found in most environmental fate reference books. The soil concentration of a specific contaminant (S_x) that will be measured when the water concentration of that same contaminant (W_x) is known can then be calculated from a combination of [1] and [2]:

$$S_x = f_{oc} * K_{oc} * W_x \quad [3]$$

To estimate the petroleum product concentration in the soil (S_p), the result of [3] must be divided by the fraction of contaminant in the product (f_x). The final relationship then becomes:

$$S_p = (f_{oc} * K_{oc} * W_x) / f_x \quad [4]$$

Setting the water concentration (W_x) at the safe drinking water level, equation [4] was used to estimate petroleum product levels

in the soil that might result in excess contaminant levels in this worst-case situation. Results are shown in the table below.

2. Allowing for dilution -

Since the saturated zone soil pore-water concentrations estimated in the previous example may be high due to the fact that contaminant levels are attenuated by normal dispersion processes, a second concentration was estimated allowing for dilution. To account for dilution, soil contaminant concentrations were calculated which would theoretically produce groundwater concentrations at safe drinking water levels if the soil sample were tested using EPA's Synthetic Precipitation Leaching Procedure (SPLP, EPA Method 1312). The equation for this is:

$$S_p = [(f_{oc} * K_{oc} + 20) * W_x] / f_x \qquad [5]$$

Note that the form of equation [5] is similar to equation [4] with the addition of a factor of 20 to account for mixing 100 grams of soil with 2000 grams of water required for the test. The results of this calculation are shown in the table below.

Estimated petroleum product soil contaminant levels which may result in groundwater levels in excess of safe drinking water standards.

Contaminant/Product	f_x	K_{oc}	W_x (ppm)	S_p (ppm) [4]	S_p (ppm) [5]
Equation ---------->					
Benzene/Gasoline	0.05	83	0.005	0.008	2
EDC/Gasoline	0.0003	14	0.005	0.2	330
Benzene/Diesel	0.002	83	0.005	0.2	50
Naphthalene/Diesel	0.005	1300	0.028	7	120
Chrysene/Fuel Oil #6	0.001	200000	0.0002	40	44

Analysis of these results show that the only compound for which the possible trigger level is consistently low is benzene in gasoline. It is, therefore, recommended that any detectable levels of gasoline found at or below the water table should require further testing for benzene and related compounds (BTEX). Since, the levels of the other compounds are not likely to be a concern until product contamination is in the range of 50 - 100 ppm or more, it seems reasonable to recommend that Level 1 soil matrix standards (40 ppm for gasoline and 100 ppm for diesel and other non-gasoline products) be used as trigger levels in the proposed groundwater rules.

Attachment G
Agenda Item
6/1/92 EQC Meeting

HEARINGS OFFICER REPORTS

Summary of Procedures

Public Hearings were held as shown in Attachment D.

The purpose of the hearings was to receive testimony on proposed amendments to the UST Cleanup Rules. Public Notice was given prior to the hearings. The opportunity was provided for the public to present oral and/or written testimony at the hearings. Written comments were also accepted by the Department through January 31, 1992.

Additional hearings were held on April 16, 1992 to offer the general public and regulated community an opportunity for further comment. Public Notice was given prior to these hearings and written comments were also accepted through April 17, 1992.

Included in this attachment are the Hearings Officer Reports for the hearings held, as well as copies of written testimony submitted to the Department at the hearings.

Copies of all written comments received during both public comment periods has been compiled in Attachment I and is available upon request.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Alan Kiphut, Hearings Officer A.K.

SUBJECT: Report on the Public Hearing held in Portland, Oregon on January 15, 1992 concerning the proposed revisions to the UST Cleanup Rules (OAR 340-122-205 to 340-122-360).

List of Witnesses

38 people attended the hearing.
7 people gave oral testimony.
3 people submitted written testimony.

The people testifying were:
Michael H. Fitz, Starr Oil Company
Brian Boe, OPMA
Lila C. Leathers, Leathers Oil/OPMA
Douglas A. Smith, RZA-AGRA
Glenn Zirkle, Western Stations Company
Chris Wohlers, ATEC Associates, Inc.
Jean Cameron, Oregon Environmental Council

Comments from those testifying

1. **Michael H. Fitz, Starr Oil Co./ Oil Petroleum Marketers Association, 232 N.E. Middlefield Rd., Portland, OR 97211.**

There are not a lot of tank owners in the room tonight - those people most affected by these rules. I'm not talking about large companies - they could care less what you (DEQ) do. I mean the small independent operators. You mention in the handout that there was a "perceived need" for these rules. There is a perceived need. Our industry came to you because we needed help; to ensure that we are treated the same throughout the state. We were asking for help because of non-thinking reactions by DEQ personnel. Not all instances in the real world fit into regulations. We were asking for help, so there was a perceived need for some of the regulations you are looking at. But, your recommendations as published were not unanimously approved by your committee. The two representatives on that committee who represent our interests as tank owners were not present. So those recommendations were not unanimous.

You're reaching so far out on this one and establishing standards of 3 parts per trillion; just saying that any tank hole anywhere in the state has these kind of standards is being kind of ridiculous. There are two other states out of 50 that contemplate reactions like this. You list Washington, but I couldn't find anywhere, talking to any people in Washington, where they talked about those standards being applied to a tank hole.

In closing, one other thing I would like to say is that in this state not all water is drinking water. Its a very obvious fact. Standards need to be written one way where a petroleum release is impacting drinking water and they need to be implemented another way where they're impacting groundwater and we know that we can safely clean that up and allow it to biodegrade and we will not impact the health of the population of the state of Oregon.

Everyone in our business is very conscious of what happens to the people in this state and what an impact we have on them. No one here is saying that we should leave petroleum in the groundwater. But when you write rules we think there should be two distinct levels: one level of rule for groundwater; the other level of rule for when you're impacting drinking water. Now you gentlemen working for DEQ have a location on Columbia Blvd. in St. Johns in North Portland. 110 feet below the street, you've got a real mess. The government's going to pay for that one. Are you thinking about putting these standards on the cleanup for the St. Johns Landfill? And if you do, do you think you'll get it done in our lifetime?

2. **Brian Boe, Oregon Petroleum Marketers Association.**

Read written testimony (see attached).

3. **Lila Leathers, CEO, Leathers Oil Co., President, OPMA.**

Read portions of written testimony (see attached).

4. **Douglas A. Smith, RZA-AGRA, 7477 S.W. Tech Center Dr., Portland, OR.**

I'm a hydrogeologist with RZA. We currently have about 75 active groundwater treatment systems operating and I wanted to make some comments about the economic impact. An Impact Statement was put together - Attachment C of the handout. In the second paragraph there were some rough calculations as to what the additional costs would be associated with doing additional testing for PAHs and additives. I'd like to preface my remarks by saying that I'm not necessarily opposed to PAHs being regulated, but I think its important that people understand the cost of doing business. I think that what the Impact Statement implies is that additional costs will simply be the laboratory testing of the additives and PAHs.

There are actually two other factors that I think are going to be much more expensive. The first one is having to deal with the issue of the PAHs and additives during the investigation stage, during preparation of Corrective Action Plans, quarterly monitoring. If you add that up, you're probably looking at equal or more than the cost of just doing laboratory testing on three

wells for three years. But the thing I think is actually going to be much more of an economic impact is the fact that once you regulate these constituants you're going to have to clean them up, and the remedial technologies that may be necessary for PAHs and gasoline additives may be completely different than the remedial technology you're going to use if they're not being regulated and you don't even know they're there.

So, in other words, rather than a 5-10% increase in a typical groundwater cleanup cost (the Impact Statement gives a range of $100,000 to $250,000), I think there are going to be cases where you're going to be looking at a 200-300% increase, specifically if things like lead are present and air stripping technologies or oil/water separators and things like that are not going to work to remediate those constituants - and same with the PAHs. I spoke with people at Michigan and New York, two of the states that regulate PAHs. I tried to get some information about the track record for cleanups of PAHs and apparently there is not very much data at this time, but the residence time of those constituants is a lot longer than other compounds. Its not just going to be a matter of testing these things; its going to be a matter of testing them, cleaning them up and documenting that.

5. **Glenn Zirkle, Western Stations Co., P.O. Box 5969, Portland, OR 97228.**

We appreciate the time and effort the advisory committee has spent in proposing these rules for cleanup of the groundwater. The volume of the technical data in just these few pages of proposed rules causes our industry to recoil with great caution from the proposed recommendations. Though it is purported to be of no additional cost to the DEQ, it is of tremendous cost to the regulated industry. Oregon is one of 14 states which has no state cleanup fund.

Although we agree with your goal of protecting the environment, we strongly disagree with your conclusion as to the achievableness of the proposed rules. There are only 5 states who are currently regulating the PAHs, and this proposal choses the strictest levels of testing among those five states. Industry can't help but wonder that 1) the cost/benefits of such extreme testing levels cannot yet be quantified with any degree of accuracy, 2) these proposed rules would expose industry to another onerous burden that shows us to have forgetton the lessons that we should have learned regarding the risk models for PCBs and PBBs which have now been proven to be vastly overstated. The asterisk at the bottom of page A-5 states that cleanup levels for PAHs are currently below the Practical Quantification Level (PQL). I would hope that the advisory committee would not propose this tight a standard. We don't know that the ecological and health benefits will offset the economic costs. Certainly data from 5 states in the

preliminary stages of setting up their programs cannot be a valid reference.

Under Attachment E, on the land evaluation statement, paragraph 2c states that "Environmental cleanup activities are neither specifically referenced in the statewide planning goals nor are they reasonably expected to have significant effects on resources or present or future land uses." Not only did we feel this to be an astoundingly bold statement, but it directly contradicts page A-7, paragraph 9, where deed restrictions are mentioned and it also contradicted Attachment C, paragraph 2, where the unreal example of three monitoring wells is addressed at a cleanup site costing $250,000. As has been mentioned by other people, 8 to 10 wells is more realistic for a cleanup site with that type of cost.

On page F-2, the draft rules are stated to not require PAH sampling at every site, but only those locations where diesel or heavier petroleum fractions are present. This conflicts again with A-5, where it specifically addresses that testing where gasoline contamination is present would be required. In California, the South Coast Air Quality Management District announced November 7, 1991 that it was easing back on its rules - rules which had set the standard for most of the nation - after 3,000 businesses were tabulated to have left the state due to the rules. I don't know how many jobs this represents, but we know its a large number and we would ask that the advisory committee look at their rule proposals again and propose rules that are not as tight a standards as they are proposing.

(Glenn also handed in written comments from John Phimister from Western Stations Co. - see attached)

6. Chris Wohlers, ATEC Associates, Inc., Portland, OR.

I'm still preparing written comments; as Doug mentioned, I'm contacting New York, Michigan and Minnesota and some of those states and still compiling some information, but I will submit written comments by January 31.

I was a member of the Environmental Cleanup Advisory Committee (ECAC) that reviewed these proposed regulations and I had originally requested, back in the summer of 1991, that additional supporting information be gathered before we proceeded because I felt that several of the proposed standards or indicators, in particular PAHs, EDB and EDC, might not be appropriate indicators at leaking underground storage tank (LUST) sites. Unfortunately, when the ECAC re-evaluated the proposed amendments in September I was in the hospital and couldn't attend that meeting. And I say unfortunately, because if I could have been there I would have voted at a minimum to delay releasing the proposed rules for public hearing. I say that for the following reasons.

First of all, in looking across the country at comparative standards in other states, staff's own research indicates that there are only a handful of states that have adopted PAH, EDB and EDC standards. And Washington, for example, while they have a PAH standard and an EDB standard, they don't require analysis for either one of those compounds at LUST sites. Its not a required analysis at a LUST site. Their analyses includes TPH, BTEX and lead, depending on the type of product that's used at the site. And that's just one example. Its not clear whether these other states listed in the regulations actually enforce these compounds and require these analyses on their LUST sites.

I think its important to have a more definitive picture of what and, maybe even more importantly, why other states are doing and how they're doing it. And I see the "why" as extremely important, and that's another reason I think for delay. I haven't seen hard data either from LUST sites in Oregon or from other states that would indicate that a compound like PAHs can typically, or as the proposal package states - frequently - be found at LUST sites. Perhaps, if they are found, they're found only in certain situations. Perhaps in a free product situation in a monitoring well. It would be extremely valuable and important to know what the answer to some of those questions are before we go ahead and adopt regulations that clearly, from previous testimony and common sense, are going to be very costly.

Which leads to another of my concerns. If, for example, PAHs are actually found to be of a concern at certain sites in certain situations, perhaps we can identify a more appropriate and cost effective indicator compound, perhaps something as simple as TPH. That could be tracked as remediation proceeds and then at the conclusion of the remedial activities retest for PAHs and go on from there. It would certainly avoid a significant cost factor.

And finally, perhaps the sampling frequency that's addressed in the proposed amendments - maybe we could reduce sampling frequency in certain and specific situations. For example, at a site where groundwater gradient is very clearly established and consistently re-established at each quarterly monitoring event - perhaps we could officially say that we'll sample upgradient wells only on a semi-annual or annual basis. That sort of approach would certainly provide DEQ with some valuable downgradient information, crossgradient information, which is what you really need, would certainly save on costs for the UST owners and operators and would also protect public health, safety, welfare and the environment.

For those reasons, I believe and strongly urge the Department to delay adoption of the proposed amendments to the regulations, until additional information is obtained, evaluated or re-evaluated, and/or modifications made to the proposed regulations. And, after all, what is really the practical price of delay. We

all know right now that there is a policy guidance document that all the regions are using. We are presumably and effectively implementing these groundwater standards right now in the state across Oregon. The delay would simply allow this temporary situation to continue while we get more definitive data. And certainly the delay would offer the opportunity to confirm staff's findings or perhaps modify them and to buffer costs for tank owners and operators.

I'd like to underline some other comments on costs. I think staff has done a yeoman's effort in putting together these regulations. I suspect, however, that the three monitoring well situation on a cleanup site is certainly the rare exception rather than the rule. In my experience throughout Oregon and the West, we're more commonly talking about six to ten monitoring wells. And if we look simply at the analytical costs, if we took an arbitrary average of eight monitoring wells per site, the total cost per year, just for the analytical, using the Department's $400 per well figure, is about $13,000 per year. Some of the people in this audience will have more than one site. In any particular year, under remediation some of the jobbers may have up to ten sites and at $13,000 a year, that's $130,000 a year in total additional costs. And, believe me, those are significant figures.

And also underlining Doug Smith's comments earlier, we haven't really even addressed the remedial aspects of cost and we can probably be sure that the heavier compounds, like the PAHs, won't be amenable to stripping and other volatilization approaches we use for some of the more common aromatics.

Again, thank you for the opportunity to provide comment. I hope we can delay these proposed regulations and perhaps put together a working group to come up with some alternatives.

7. Jean Cameron, Oregon Environmental Council, Portland, OR

(After testimony on the Environmental Cleanup Rules). Finally, I will just comment on the groundwater cleanup standards. We've noted at an ECAC hearing that these standards range from 1 in 10,000 to 1 in 1 million for carcinogens. As noted above, if the Department wishes to move away again from the background standard which is currently enforced for cleanup of groundwater, to a cookbook numerical formula for cleanups, whether for soil or groundwater, then OEC would state unequivocally that the numbers should be as conservative as possible. They should all be set at the 1 in 1 million level for additional cancers and no lower.

January 15, 1992

Dept. of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. 6th Avenue
Portland, OR 97204

CONCERNING: Comment on proposed cleanup
Standards OAR 340-170-205 thru 360

Gentlemen:

Western Stations Co. finally got a copy of the proposed Amendments to Regulations establishing ground water cleanup standards for various compounds at Leaking Underground Storage Tank (LUST) sites in Oregon, due for hearing on January 15, 1992. We had an opportunity to have some explanation given as to what this all means by an employee of an environmental company. We are greatly disturbed by the additional cost that will be added to a cleanup due to the added testing required.

I would like to start by saying that most small to medium jobbers only have so much money to spend. We are getting pinched on many sides for our spendable dollars. The oil companies want new modern looking gas stations, the E.P.A. wants new tanks and equipment to monitor them and the cleanup people want the cleanups done now.

Our small company spent close to a million dollars trying to make all these organizations happy in 1991. Over the last three years, I would put that figure at 2.5 million dollars. We are running out of cash and the banks are not too loose with money going into service stations. In 1991, on different projects, we spent the following amounts doing report and cleanup: $106,000, $42,000, $18,000 and $23,000 and some of these are only partially done. We also spent $35,000 in 1991 on tank and line tests and it looks like 1992 could reach $50,000. The government also requires a company our size to have environmental insurance which will cost us $83,000 for 1992 and cost us $92,000 in 1991. Where does it all end? We cannot continue to bear all these costs and remain in business. We are trying to be good citizens but your rules keep making it harder to comply.

I am concerned about the rules that are being proposed to test for PAH's, EDB's and EDC's. From reading the report and getting some input into some of the meanings, I do not see how you can go with a test result from a sterile lab situation.

Astro Western Companies
Western Stations Co.
Western Hyway Co.
Astro Management Co.
P.O. Box 5969 • 1466 N.W. Front Ave. • Portland, Oregon 97228-5969 • (503) 243-7899 • Fax (503) 243-7874

G-9

There are plenty of sites in Oregon where a survey could be performed for an actual real life situation. I am sure we would consider doing some sampling if D.E.Q. would pick up the cost of doing the experiment. This would give D.E.Q. some real hard core numbers to make a solid recommendation on these proposed rules. We hate to see Oregon add burdensome costs to projects, especially when there are no good records that the tests are needed.

Western Stations Co. and many of the independent station owners are good citizens and have concerns about having a clean and healthful environment to leave to our children. Most of us want to do what is legal and right but you have to be reasonable in what you request and be sure there is enough proof from real life situations to add the proposed testing to the rules.

The comment that the ECAC unanimously supports the proposed rule amendment is not quite true. There were two members absent that would have opposed these amendments going out to public hearing until more evidence could be provided to the true need of the testing. I would hope that the ECAC did not take advantage of this to shove this through to the hearing process.

I want to take the time to say that, in most cases, the D.E.Q. in Oregon has been very helpful and easy to work with on our problems. I would hope that the ECAC would reconsider these rules until more evidence can be produced to show the true need for the testing.

Yours truly,

John Phimister
Liaison Asst.
Western Stations Co.

JP:no

BOE ASSOCIATES, INC.
GOVERNMENTAL RELATIONS

319 SW WASHINGTON STREET
SPALDING BUILDING, SUITE 810
POST OFFICE BOX 157
PORTLAND, OR 97207

TELEPHONE 503.243-2489
TELECOPIER 503.243-2488

15 January, 1992

TO: Hearings Officer, DEQ

FROM: Brian Boe
Boe Associates. Inc. representing OPMA

RE: OAR 340-170-205 through 360

The matter that comes before this hearing today is of the highest priority for the members of the Oregon Petroleum Marketers Association (OPMA). I will not take the time today to detail the well publicized problems faced by small business petroleum marketers in meeting state and federal regulations pertaining to underground storage tanks, suffice to say they are extremely burdensome and on-going.

In addressing the proposed rules, I will restrict my comments to some general concerns that we feel must be resolved before the Department adopts these rules that will expand current testing requirements to include PAHs, EDB, EDC and lead. My testimony will be followed by more technical comments by Chris Wohler, a ground water specialist who currently works with many petroleum companies cleaning up UST releases.

Our first concern is that the Department present hard evidence that there is a real and present danger that these compounds exist in <u>all</u> sites subject to remedial action. As we understand it, the documentation relied upon to conclude that this level of testing is necessary was based on research conducted in a laboratory setting under conditions that do not represent prevailing conditions in Oregon. Given the potential financial impact that the proposed rules represent, we feel strongly that the Department should evaluate and conduct research to determine what extent these compounds are likely to be present and to what degree of concentration. It is simply not good enough to cite a laboratory study that suggests their presence may be a factor in Oregon UST releases. When decisions of this nature carry with them major financial impact, as we will document in a moment, the Department owes it to the regulated community to be absolutely certain additional testing for these compounds is necessary for the immediate protection of the public health, safety and welfare.

We also note that these compounds in question are not required for testing in our neighboring state of Washington. Give the similarity in climate and hydro-geology, it causes us to question why Washington would omit these compounds if they represent such a dire and immediate threat. In short, we do not feel that DEQ has conclusively proven the need for expanding the testing standards to include these new compounds. E-11

OPMA realizes that part of the Department's goal in proposing these rules was to achieve consistency between regions in facilitating UST site remediation. While we certainly support this goal, we are concerned that in pursuing this objective, you have over reached in the testing requirements you seek to standardize.

This concludes my written testimony. I will be happy to answer any questions.

Leathers Oil Co. Technology Serving You

January 15, 1992

Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, OR 97204-1390

RE: Commentary on Proposed Regulatory Revisions to OAR 340-170-205 through 340-170-360

Dear Interested Parties:

We have reviewed the proposed regulatory revisions for the establishment of groundwater cleanup standards. In general, we are in favor of the adoption of established standards regarding Underground Storage Tank (UST) systems. However, we disagree with several of the specific standards proposed, as follows:

1. **Required testing for gasoline additives:** The proposed rules require testing for EDB, EDC, and lead at sites where contamination is from gasoline. According to the laboratory we utilize for sample testing (Pacific Environmental Laboratory), EDB's and EDC's occur in roughly 1% of all samples tested for these compounds. It is not prudent to impose these sampling requirements on all cleanup sites for all monitoring wells. Although 340-122-255(5)(b) allows the Department the flexibility to waive testing for these components, in practice, all DEQ regional cleanup personnel will be bound to utilize these requirements in order to document that they have done an effective job of cleanup oversight (i.e., ensuring the public safety). This will result in this "extra" testing being performed on cleanup sites that do not require these additional costs.

   A more prudent solution would be to restrict the use of the EDB/EDC testing, but <u>allow</u> (not require) the regional cleanup personnel the flexibility to request these additional tests at sites (or specific wells) that portray the characteristics consistent with the presence of EDB's and EDC's (i.e., free product from a recent release).

2. **Required testing for PAH's:** Our arguments regarding PAH testing is about the same as for EDB/EDC testing. Pacific Environmental Laboratory indicates that only about 5-10% of such tests are positive. Given that PAH's are normally present only in monitoring wells where recent releases of free diesel product are encountered, the PAH test should be restricted to cases where these characteristics are present. The individual regional cleanup personnel could determine the use of these rules as applicable.

   We recommend that the proposed rules clearly reflect that there are cases where testing for EDB's, EDC's and PAH's are necessary and reasonable, and that these tests should be required by the cleanup staff only in instances where the appropriate characteristics dictate such tests.

3. **Comparative cost for lab testing of quarterly sampling, current BTEX standards versus proposed requirements for BTEX with EDB, EDC, lead, and PAH's.** The following table demonstrates the additional costs to

22300 S.E. Stark • Gresham, Oregon 97030-2654 • (503) 661-1244

responsible parties, utilizing a current Leathers Oil Company site which has 12 characterization/monitoring wells:

BTEX only	BTEX with EDB & EDC	Difference Columns 1&2	Lead	PAH's	Total wells	Total Cost
$125	$200	$75	$60	$250	12	$4,620
$125						$1,500

The difference between the current lab testing fees equals $385 for a single sample; all 12 wells total $4,620 for a quarter's sampling. For a year, the additional costs (for four quarter's samples) would be $18,480. **A three-year cleanup project would experience an additional $55,440 in expenses.** If this site eventually costs $100,000 to complete investigation and cleanup, the $55,440 would represent a cost increase of 55%. If eventual costs total $250,000, the cost increase would equal an additional 22%.

4. **General Summary:** In brief, Leathers Oil Company is concerned that implementation of the proposed rules is premature. A great many questions remain regarding the effectiveness of the additional testing (i.e, where such tests are warranted) that should be answered prior to the implementation of rules that affect all UST cleanup sites.

   While the proposed rules may increase the protection of public health and safety in some situations, the economic impact to gasoline retailers such as ourselves has not been adequately considered. The additional tests are promulgated in accord with a strictly scientific analysis, without proper consideration of the financial implications.

   We are in favor of performing the appropriate tests in circumstances that warrant such tests, but do not wish to experience these costs in circumstances that do not require such analyses. We ask that the Department seriously consider the economic and bureaucratic consequences of the proposed rules as well as the scientific justification prior to rule implementation.

   We respectfully request additional time for consideration and public input prior to implementation of the proposed rules.

Sincerely,

Lila C. Leathers
Chief Executive Officer

Brent Leathers
General Manager

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

EASTERN REGION

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
PUBLIC HEARINGS REPORT

Proposed Amendments to
Environmental Cleanup Rules
OAR 340-122-010 through 340-122-110

and

Proposed Amendments to UST Cleanup Rules
OAR 340-122-205 through 340-122-360

Hearing Date: January 16, 1992
7:00 to 9:00 PM

Location: Blue Mountain Community College
Pioneer Building, Room 148
2411 NW Carden
Pendleton, OR

Hearings Officer: Alan T. Schroeder
ODEQ Eastern Region

ODEQ Staff: Larry Frost, UST Program
Virginia Esmond, UST Cleanup Program
Michael Fernandez, UST Cleanup Program
Brooks Koenig, Environmental Cleanup Division
Holly Hoffnung, Interpreter

Hearings Summary

At 7:00 PM, the scheduled hearings start time, there were no persons present wishing to comment on the proposed amendments. At 7:30 PM, there were still no persons wishing to comment, although Mike Heller of Hermiston, OR did stop in to listen to testimony. With nobody present, Mr. Heller left.

With no comments by 7:30, the hearings for both the UST Cleanup rules and the Environmental Cleanup rules were closed. Instructions were left at the hearings location for anyone wishing to comment in writing on the proposed amendments.

Hearings Officer Alan T. Schroeder Date 21 JANUARY 92

G-15

700 SE Emigrant
Suite 330
Pendleton, OR 97801
(503) 276-4063

MEMORANDUM

TO: Environmental Quality Commission

FROM: Alan Kiphut, Hearings Officer A.K.

SUBJECT: Report on the Public Hearing held in Bend, Oregon on January 21, 1992 concerning the proposed revisions to the UST Cleanup Rules (OAR 340-122-205 to 340-122-360).

List of Witnesses

7 people attended the hearing.
2 people gave oral testimony.
No written testimony was submitted.

The people testifying were:
Mike Davis, Carson Oil Company
Mel Knutzon, Chevron U.S.A., Inc.

Comments from those testifying

1. Mike Davis, Carson Oil Company, Prineville, OR.

My primary concern this evening is in relation to the implementation of the regulations, or the haste in which it appears this whole process has taken. I think you'll find that in the past, the Petroleum Marketers have worked fairly closely with the DEQ and tried to recognize that we do have a common interest, whether we wind up in an adversarial role or otherwise. For the most part we've been pretty supportive of what's gone on.

I think the primary concern that I have is that we really haven't had much of an opportunity to take a look at what the regulations really are and what they mean in the long run, over the long haul. From the little bit of research I've been able to do at this point, we are looking at, in my opinion, a very low incidence rate on some of the tests that you're requesting to have run if the regulations go through, with a fairly high expense rate that goes along with that. I recognize that there is a condition that says that in certain circumstances we can wave those tests from being done, but history shows us that if there is something in place that says we have to use these tests, more than likely they will be used to cover somebody else's fanny, and that's understandable.

What I'm really requesting at this point is that we take a delay, give us a little bit more time to try to analyze things and put things together to better make a case to the DEQ.

2. Mel Knutzen, Chevron U.S.A., Inc.

I cover the Northwest region, which includes 11 states. Oregon is our second most active state. We have in excess of 100 sites, which are either having some action on or will be having action on over the next couple of years, due to construction or other things going on. We are working on more than sixty-some sites with DEQ now, and I have some concerns maybe about the additional testing being proposed for PAHs and the methodology they are going about - not only asking for testing on the site but to track these plumes as far as they go.

I think there needs to be some more work on the methodology and what's expected and the mechanics of things because as the regulation goes into place, such as this is here, each region tends to interpret them as conservatively as they feel that headquarters wants them to. Our concerns are about costs, and the second thing is the legalities that get involved in these. The concept of tracking these plumes as far as they go off site is difficult.

Chevron has been a very active company in trying to follow the law, and in many cases we're probably the first one in town, or one of few that's going out and making changes. When you have levels this low that are detectable, sometimes there is no effort to know if other people have had releases. You may have five or six stations within a block or two block area and the patterns with which they've set these levels and asked you to investigate, there is no protection within the system for us to not have to clean up other people's releases. There is no way to determine between your release and somebody else's release. The comments I've heard back from people within the DEQ is that they would just as soon have folks like us (Chevron) go out and find everybody's problem and then leave it up to us to have to file law suits or battle with other people in order to prove its somebody else's and not ours. The mechanisms really aren't there to really determine what is the end of one person's release and what is the beginning of another person's release or impact or effect.

Our costs in this state are relatively expensive. We've already spent more in environmental costs - maybe we're doing more than we should be doing, but we're trying to follow the letter of the law - its already exceeded probably 5 or 10 times over what we've earned in this state in the last year. I see these costs continuing to go up and there are comments that some of the additional testing they're asking for is $400 a pop. The attitude is if you're going to go out and spend $100,000 or $150,000 to clean up a site, whats another $10,000 or $15,000 for testing. But it is important.

We're paying some real premiums and I think some of what DEQ is trying to accomplish is very good. I think that they've got their testing and requirements ahead of how we can work out solutions. By writing the tough regulations like this, they've placed it as the responsibility of somebody else to figure out how it gets done. They're only monitoring what's there and saying "Looks like you have a problem". I think that it needs to be worked on alot more before it comes out as a regulation.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Brooks Koenig, Hearings Officer

SUBJECT: Report on the Public Hearing held in Eugene, Oregon on January 22, 1992 concerning the proposed revisions to the UST Cleanup Rules (OAR 340-122-205 to 340-122-360).

List of Witnesses

20 people attended the hearing.
4 people gave oral testimony
No written testimony was submitted.

The people testifying were:
Mark Younger, Younger Oil Co., Albany, OR.
Randy Boese, Bergeson-Boese & Assoc., Eugene, OR.
Steve Newcomb, Gem Consulting, Eugene, OR.
Mike Armstrong, Pacific Petroleum Corp., Eugene, OR.

Comments from those testifying

1. **Mark Younger, Younger Oil Co., Albany, OR.**

Basically, the only thing that I would ask is more time in order for us to review what is coming up. I just received the information three days ago through an OPMA newsletter. I don't know how we got left off your list. It seems we are signing up all the time to receive information from you, but either we're not getting it or we are getting passed over or something. It's hard to keep up with what's going on. We are currently doing everything we can to maintain clean facilities, but as the costs keep increasing, our insurance costs keep going up. Everything is just getting out of hand. We don't think we can keep up. Other people I've talked to don't think they can keep up.

I'm working with my grandfather on a site that he bought 30 years ago when he was still in the business. He retired 20 years ago. He's been using the site as an additional source of income in his retirement at $500 a month. He closed the service station two years ago, did soil testing, tank testing, everything came out fine. He pulled the tanks, found out he did have a problem which was from a previous set of tanks to the ones that he put in. Of course, he had signed a waiver saying that everything was his so he has consequently spent $30,000 and has not even begun to touch the groundwater yet. With the new rules coming out, there's just no way he can afford to do it. That is one thing, I think, that we really need to look at on the additional groundwater testing - is it absolutely necessary in every case?

2. Randy Boese, Bergeson-Boese & Assoc., Eugene, OR.

I would like to address the new testing requirements for groundwater at UST sites. Our firm has concluded that analysis of total lead in groundwater is not a reliable indicator of petroleum contamination at UST sites. An example, our firm has collected groundwater samples from approximately 90 monitoring wells during the past quarter. Lead has been detected above 5 parts per billion in nearly every well sampled. However, in approximately 50 of those wells, no presence of any other petroleum constituent has ever been detected. Based on this data, we have concluded that total lead detected in groundwater is most probably from native sediments.

The state of California LUFT Taskforce has stated in a LUFT field manual that due to difficulties in discerning between organic lead and total lead, analysis for lead should only be used under certain site specific conditions. An example would be at sites where leaded gasoline leaks, significant leaded gasoline leaks have occurred. Caution is advised, however. Background total lead concentrations must be known in order to distinguish between total lead and organic lead.

Addressing EDB and EDC. As given in Appendix I of the LUFT field manual, the concentration of benzene in gasoline in percent by weight is .12 to 3.5. Total BTEX ranges from 6.43 to 36.47. EDB ranges from $.7 \times 10^{-4}$ to .02, EDC from .02 to .03. EDB and EDC comprise less than one-fifth of one-tenth of a percent of gasoline by percent weight or one to three orders of magnitude less than benzene and total BTEX.

The same 90 wells that were sampled for lead were also sampled for EDB and EDC. EDB and EDC were detected in only three wells at one site at concentrations below 80 parts per billion. The wells were located near the original source of the release. The same wells also contained levels of volatile aromatic hydrocarbons in the tens of thousands of parts per billion.

Conclusion: Based on the very low concentration of EDB and EDC in gasoline, the chances of detecting EDB and EDC are low, and detection should only occur in instances where the concentration of BTEX is very high. Given existing requirements for testing of BTEX, analysis of EDB and EDC is essentially not necessary. The state of California states in their LUFT field manual that they have adequately studied petroleum fuels. This has lead the LUFT Taskforce to include and to justify requiring only testing for total petroleum hydrocarbons TPH and volatile aromatic hydrocarbons BTEX at UST sites. I'll send a written copy of my testimony later.

3. Steve Newcomb, Gem Consulting, Eugene, OR.

I represent Gem Consulting. We are a small consulting firm here in Eugene. There are a couple areas I want to address here. First of all is analytical methodologies, groundwater cleanup for UST sites. The first point I want to address is the PAH testing. In my opinion, and I'll back this up a little bit later, PAH testing provides the minimum amount of data for a high cost. Most of the listed PAHs have very low solubilities in water. A survey of labs, I called several labs in the area, indicates that less than 5 percent of the samples that they have analyzed have had detections for PAHs. The analysis cost is approximately $225 per sample. It seems like a lot of money for very little information.

Cleanup levels for carcinogenic PAHs are very near detection levels for those same PAHs. This presents the obvious risk of trying to clean up lab contamination or inaccurate detections. A question. Why is the 8310 analysis specified instead of an 8270 analysis with mass spec confirmation?

Lead. Total lead is not an appropriate analysis. Lead is a naturally occurring substance in Oregon sediments. The problem is that the test methodologies ask for unfiltered samples. This represents some major problems. Samples should be filtered to remove sediment from the sample for accurate results.

Gasoline additives EDB, EDC. Once again a survey of labs indicates these are very rarely shown up. Perhaps less than one percent of the samples analyzed have detections for EDB, EDC. Why were these additives selected and what is the benefit of testing for these additives?

I want to address cleanup levels. Cleanup levels currently are based upon drinking water standards. Other states have recognized that there are impacts to water in urban and industrial areas that make shallow water in these areas unfit for human consumption. There are areas in west Eugene with documented groundwater contamination, which represent a threat to human health if that water were to be consumed by humans. Yet, I can still install a well in these areas, put a screen in at 20 feet and drink that water. My question is, does the DEQ speak with the DWR? It seems that it would be more appropriate to restrict the use of this water for human consumption. Let me give you an example. Does it make sense for a station owner to cleanup 6 parts per billion of benzene in an area with a regional trichloro-ethane problem in the shallow groundwater? Is the DWR informed about regional groundwater problems? The obvious point here is that Oregon may think about considering different classification of groundwater areas and different criterion for these areas -- urban areas, industrial areas may have a less strict cleanup criterion.

I just want to ask some questions at the end. One thing that concerns me is I don't believe that a cost benefit analysis has been performed for PAHs, lead, EDB, EDC testing. Would the DEQ consider paying for these analyses until enough data has accumulated to demonstrate their effectiveness? Has the DEQ considered utilizing different criterion for groundwater cleanups in industrial areas, like the soil cleanup standards that will be discussed later this evening? And, finally, is there any communication between DWR and DEQ?

4. Mike Armstrong, Pacific Petroleum Corp., Eugene, OR.

I am vice president for Pacific Petroleum Corporation here in Eugene. I want to take a little different perspective than the last two speakers. It was interesting to hear their analysis since they are in the consulting business. And as Mr. Younger testified, those of us that are paying the bills out there are very, very concerned about any new regulations, including the existing regulations. You know, we are very concerned about cleaning up the environment and cleaning up some of the things that have been created. However, these things have been created over a long period of time and there is tremendous social costs that really we haven't taken a look at yet. Some things that have been occurring over the last forty or fifty years all of a sudden have to be handled immediately. These have tremendous economic impacts and also social impacts in our economy.

We want to make sure that when we set up standards that these things are looked at very closely and are really a true standard of which an accurate measurement can be gained in different circumstances. And, as Mr. Newcomb just testified, perhaps this has to be looked at, different standards in different areas. One of the things that I think we need to look at is the fact that in a lot of areas the water may not be used for human consumption where in other areas it is, and perhaps this has a factor in there. The biggest thing that I want to say in the testimony is the fact that we have to be very careful that we don't put all of us and a lot of customers out of business and have this adverse impact on not only the people in the business but the consumers and society in general.

MEMORANDUM

TO: Environmental Quality Commission

FROM: Rick Silverman, Hearings Officer RS

SUBJECT: Report on the Public Hearing held in Medford, Oregon on January 23, 1992 concerning the proposed revisions to the UST Cleanup Rules (OAR 340-122-205 to 340-122-360).

List of Witnesses

19 people attended the hearing.
2 people gave oral testimony.
No written testimony was submitted.

The people testifying were:
David H. Couch, Attorney at Law
Mike Hawkins, Hawk Oil Company

Comments from those testifying

1. David Couch, Attorney at Law, P.O. Box 1704, Medford, OR.

I've looked for a long time at these rules and I spent about two years on the Groundwater Advisory Committee appointed by Fred Hansen, Director of the Department of Environmental Quality and we talked about many of these same issues. What kind of goals are appropriate?

I want to commend the DEQ for their effort, in developing rules and standards, to appoint numerous technical advisory committees which are a broad spectrum of Oregon business as well as technical consultants and members of the public in adopting not only UST rules, Environmental Cleanup rules, but also the Groundwater Protection rules. I represent Oregon business. I represent a number of small businesses and large businesses, all of which are going to be impacted by the adoption of these rules. I think that in the years past, Oregon business has been a frontrunner in the nation in working with government in proposing cleanups. I think the biggest success story in the state of Oregon is probably the Willamette River. Oregon business proposed, before there were rules, before there were Federal mandates, to work with the Oregon Sanitory Authority, which was the precurser for the Oregon DEQ, to clean up the Willamette River - to make it swimable, to make it fishable. So Oregon business has been very sensitive and been a frontrunner in the nation in environmental concerns, as well as land use and alot of other issues.

My comments are going to be in three different areas. Number one is I think there hasn't been enough dialogue regarding the technical impacts of the proposed numeric standards.

Number two, I think that the rules have in them, by reference, some guidance documents that have not been addressed during the rulemaking process. I don't think that the public, the affected industry has had an ample opportunity to review and comment on those guidance documents. Under the Oregon Administrative Procedures Act any rule that affects a significant amount of business, whether it be a guidance, whether it be an opinion, whether it be a goal, is a rule and it has to be open to public notice and comment. It has to go through the formal rulemaking procedure before its valid. If any agency doesn't apply the rules under the APA, then they're asking for a judicial challenge. I think that's what the Department's asking for under these rules, because there are a couple of sections that the Department has just taken upon themselves, in a de facto basis, to utilize to apply to Oregon business without providing ample opportunity for review and comment.

The third portion also relates to the Administrative Procedures Act in that I don't think that the Department has provided an ample fiscal statement on the impact. The APA requires that a detailed analysis be made of the economic impact of any rule on Oregon business. I reviewed the staff report and to me it is very minimal at best and does not comply with what the APA envisioned. In the 1987 session of the Oregon Legislature, significant changes were made as to what the requirements were for state agencies when implementing or proposing rules. They made it much more imperative on agencies to make an analysis of what the fiscal impact is going to be. They also provided that small businesses, those businesses in Oregon that have 50 or fewer employees, are required to get special attention in that fiscal impact statement. There's got to be provision or consideration to exempt small business from the rules if public health and the environment and safety are protected. I don't see any of that. That bothers me.

So my three points that I would make, and I'm going to be submitting written comments, are 1) we haven't had sufficient time to review the information provided. There's been a significant dialogue for the last three or four years between the ECAC, the two groundwater advisory committees and none of the sides agree on what are the appropriate standards. They certainly don't agree that MCLs are a target. There's major disagreement about the utilization of a groundwater cleanup standard as the same as that as required for you to drink at the tap or for you to take a shower with. Especially for compounds that are volatile in nature, like the additives for gasoline, that once you turn on the tap, they're going to volatilize. Now when I sat on the groundwater advisory committee there were major concerns about using MCLs by the environmental special interest groups and the industry. Nobody was satisfied. Nobody could pick out. I think its premature to utilize those standards. We have an existing

program that utilizes those numeric standards as a guide. To take away from the technical consultants the ability to use their expertise and their discretion will make this process much more burdensome on Oregon business. Every site is unique, its different. Some are simple, some are complicated. You can't adopt a set of standards that applies to every site. You certainly can't adopt a high standard that the only way to get out of it is to do a much more expensive study, a risk assessment. A corrective action plan and a risk assessment are very expensive processes. If any of you have had to buy one, you know what I mean. There are consultants out there that have been involved in them. They are not cheap. There's a balance that has to be drawn here between protection of health and the environment and economic viability.

2) The adoption of these rules are premature because the notice and rulemaking proceddures have not been followed. You can't adopt guidance documents - and there are two of them that are referred to in this proposed rule package, by reference and they're not attached - the Department should put them out as part of the package if they want to apply them, beacuse there are going to be some major concerns about using the QA/QC, the monitoring requirements that are in those guidance documents. That is beyond the scope of the agency's rulemaking authority at this time and basically opens up the Department, I think, to a judicial challenge of these documents.

3) The Fiscal Impact Statement. To me the analysis of the impact on Oregon business, especially small business, needs to be greatly amplified. The cost, especially to small businesses, is going to be much increased by applying these uniform rules. The people who can least afford to hire a consultant to do extensive testing - they need to be balanced with a simple process that's protective of health and the environment.

2. Mike Hawkins, Hawk Oil Co., Medford, OR.

I guess I would just like to try and represent the Oregon Petroleum Marketers distributor group in saying that we worked very hard for a long time to work with DEQ and try and support them in many ways. You folks are aware of that. At this point it seems that we're trying to establish, as he referred to, probably the most difficult criteria in the country. As a group we ask that everything be slowed down - echoing what David said - give us all a chance to look at this more. Part of the problem is that Oregon's got the most difficult situation for tank owners. We're one of the few states without a tank fund for cleanup. If 1215 passes (SB 1215 - UST Financial Assistance) that doesn't solve that problem.

In fact, if 1215 passes it forces everything into a three year window, which is the most severe standards in the country. And I could go on with many other things. Oregon's just way behind the ball on assisting with these problems. And at the same time, we're sitting here trying to look at the most difficult groundwater standards in the country. It just doesn't fit. We need more time.

Hearing Officer: Larry Frost, DEQ

TESTIMONY:

Herb C. Wright
Fossil, Oregon

I do not see how the DEQ can be so set on cleanup rules where a service station has gone out of business and wants to remove the tanks. Everywhere I go I see these old sites with dozens of pipes going into the ground - as I understand aerating or removal of the very small or minuscule amount of fumes from contamination of soil - even if there is no possible contact or not even a chance of the soil coming in contact with groundwater that is used for public consumption or use. There is still being required these extreme cleanup costs. I still believe places such as Fossil or John Day or Monument need not be required to meet the same cleanup rules as the Willamette valley or Florida. But it appears that one set of rules applies to everyone and everything. For instance, in Fossil if my tank contaminates the soil it could not possibly affect our water supply since 90% of our water comes from 2.5 miles away on a hill 1,000 feet above us. The other 10% comes from a well used only during the high volume use and the well is about .75 miles away. In Condon, our neighbor, it sits right on top of the hill and the water is pumped out of a set of wells that are 10 to 12 miles from town. How could some small contamination affect the water we use for drinking? By using some good old fashioned common sense, we could save a lot of foolishly spent money on cleanups.

Again, I will say as I've said before, I think the planning department or the county court of each county could and should be brought into the decision making process. With their local knowledge and expertise, they could lend some local expertise to the decisions made. I am personally a little leery of a lot of the decisions and rules that come out of Washington, D.C. and Salem. A little down to earth consideration is very important to our small communities.

Hearing Officer: Larry Frost, DEQ

TESTIMONY:

Russell A. Harrington
Harrington Petroleum
1251 N.W. Park Street
Roseburg, Oregon

I just have a few comments to make, one involving the exclusion of aboveground tanks from the UST assistance program. I believe aboveground tanks should be included as an alternative for replacement to underground storage for several reasons. One obviously, insurance costs, cheaper construction and they are environmentally more sound and they may be able to save some smaller rural locations that really can't afford either the underground construction or the insurance payments that will go along with it.

I am also concerned about the increasing more stringent and complex regulations involving cleanup practices and testing that continue to drive up UST owner costs. I think anything that is done to continue to increase these costs is probably counter productive to the problem you are trying to solve. I think we are getting to the point now where UST owners are even reluctant to approach their problems because of the financial pressure they may come under as they get into the situation. I also think that we're now getting to the level of UST owners who are least able to withstand the pressure or the impact of the increasing costs. You are also probably getting to a point where you are going to find the most contamination problems because you are dealing with older locations and with less sophisticated operators.

Larry Frost: Let me ask a question. Your said that cleanup requirements are counter productive. Do you mean?

Russell Harrington: What I'm trying to say. When you increase the cost of cleanup you are making people more reluctant to get involved.

Larry Frost: OK, I understand. They are holding back. I understand.

Russell Harrington: So basically I just want to imply that anything that can .... that isn't absolutely necessary to accomplish their cleanup shouldn't be included in the regulations. Other than petroleum marketers are... this new set of test requirements has come on us rather suddenly and we really haven't had time to evaluate the impact or analyze anything. Even to the

point of being able to make any intelligent comment on them. We'd like to buy a little more time until we can do that.

Larry Frost: You are asking that the proposed rules for groundwater cleanup and soil cleanup comment times be extended.

Russell Harrington: That is correct. And basically that is it.

Larry Frost: OK, I'll pass on those last two comments to the people responsible for those rules and make sure they get into the record.

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No additional people arrived to testify. The hearing was closed at 4:45 pm.

Hearing Officer: Larry Frost, DEQ

TESTIMONY:

Fred Ehlers
Klamath Falls, Oregon

The proposed rules for BTEX and associated chemicals in groundwater are being promulgated as a maximum contamination level that is applicable to drinking water. There are aquifers in the state of Oregon that are not suitable for drinking. I think there should be some sort of a matrix, much as there is for soil, to determine the applicability of these standards to non-potable aquifers so that there are some chances where you have an opportunity to have a little bit of leeway with water. Otherwise, extremely stringent standards are really inapplicable without a matrix.

State of Oregon
Department of Environmental Quality **Memorandum**

Date: April 20, 1992

To: Environmental Quality Commission

From: Michael Fernandez, Hearings Officer

Subject: Report on the Public Hearing held in Eugene, Oregon on April 16, 1992 concerning the proposed revisions to the UST Cleanup Rules (OAR 340-122-205 to 340-122-360).

List of Witnesses

6 people attended the hearing.
5 people gave oral testimony
1 person submitted written testimony

The people testifying were:

- Bill Clingman, GEM Consulting, Eugene, Oregon
- Steve Newcomb, GEM Consulting, Eugene, Oregon
- Mike Armstrong, Vice President, Pacific Petroleum Eugene, Oregon
- Ron Bergeson, Bergeson, Boese and Associates, Eugene, Oregon
- Mark Younger, Younger Oil Company, Albany, Oregon

Comments from those testifying

1. **Bill Clingman, GEM Consulting, Eugene, Oregon**

The Economic Impact Statement (EIS) talks about the percentage of sites impacted. DEQ needs to make rest of data available. The EIS mentions 20%. It would be interesting to know what the other 80% are composed of, and exactly how you derived the EIS which seems to, in my opinion, minimize the true impact of the number of sites that may be required to do this kind of thing.

Secondly, the screening levels for TPH analysis in soil to determine whether or not a particular site is required to monitor for PAH's in groundwater raises another question. Section 242 establishes levels below which you don't have to monitor for PAH's. Section 340-122-340, which addresses wet pit samples in the Soil Matrix rules, was also modified but screening levels in Section 242 was not made a portion of them so when there is a wet pit and diesel or some other non-gasoline fraction has been released, all sites will have to sample groundwater in pit and sample for PAH's

among other things. Lack of screening capability in the Soil Matrix rules is a problem. For example, where a release has occurred, based on visual or olfactory evidence, samples are collected in accordance with wet pit rules. The groundwater is analyzed for BETX and PAH as required, and soil samples are analyzed for TPH and BETX as required. Groundwater sample results reveal it has no BETX, the soil samples reveal no BETX, but low levels of TPH and groundwater has measurable levels of PAH's. The next step is for the Department to decide how the investigation should proceed. A problem arises if the Department looks at the results and says you have PAH's in groundwater, therefore, you better put in some groundwater monitoring wells. Before putting in those groundwater monitoring wells, I would want to sit down and know what I am analyzing for so I can collect my data appropriately and collect my samples appropriately. The problem occurs when I look back at the groundwater investigation and cleanup section of 242 and discover that if those TPH levels in the soil were less than 100 ppm, I don't have to analyze those samples for PAH. And yet PAH was the only contaminant of concern that triggered the requirement to install the monitoring wells in the first place. Now it looks like the department may be requiring me to put in monitoring wells and sample for something the rules don't require me to sample for. That's a little bit confusing, Maybe that scenario would never arise, but if it never would arise it indicates that the screening levels are not appropriate. Those are the two areas of comment I have. Thank you.

2. Steve Newcomb, GEM Consulting, Eugene, Oregon

My comments on EDB and PAH position will be sent to Portland after this meeting.

Instead of focusing on other testing, I will focus on other concerns that may not have been addressed by other people. A lot of concern has been focused on the new testing requirements and I think people have overlooked the site closure requirements that are a part of these rules. The only reason I can see a site operator entering into site cleanup is to obtain a letter of no further action for his site. I believe when DEQ makes rules, they ought to make it very clear in the rules that when you reach compliance you can easily get your site closed. I want to go through the

compliance sections and point out some real problem areas that everyone in this room has probably had problems with.

Let's assume I am working on a site that has groundwater contamination. The rules say I can begin cleanup as soon as possible without approval of a corrective action plan (CAP), if that's necessary. The problem area is the review of the CAP by DEQ can take longer than the site cleanup. I have received a letter from DEQ after I was about to close the site indicating DEQ was not going to approve my CAP. At that point I'm in the uncomfortable position of having spent $30-40,000 of client's money and I have no basis for site closure due to a very slow review time at the DEQ. To me that's a major problem. We need to specify a time limit for review of these CAPs so we're not in a position of having spent a lot of money and then having DEQ coming back and requiring additional equipment and remediation. This makes us all look kind of silly. We're all trying to do the right thing, but we need help to do it.

In the new rules there are some interesting things. The compliance monitoring points are finally laid out. This is a big step I think. The rules describe what these are. The first step toward site closure is preliminary compliance. There is a catch all clause that speaks of installation of all Department "required" monitoring wells. I have worked on several sites and can think of no instances where I received a letter from DEQ indicating that I have installed the required number of monitoring wells. I never have received anything even close to that. So I have a problem in that I have not received a letter from DEQ indicating that I have installed the required number of monitoring wells. The first hurdle is proving I have the required number of monitoring wells. There is no mechanism to drive DEQ to give me such a statement.

Now let's say I get beyond this. I've done my good job and I'm working towards final compliance and I establish that I have 4 quarters of groundwater monitoring data below the cleanup guidelines and maybe that I have had my CAP approved at this point. There is a clause in here that really causes me concern. Every operator should underline this clause. Section 8(b) under final compliance, states that the Department may require continued monitoring where site specific

conditions warrant such measures. This is a massive loophole that needs to be closed. It should be set up so that when I achieve final compliance it's a checklist system and the Department can say yes, you did that, yes, you did that, etc. and close the site if all checklist items have been completed. I really don't want to be put in a position with a "notwithstanding" clause that says all these rules can be disregarded and I'm at the whim or mercy of a particular regulator in a particular region. That's something that I think no one in this room can live with. Compliance is not well tied down. It can be a checklist and should not take months or years to get a site closed. We should be able to get to a point where we can fill out a checklist showing that we're done, and get our closeout letter.

Finally, final compliance review needs a time line on it as well. Many of these sites have equipment that's worth $40-50,000 that an operator would like to move to another site as soon as he feels he has cleaned it up. Without the letter saying we've obtained final compliance, you cannot move that equipment. People are entitled to final closure letter so they can move their equipment as soon as possible.

3. Mike Armstrong, VP, Pacific Petroleum, Eugene, Oregon

I would agree with prior technical comments.

All marketers want to cleanup and do right thing. It's tough to do based on what's been said tonight.

A good working relationship with DEQ is aided with easy to understand rules.

Almost all western Oregon sites impact groundwater and as a result of these rules it will drive up cleanup costs.

What's real important, is that the number of monitoring wells, testing and sampling be established on a logical basis. What we are there for is to clean up the environment. However, on one site I am convinced that the contamination was there long before we owned the site.

I appreciate the hearing on these rules. Too bad

4. Ron Bergeson, Bergeson, Boese and Associates (Pacific Analytical Laboratory), Eugene, Oregon

I generally support the preliminary and final compliance sections.

I disagree with EDB and EDC as additional parameters and believe they should be omitted from the numeric groundwater standards. My rationale is based on the very low concentration of EDB and EDC in gasoline in percent by weight. As presented in appendix in the California LUFT Manual, the concentration of benzene in gasoline by percent weight is 0.12 to 3.5 . The concentration of total BETX percent by weight is 6.43. to 36.47. However, the concentration of EDB and EDC in percent by weight is 0.0007 to 0.02 and 0.02 to 0.03 respectively. In otherwords, EDB and EDC comprise less than 1/5 of .1% by percent weight or one to three orders of magnitude less than benzene or total BETX. This has led me to conclude that the chances of finding them are low except where BETX is high. Therefore, they are unwarranted. The LUFT task force thoroughly studied petroleum and concluded that they would only require testing for total petroleum hydrocarbons and volatile aeromatic hydrocarbons at UST sites. I recommend that DEQ review evidence used by the state of California to reach that conclusion.

The percentage of sites affected by rule in economic impact statement in my opinion is low. Regardless of accuracy, the estimate of the percentage of sites affected rests, in our opinion, on the value of what is perhaps superfluous data as weighed against the cost of doing this additional sampling and laboratory analysis. For these reasons, we recommend that the Department eliminate these parameters from the proposed amendments.

5. Mark Younger, Younger Petroleum, Albany, Oregon

I am helping my grandfather who retained a service station for retirement. He closed the service station as it became uneconomical to operate. He subsequently did testing before pulling the tanks. The tank tightness test was negative and the soil testing was negative, but when he pulled the tanks he discovered that he had a problem. The problem was from the tanks

previous to his ownership. My grandfather has taken an active stance in remediation and has installed monitoring wells. He could not afford insurance for the site, so all expenses are out of pocket costs. Current rules will exceed his ability to complete the cleanup according to his engineers. The additional costs make it prohibitive.

I can't speak technically, but from what their engineers are telling me the insurance costs are increasing dramatically. Just trying to stay ahead of requirements is getting more and more expensive. We want to maintain insurance, but need help. If the requirements are necessary, then they're necessary, but I haven't seen that from people I have talked to. On the other end, when is clean - clean? Working with DEQ I don't know when I will be done. Maybe a matrix that tells when to stop would be useful. It's scary not knowing when your going to be done based on the current rules.

eugene.hrg

April 16, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 S.W. Sixth Avenue
Portland, OR 97204

RE: UST CLEANUP RULE AMENDMENTS

Dear Mr. Kiphut,

The proposed amendments to the UST groundwater cleanup rules have been modified to include some soil screening criteria for the new proposed analyses. The screening criteria are of some use in eliminating sites with no groundwater impact, but the additional proposed analyses (EDB/EDC for gasoline sites, and PAHs for diesel sites) will provide the DEQ with very little additional information with which to evaluate sites. The testing for EDB/EDC is not mandated by most other states. The sites which have EDB/EDC problems will also have high BTEX concentrations in the groundwater and should already be conducting cleanups.

The testing for PAHs will yield unreliable information about the actual groundwater conditions at a site. The PAHs generally have a very low solubilities under laboratory conditions in distilled water and are often not present as dissolved product. The added expense of the PAH analysis is not providing any "better" information with which to evaluate sites than the existing TPH analysis. The TPH analysis is cheaper and should be used as a screen for groundwater. Enclosed is a data summary sheet for a site where TPH-D samples were run on groundwater in addition to the PAHs. This example indicates that a site with 17 ppm TPH-D in groundwater had no actionable PAHs. It seems logical that a regulatory threshold value can be established for TPH in water utilizing this and similar information.

The Fiscal and Economic Impact Statement for the proposed rule amendments contains little actual economic evaluation of the potential impacts of the proposed testing. Of greatest concern is the impact to small operators. The increased costs for the additional sampling will directly reduce the amount available to spend on cleanup. The data obtained will not enhance cleanup efforts or delineation efforts.

No data was presented to show the economic impact on state agencies. The number of tanks owned by the various state agencies is readily available, it can be assumed that many of these tanks are old and many will have leaks. The additional costs even if only a small per-cent of total costs will be significant. For instance, a certain public agency has over 800 tanks around the state. Less than 10% of these tanks meet new tank standards. Most

facilities have gas and diesel and perhaps 40% are located in areas where groundwater can be potentially effected by a release (or 288 tanks). In our experience more than half of the sites with tanks will require site characterization work (or 144 tanks). If the additional cost is only $200 per tank for PAH analysis (OAR 340-122-340 (4) (c), wet pit analyses) and $125 per tank for EDB/EDC the total cost will be $46,800 for only the first level of investigation. This is probably a best case scenario and only gets worse if monitoring wells and additional sampling is required. This example is for one of the many state agencies with tanks, similar calculations can be made for others.

The site closure criteria as outlined in the proposed rules are not definitive enough to allow site closure. The only reason most operators initiate site cleanup is to obtain a letter of closure. The compliance procedure has several regulatory hurdles to overcome and fails to specify a time frame for the regulatory review process. The first hurdle is the review of the CAP. In many instances this review takes 5 to 6 months as a minimum, and operators are encouraged to begin without waiting for review. If the review determines the plan is not acceptable the operator may have completed the cleanup and now has no basis for closure. The preliminary compliance is based on a regulatory determination that all required monitoring wells have been installed. This determination must be made by the agency at the time of the CAP review and before the site reaches preliminary compliance. A reasonable time frame must be established (60 days) for the review to avoid penalizing operators for initiating cleanups without review. Final compliance must similarly be granted within a reasonable time frame to allow operators to move or sell expensive site remediation equipment. The final compliance rules should not contain escape clauses for the regulators such as OAR 340-122-242(8)(b), which allows agency staff to decide when a site is clean, independent of all the rules. The closure criteria should allow quick efficient site closure based solely upon the rules, and with clearly established time frames for the Department, as well as for site owner/operators.

Respectfully Submitted,
GEM Consulting, Inc.

Steve Newcomb RPG

William W. Clingman RPG

TABLE 5.6

SUMMARY OF ANALYTICAL DATA
MONITORING WELL GROUNDWATER SAMPLES

Chemical Parameter	*Concentration (µg/L)*			
	OW-1	*OW-2*	*OW-3*	*OW-4*
TPHd	17,000	ND(500)	700	ND(500)
Naphthalene	ND(1)	ND(1)	ND(1)	ND(1)
Acenaphthylene	ND(5)	ND(5)	ND(5)	ND(5)
Acenaphthene	ND(1)	ND(1)	ND(1)	ND(1)
Fluorene	3.8	ND(1)	ND(1)	ND(1)
Phenanthrene	4.6	ND(1)	ND(1)	ND(1)
Anthracene	ND(1)	ND(1)	ND(1)	ND(1)
Fluoroanthene	ND(5)	ND(5)	ND(5)	ND(5)
Pyrene	ND(1)	ND(1)	ND(1)	ND(1)
Benzo(a)anthrancene	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Chrysene	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
Benzo(b)fluoranthene	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Benzo(k)fluoranthene	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Benzo(a)pyrene	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Dibenzo(a,h)anthracene	ND(0.3)	ND(0.3)	ND(0.3)	ND(0.3)
Benzo(g,h,i)perylene	ND(0.4)	ND(0.3)	ND(0.3)	ND(0.3)
Indeno(1,2,3-cd)pyrene	ND(0.4)	ND(0.4)	ND(0.4)	ND(0.4)

MEMORANDUM

TO: Environmental Quality Commission

FROM: Alan Kiphut, A.K. Hearings Officer

SUBJECT: Report on the Public Hearing held in Portland, Oregon on April 16, 1992 concerning the proposed revisions to the UST Cleanup Rules (OAR 340-122-205 to 340-122-360).

List of Witnesses

23 people attend the hearing.
14 gave oral testimony.
4 people submitted written testimony.

The people testifying were:
Chris Wohlers, ATEC Environmental Consultants
Richard Hanegan, Hanegan's Service
John Alto, Petroleum Retailers of Oregon
Harry Porter, Petroleum Retailers of Oregon
Rob Dixon, EMCON Northwest
George Alexander, Unocal Marketers Association
George D. Ward, George D. Ward & Associates
Neal Arntson, Albina Fuel Co.
Lila Leathers, Leathers Oil Co./OPMA
John Piccininni, Bonneville Power Administration
Stuart Hall, Carson Oil Co.
Susan Stein, Stein Oil Co.
Brian Boe, Oregon Petroleum Marketers Association
David Luke, O/C Tanks Corporation

Comments from those testifying

1. **Chris Wohlers, District Manager, ATEC Environmental Consultants, Portland, Oregon.**

The most basic point that I want to make is that we need to stop, slow down and go back over some issues. The primary question which has not been adequately addressed is whether or not there is even a need for additional PAH and additive sampling which is proposed in the regulatory package. I do not believe, at this point, that the Department has demonstrated a specific need for these analyses. We need good information and data from other states; we need to know what they are doing now and why they are doing it. Perhaps more importantly, we need to know the reasons why some states looked at these analyses and then backed off.

The field data included in the latest rule package was rather cursory data. We need to get quite a bit more information, particularly the field conditions associated with the ten sites included in the package. We also need a better grounding in the

theoretical side of the proposed additional sampling requirements. I think we need to know some relative concentrations of PAHs and additives in the various fuel products, and relate those relative concentrations to some estimation of what sort of solubility we're talking about. That will help us determine whether or not there's even a need to be doing this. My impression, based on the informal field data I've seen - and this comes from our own data base, other consultants, and also project managers within DEQ at the various field offices - is that there really isn't a PAH/additive problem. I think that informal opinion needs to be either confirmed or denied with real-life data. What we've seen from the Department's data is that if there is a PAH problem - and we don't know that yet - it may be specifically related to the most soluble PAH constituent, which is Naphthalene. If that is the case, there are some interesting correlations with Naphthlene and BTEX concentrations in diesel. We need to know more about the toxicity of Naphthlene and quite a few other issues.

I'm going to submit written comments and with those comments I'm going to submit a copy of a report prepared in 1987 which gives you some background data on relative PAH concentrations in diesel #2.

I would also like to mention that, working with the OPMA, we have a local lab, NET, that will be looking at the Oregon diesel standard and analyzing that for relative PAH concentration. This will certainly give us a little better theoretical feel for what we're proposing to do here. This is the sort of thing that the Department could be doing with their own inhouse lab - not only the theoretical side, but also going out to some sites and do some field testing, before coming out with blanket requirements.

Assuming that there is a PAH problem, there is also an issue in terms of setting criteria, in particular the TPH soil trigger levels that triggers a requirement for PAH analysis. I don't think that tank owners, interest parties and others have had a chance to review how those triggers were generated. I notice that the superfund soil matrix deliberations were rather lengthy; quite a bit of time was spent going over various approaches to come up with some soil numbers. Its a little disconcerting that the tank rules didn't have that same level of attention. I think we need to do that. Certainly, given the number of sites, the tank owners and operators in Oregon should have that opportunity.

This is beyond the scope of these regulations, but I feel very strongly that we need a groundwater classification system in the state; a system that will allow us to make some real-life calls on aquifers that are necessary, needed and worthy of protection and others that, either naturally or from long-standing pollution problems, are no longer potential potable water sources. That

would certainly make a lot of these deliberations more real-world and would give us a better decision making framework to work from.

Others following me will cover costs, but I will say that the Department has certainly improved, from the first round, the costs imposed on owners and operators, but there are still significant costs that these regulations will generate for owners and operators. It is absolutely critical that there is a need demonstrated before we do that.

In conclusion, we need to stop, examine the data and, in particular, the need for the additional requirements for PAHs and additives. As I've stated before, and I think the Department agreed, I would recommend that we put together a committee of interested parties from different sectors and work diligently on coming up with a rational approach to groundwater sampling and analysis and the whole corrective action process.

2. Richard J. Hanegan, Hanegan's Service, Tualatin, OR.

I have a small service station in Tualatin and want to thank you for holding this meeting and leading us along as we try to put in our new fuel storage tanks. I'll just read what I've written. **(For remainder of testimony, please see written comments).**

3. John Alto, President, Petroleum Retailers of Oregon.

Our Executive Director, Harry Porter, will speak in a few minutes. I would just like to reiterate what Rick (Richard Hanegan) said. We're all faced with costs and there's a service station going out of business every other day in Oregon. We would just like the rules to be reasonable, so that we can continue to maintain our position in the community.

4. Harry Porter, Executive Director, Petroleum Retailers of Oregon.

(Mr. Porter read his submitted written testimony).

5. Rob Dixon, EMCON Northwest, Tigard, Oregon.

I am an engineer and biochemist and working in hydrogeology as well. The original soil matrix was developed in the context of having a mechanism for addressing simple sites that would allow money to be directed into cleanup rather than attorneys and arguing. The overall concept of that was reasonably successful. The models of California and Washington were examined and evaluated carefully and pushed off a bit to avoid those extremes. Partly due to the success of this soil matrix for simple petroleum sites, the issue of a groundwater matrix began to be discussed

several years ago and it's my understanding that, to some degree, this set of rule changes being proposed here was to have that as one of its primary focuses.

A key element of the soil matrix was the distinguishing of different areas and different environmental threats at different types of sites - the issue referred to earlier in terms of the need for a groundwater classification system. It concerns me significantly that there is nothing in writing to look at distinguishing different aquifers and different levels of protection that are appropriate. It's my suggestion that in the soil matrix, in ranking a site, you take some type of characterization of aquifers. There's four different types and they're ranked between 1 and 10 points and that ranking is an appropriate measure to rank a site which helps you determine site-specific cleanup levels. I don't see that same categorizing of aquifers prevalent anywhere here. It seems that the existing rules, that already distinguish between four different types of aquifers, could be carried into this body of rules and a multiple of aquifers could be distinguished.

I personally know of a number of sites that have 100 ppb Benzene and hundreds of ppm of iron and everything else, and the majority of cleanup energy and money goes to cleaning up the naturally occurring contamination and those non-usable aquifers. Its almost become impossible to get the last bit of Benzene out of those aquifers, because of all the other stuff that's naturally there. This seems to be a disproportionate use of money and resources in trying to clean up a naturally "trashed" small body of water. The real benefit to society or the environment seems to be miniscule. Again, if we were to use the four categories of aquifers that are in the rules and develop four different tables which would have the cleanup levels. You would then know that if you met that cleanup level, you could get verification from the Department that you were done with the site. The soil matrix was developed to provide clear direction and minimize DEQ involvement on those sites. The soil matrix has been tremendously successful in doing this. To me, it's a shame that we aren't making that same kind of progress for simple petroleum groundwater sites, which is the intent of the whole issue.

We need some clarification regarding OAR 340-122-240(3). This is the paragraph that leads you into the new section (242). The definition of contamination beyond the tank pit that is provided in paragraph (1) is rather general. There's a lot of room between the real obvious, extensive contamination and detecting a few parts per billion, where many sites fall into, that's not clarified. If there isn't a clearer definition of contamination that kicks you into section 242, then a lot of relatively minor

UST releases will be forced into expensive rule ordering investigation.

Regarding sampling requirements. If we use SW-846, make clear what the requirements are and use the same technology so there is not confusion on number of trip blanks, etc. Further, I suggest that we specify what percentage has to be a trip blank, field blank, etc. As its written, one consultant may say you need 35% trip blanks, and someone else says you only need 5%. The owner could have someone do an inadequate job and have it kicked out by DEQ, and that person finds himself with a worthless bunch of work. We don't believe that just a general reference to SW-846 is adequate and that it needs to be spelled out so that there's a level playing field for all parties.

Related to that is the same issue regarding laboratory work. Its not clear from the rules what level of analytical work is being required. It could vary from tier 1 to tier 4. The Department should level the playing field by specifying what tier validation is appropriate for these sites.

6. George Alexander, Executive Director, Unocal Marketers Association, Newberg, Oregon.

About five years ago we bought an abandoned Standard Oil plant, thinking that we might be able to use the property. I paid some $65,000 dollars for the property and since that time its become less than worthless. I have removed all the facilities that were on the property, and I'm having the tanks removed, I've had the ground inspected, I've spent $5,000 putting a steel fence around it and I still haven't been able to get to the cleanup. I certainly hope to do that soon. I don't like to see the DEQ change the rules on these inspections periodically and without some full hearings by everybody.

I just say "amen" to everything that's been said so far. It's a terrible financial burden on the distributors, dealers and other people that are engaged in this business. I must say that the environmentalists are less than perfect. Many of them are new to the petroleum inspection racket. And it has been a racket because its been from here to here as far as quality is concerned. We've all heard the horror stories of that. I even understand today that some state has appropriated the LUST funds that the government allows them to the general fund. They're not delegating this money to the cleanup cause that we're all in favor of. We all want to be good citizens, but we need the governmental agencies to take a reasonable view of our efforts.

7. George D. Ward, George D. Ward & Associates, Portland, Oregon.

I'm here on behalf of a client, Dick Catherines, Terminal Transfer, Inc., who has 30,000 cubic yards of contaminated material, extremely difficult matrix cleanup requirements. He's moved around 13,000 cubic yards to another site. That experience has given us the chance to get pretty familiar with the rules, the good parts of them, the portions that are lacking, and perhaps some areas where I think we can offer some helpful ideas. That's why I'm here tonight.

When most of us went to school, whether it was 5 years or 50 years ago, these problems we're addressing were totally unknown. The state authorities knew nothing of them, the academic community knew nothing of them, and all of us have been faced with an onslaught of rules, rule revisions, federal changes, local changes, city changes, geological changes and financial changes. Today is not the time in this country's economy to force unwarranted burden on anybody. And I stress the word unwarranted. I have the highest respect for the DEQ people, who are tackling an ungodly task, and we must keep in mind that they have comply with Federal law. So if we offer anything that deviates from Federal law, we're wasting their time. I'd like to relate a couple of ideas that I think would help.

I'm speaking on behalf of Mr. Catherines. He spent over $600,000 and doesn't see light at the end of the tunnel yet. Its a very complicated and expensive process and we aren't done yet. I'd like to talk a little about hazardous waste. There are methods, called stabilization and fixation, in which you can take terribly complicated chemicals, solidify the soil - and there's a whole host of ways of doing it - and leave it right there. Its lawful, by EPA standards, to leave chemical contamination in certain approved sites, as long as they're solidified in an approved manner and can't leach. I think the rules ought to at least acknowledge that and give the land owner the option of using that approach. The way the rules are written, its not included.

Now to something more practical. I subscribe particularly to what Rob Dixon and others have said about the need to characterize aquifers. The rules are good, but if they could be broadened to where there was reason to put in the degree of treatment that you have to do at a given site, or if they could excavate all that soil and take it to a location that was acceptable or equivalent to a lower matrix, then the owner might have a viable option. I think that what we're lacking is a disposal site matrix, which would to some extent parallel the site evaluation matrix. I took my client today to the St. Johns Landfill. 250 acres of garbage, 100 feet deep with known PCB contamination. 50 years of

tremendous waste, and the aquifer is probably contaminated from here to Astoria. The landfill is currently undergoing a $30.4 million cleanup to DEQ standards. It will have the finest cover you could ever hope to have to keep water from entering it, and yet the matrix level that we would have to meet to put contaminated soil on the landfill is the same matrix level that was assigned to the site where it came from. There should be a reasonable rule which would allow petroleum contaminated soils to be picked up and carried lawfully to an offsite disposal facility, that met the conditions of the hypothetical disposal matrix.

8. **Neal Arntson, Albina Fuel Co., Portland, Oregon.**

I am president of Albina Fuel Co. and I am also uniquely qualified to speak here about the economics of this issue, in as much as in the last 18 months I have personally written authorizations for over $1 million worth of remediation within the state of Oregon. I am the chairman of the Oil Heat Commission, but I am not speaking for the Commission tonight, I am speaking as an individual.

I am more than slightly concerned about the economic impact of any further rule making beyond federal standards. We have a substantial system in place. We are concerned about the environment and we are also concerned about the welfare of the many jobbers/petroleum marketers in this state that are small independent businesses. Without a tremendously concise need being demonstrated, I am adamantly opposed to further regulation. I have to support Chris Wohlers' comments earlier and agree that we have to take a responsible and very slow, conservative approach to this thing.

A characterization of what I think we've gone through as an industry over the last 5 years is like we're trying to put a 1000 pound rider on a 200 pound horse. Our economy depends on people like me who are trying to generate jobs, supply energy to people who heat with it and transportation is moved by this whole thing. It's our "industrial Wheaties" that we're talking about. We need to take a very practical, pragmatic approach to this. Jumping ahead of federal standards is not in the best interests of anyone in the state of Oregon. I just don't know how to emphatically enough say that you need to stop and reconsider this issue.

9. **Lila Leathers, OPMA President/ Owner of Leathers Oil Co., Gresham, Oregon.**

(Lila Leathers read her submitted written testimony)

10. John Piccininni, BPA, Portland, Oregon.

We realize that the process is very complicated. The soil matrix rules we still find very complicated, but fair. The groundwater cleanup rules, again, we see as very complicated, particularly for some of our field people who have an open pit to deal with while they're going through the rest of the process. We do appreciate the clarity that DEQ has attempted to put into these rules since several months ago and we hope you continue to make it as clear as possible. Perhaps you could include a decision tree or some sort of flow chart for the more visual types who don't really want to read through all the small print when trying to explain this to others, particularly some of our people in the field.

Our hydrogeologist really appreciates some of the details, particularly as far as sampling requirements. Even though its complicated it does make it easier for us to budget for some of our cleanups. And we do have a number of them. BPA has about 400 substations, of which maybe 100+ are in Oregon, and we've removed a number of tanks and we have a number of cleanups going on. This does help us a bit, even though its a difficult process.

We would like you to make it clear, as others have said, when is the cleanup finished? There are occasions when you may have reached a certain cleanup level and if you come back sometime later, levels may have gone back above what the required cleanup level was. We wish you would make that a little bit clearer.

Also, we request clarification on what one should do if the plume goes off site, in other words, your compliance point is off site, or if there is a plume coming from off site onto our property. If the rules could direct us to the next stage of the rules - where else do we go?

One minor point - on page 8 of the rules, there's no (b). I don't know if there was supposed to be something there that was missed.

11. Stuart Hall, Carson Oil Co., Portland, Oregon.

Many marketers are behind the curve and struggling to keep up with the costs that are being imposed on us. We do bear partial responsibility for those costs. We have worked hard with the DEQ to bring ourselves up into compliance, yet there are many out there that are finding it difficult to do that. Adding increased costs, we fear, is going to increase a chance of almost a "grey" market of marketers out there - people who can't afford to quit, but can't afford to comply either. That's a losing situation for everyone. It is a loser for DEQ because it's a loser for the environment, it's a loser for those of us who comply because we have to put out the dollars to comply and yet we have competitors

who are not, and it's a loser for the "grey" person because in many cases those folks want to comply, they want to be good citizens, but they're just having trouble keeping up with the complexity of the rules and the cost of the rules. That's our major concern and we feel it's a negative for everyone. We would strongly endorse a go-slow approach on this and strong attention to what this is going to cost everyone, especially the small marketer.

12. Susan Stein, Stein Oil Co., Gladstone, Oregon.

I really appreciate the comments that I've heard here. There's some real serious thought that needs to go into what's been proposed. We believe that cleanup regulations are critical to keeping the Oregon environment clean. Stein Oil has been trying very hard to comply as a business with DEQ regulations and also remain in the petroleum business. My most important thought would be to go slowly and cautiously in implementing these proposed rules, because they could affect not only the petroleum marketers but the tax payers of this state, since there is not an EPA approved state cleanup fund in Oregon. If alot of us go out of business and we cannot pay for the burden of the cleanup, then all taxpayers might have to pay for these too stringent regulations to be implemented. We would really appreciate the opportunity for more review on this issue.

13. Brian Boe, OPMA Public Affairs, Portland, Oregon.

I just want to add briefly at the end of the public record, that I would really would like the record of this hearing to reflect and for the staff to give consideration and discussion internally, as it reaches this very crucial phase towards the end of the rules when they're going to be brought to the Commission, about the financial impacts. And to pay special attention to their consideration on these issues, because I think the testimony you've heard here tonight is particularly revealing.

There is an impact from these regulations that this particular community, this industry, is absorbing in attempts to be good corporate citizens and to clean up and address this problem, as one gentleman indicated, that we didn't know existed until 10-15 years ago. There wasn't a consciousness, an awareness about it. There is now and you've got an industry that's come to the plate, and they're shouldering a tremendous burden and they're trying to stay viable as businesses and continue to provide, as Neal Arntson stated, the very important public service of providing an infrastructure for dispensing fuel and distributing fuel in our state.

I just really wanted to emphasize that its our hope that the Department will really give serious consideration and look at the balance between the potential cost impacts and potential benefit that these added testing requirements and testing standards are going to achieve. And to weigh those. In this environment, with this economy that's just been teetering, and it looks like we may just be starting to climb out of a hole, to give full heed to Chris Wohlers' comments that perhaps now, given that equation, maybe this isn't the time to charge ahead but to take a look, to put this under review, to try to figure out a different way to get more data and look at these considerations, rather than just plunge ahead now and impose the burden in full force, as we feel the regulations would do if they're adopted as written now.

14. David Luke, O/C Tanks Corp., Tigard, Oregon.

I work for O/C Tanks Corporation, which is a wholly owned subsidiary of Owens Corning Corporation. We are the worlds largest manufacturer of underground petroleum storage tanks. I wanted to state here this evening general opposition to these new proposed cleanup rules, increasing the stringency of the cleanup operation of contamination in groundwater or soil. From the standpoint of the additional regulation on the underground storage tank owner, my concern would be that this group of business people is incurring a level of regulation and restriction on their business that is putting undue hardship on their backs. The marketplace is seeing a gradual shaking out of the business people that are affected by this kind of regulation.

My corporation's business in underground fuel tanks, while being driven heavily by regulation, is actually adversely affected by over-regulation which actually limits the marketplace opportunities for the independent petroleum marketer. In summary, without trying to comment specifically on a single piece of proposed regulation here, the groundwater cleanup regulations that are in place currently with the Oregon DEQ seem adequate and further, more restrictive regulation seems unnecessary.

April 16, 1992

Hanegan's Service
P.O. Box 215
Tualatin, Ore.
97062

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Division
811 S.W. 6th Avenue
Portland, Or. 97204

Re: Proposed amendments to UST cleanup rules

Gentlemen:

I appreciate the opportunity to comment on the proposed changes to the UST cleanup rules. My family has been at the same location in Tualatin as a service station since 1923. Two years ago I went to the expense of removing and installing my UST's that have been in place since 1952. There was considerable contamination from an open vent line and since then we have been working with D.E.Q. on cleaning up the site. You have been very understanding in the knowledge that we do not have much money and given us a considerable amount of time to react to the situation.

My concerns come from the expense that we are still incurring. Under the rules for ground water investigation is the part that has quarterly sampling of monitoring wells. My five wells sampled four times a year at $400 a sample will come to $8,000 a year. That plus the insurance costs and the rest of the environmental cleanup costs make it impractical to sell fuel for less than a forty cent a gallon gross profit.

I am not an engineer or a chemist so I cannot tell how some of the other test criteria will effect my business, but I do know that the environment has to be cleaned up. I only hope that I will be able to do it and still be able to earn a living.

Thank you for considering my letter and my opportunity to relate my story.

Respectfully,

Richard J. Hanegan
Hanegan's Service

G-53

Loco Leathers Oil Co. Technology Serving You

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 S.W. Sixth Avenue
Portland, OR 97204

15-APR-92

RE: Comments on Proposed Amendments to OAR 340-122-205 through 340-122-360

Interested Parties:

As current President of the Oregon Petroleum Marketers Association (OPMA), and a member of the regulated community, my input to the Department of Environmental Quality's (DEQ) proposed changes to the "Cleanup Rules for Leaking Petroleum UST Systems" is as follows:

1. The regulated community has not been provided sufficient time to review the technical merit and economic impact of the proposed revisions. While the DEQ overview supplied with the proposed rule changes minimize the perceived financial impact to the regulated community, it is the opinion of OPMA members that the additional costs may not achieve a commensurate increase in protection of the public health and environment.

2. The proposed regulations will further burden the regulated community at a time when no financial assistance from the State or Federal government is assured. Costs of cleanup under the current rules already threatens the economic viability of the independent gasoline marketers in Oregon; additional costs as proposed in the rule changes will result in additional service station closures (and a lack of supply in many communities).

3. The proposed rules require the testing of monitoring wells for compounds that are already indicated by the presence of BTEX components. The language in the rules (e.g., "Treatment of these compounds may not be necessary in a typical pump and treat operation since discharge permits do not require they be monitored. The mobility of inorganic lead compounds is such that cleanup may not even be necessary.") seems to be an unconscious admission that the additional rules are not necessary.

4. The information utilized by the DEQ to establish the PAH and gasoline additive "trigger levels" has not been revealed to the regulated community. On what basis do the proposed cleanup levels establish the "fine line" between public/environmental safety and economic justifiability? Are the proposed cleanup levels ultra-safe to provide a margin of error that further study could eliminate?

5. The increasingly stringent cleanup requirements imposed on the regulated community comes at a time when the EPA and other sources of study are indicating that the initial reaction to hydrocarbon contamination may have been an "overkill". Now is not the time to push on toward more exacting cleanup levels.

G-54

22300 S.E. Stark • Gresham, Oregon 97030-2654 • (503) 661-1244

6. No differentiation in cleanup levels is clearly established in the proposed rules to clarify when less stringent cleanup levels might be applicable. Although a general reference is made to this ambition, the rules will compel the typical DEQ regional cleanup staff person to interpret the rules in the "safest" means possible (to ensure that the staff person has done his/her "job").

7. The proposed rules do not clearly specify when a particular groundwater cleanup will be considered complete. While general statements to this effect are included, no clear standards are clearly established.

8. The rules lack a clear process that defines when a responsible party will be provided with a "notice of compliance" or similar acknowledgement from the DEQ that the cleanup is complete. Clear rules need to be established that define the DEQ's responsibilities in this area.

I appreciate the time and effort that DEQ staff have expended in their effort to make the rule changes as comprehensive and equitable as is practicable. Thank you for the opportunity to provide feedback to the Department regarding these proposed rules.

Sincerely,

Lila Leathers

Lila Leathers, CEO
Leathers Oil Company

PETROLEUM RETAILERS OF OREGON

4504 S. W. Corbett Avenue #110
Post Office Box #12409
Portland, Oregon 97212
TEL (503)274-4225
FAX (503)241-8039

April 16, 1992

Department of Environmental Quality
Evironmental Cleanup Division
UST Cleanup Section, 9 th. Floor
811 S. W. Sixth Avenue
Portland, Oregon 97204

Mesdames and Gentlemen:

My name is Harry Porter. I am the full time executive director of the Petroleum Retailers of Oregon. We are a newly formed trade association of retail petroleum dealers with as yet a limited membership; however, we hope soon to be speaking for some 200 retail outlets. Our charter was just confirmed last week. A list of our directors appears with my written comments.

We first wish to thank all of those at DEQ for their work in keeping Oregon a great place to live, and for this opportunity for public comment.

The balancing of public needs versus public cost is an ongoing effort and dilemma of all governmental activity and the case for LUST cleanup certainly fits this pattern.

We applaud the DEQ in its efforts to maintain reasonableness in its proposed standards further reminding it that the cost of not doing so is great.

The cost of contamination insurance premiums, the cost of lost competition from closed stations, the cost of unserved communities, the possible cost of supplier reticence to come to Oregon, the very cost of excessive cleanup,- all of these costs, ladies and gentlemen, must ultimately be born by the citizens of Oregon not just the owners and operators of service stations.

Our reason for appearing is to ask those who are promulgating these criteria under discussion to continue

their efforts at balance and to remember the ultimate cost to the whole state if balance is forgotten.

Oregon has a liter problem that is rarely discussed - our highways and streets are littered with the ruins and hulks of abandoned service stations, each a monument to lost competition, unserved neighborhoods, personal failure and bankruptcy.

This liter like the other we must attempt to hold to a minimum. We appreciate your efforts in doing just this, and would concur with the Director's policy that Oregon should certainly have no more onerous rules than required by the Federal ones unless there are some very compelling reasons to exceed these.

Sincerely,

PETROLEUM RETAILERS OF OREGON

Harry Porter
Executive Director

Unocal Marketers Association
P.O. Box 350
Newberg, OR 97132
Telephone (503) 538-2513

UNOCAL 76

April 16, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section 9th Floor
811 SW Sixth Ave
Portland, OR 97204

Greetings:

I wish to add my objections to your proposed amendments to the Underground Storage Tank Cleanup rules. I believe it is premature for you to impose additional requirements on Petroleum Marketers, and other members of the regulated community and our environmental consultants already overstressed trying to complete their present assignments. This state is still understaffed with qualified and reasonable environmentalists .

We do need a groundwater classification system, similar to our soil matrix program. It is preposterous to demand the excessive monitering and cleanup costs, on groundwater not used for human consumption. The State of Oregon need not be first to take this action and there has been too little time allowed to those individuals who are faced with time and financial constraints to give your proposal proper consideration.

We strongly recommend that your agency schedule meetings with members of the regulated community to review all of these matters. I'm certain there are many experts from major oil companies and environmental consultants who could assist your department in arriving at some reasonable solution.

Sincerely,

G. C. Alexander,
Executive Director

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Attachment H
Agenda Item D
6/1/92 EQC Meeting

DEPARTMENT RESPONSE TO TESTIMONY

Several key issues were identified and commented on by a number of interested persons. Those issues/comments and the Department's responses are consolidated below.

Note: It should be pointed out that the proposed new section of the amendments was changed from 340-122-255 to 340-122-242. Where mentioned, responses to comments use the new section designation.

COMMENT - The Department should withdraw the proposed amendments because they are unnecessary. Existing rules are adequate. (Neal Arntson, Albina Fuel Co.; Michael Moran, Bimor Stations; David Couch, Attorney; Walter Burt, et.al., Geo Engineers; William Vivian, Gull Industries; Robert Hays, R.W. Hays Co.; Don Wilson, National Cardlock, Inc.).

Response:

The Department began working on the proposed amendments almost two years ago because 1) there were concerns expressed by the regulated community, consultants and program staff that there were no clear goals when people started a leaking underground storage tank (LUST) cleanup - the nagging question of "How clean is clean?", and 2) evidence of PAH and additive problems began to surface at LUST sites.

The Department believes that the proposed amendments are necessary for two important reasons: 1) to make certain that groundwater cleanups occur in a way that is consistently protective of public health, safety and welfare and the environment, and 2) to delineate and clarify the requirements for groundwater cleanups at LUST sites. The Department has decided not to withdraw the proposed amendments.

COMMENT - The Department should postpone adoption of the proposed amendments until it demonstrates a need for the additional requirements. (Neal Arntson, Albina Fuel Co.; John Phimister, Astro; Chris Wohlers, ATEC Environmental Consultants; Brian Boe, Boe Associates/OPMA; George Bonbright, Bonbright Oil Co.; John Cahalan: Dunn, Carney, Allen, Higgins & Tongue; David Harris, Harris Oil Co.; Greg Jackson, Jackson Oil; Lila Leathers, Leathers Oil Co./OPMA; Lou Dobbins, Pioneer Energy Co.; Russ Korvola, Port of Portland).

This comment refers primarily to the additional requirements for additives (EDB/EDC) and Polynuclear Aromatic Hydrocarbons (PAHs). Several interested persons felt that the Department was moving forward without having adequately documented the threat from additives and PAHs at LUST sites. The Department sent additional background information on additives and PAHs to interested persons after the January, 1992 public hearings. This information is included in this report as part of Attachment F.

The Department believes that requirements are necessary for additives and PAHs because 1) they are a threat to public health and the environment as indicated by EPA's establishment of proposed Maximum Contamination Levels (MCLs) for several carcinogenic PAHs and additives, and the availability of toxicity data for several others; 2) technical studies and reports indicate the likelyhood of additives and PAHs at some LUST sites; 3) additives and PAHs have been found at some LUST sites in Oregon; and 4) a few other states have also established cleanup levels for additives and PAHs (although there is no consistency in terms of how and when those standards are enforced). The Department believes that these factors demonstrate a need for the additional requirements, and that it is necessary to sample for additives and PAHs in certain situations.

COMMENT - The Department should delay the proposed amendments because there has not been enough time for review. (Chris Wohlers, ATEC Environmental Consultants; Brian Boe, Boe Associates/OPMA; Sam Byrnes, Byrnes Oil Co.; Mike Davis, Carson Oil Co.; Ed Clough, Clough Oil Co.; David Couch, Attorney; Karmen Bresko, Estacada Oil Co.; Mike Hawkins, Hawk Oil Co.; Frederick Jubitz, Jubitz Truck Stop; Lila Leathers, Leathers Oil Co./OPMA; William Felker, Mt. Hood Oil Co.; Don Wilson, National Cardlock, Inc.; Russ Korvola, Port of Portland; Douglas Smith, RZA-AGRA; Neva Campbell: Schwabe, Williamson & Wyatt; R.L. Stein/Susan Stein, Stein Oil Co.; L.R. Swarthout; Bill Terpening, Medford Fuel; Fred Proby, Time Oil Co.; Mark Younger, Younger Oil Co.).

Response:

The Department, after several months of internal meetings on this issue in late 1990 and early 1991, brought the issue before the Environmental Cleanup Advisory Committee (ECAC) on March 26, 1991 and discussed our intent to develop groundwater cleanup standards and associated rule amendments. The proposed amendments were discussed at length over the next several months and a rule package put together for public hearings. Over 2,300 interested persons were notified in early December, 1991 of the upcoming hearings, which were held on January 15-23, 1992 in five locations throughout the state.

After those hearings, the Department did delay moving immediately forward with the rule package in order to prepare additional

background information, revise the proposed amendments, meet several times with the ECAC, and hold additional hearings on April 16, 1992. The Department believes that there has been enough time for a thorough review and that additional delays are unnecessary.

COMMENT - Costs for additional requirements (e.g. PAHs, additives) will substantially increase site cleanup costs. Costs have not been adequately represented in the Fiscal and Economic Impact Statement. (Neal Arntson, Albina Fuel Co.; John Phimister/Glenn Zirkle, Astro Western; Chris Wohlers, ATEC Environmental Consultants; Stuart Hall, Carson Oil Co.; Mel Knutzen, Chevron; David Couch, Attorney; Bill Clingman/Steve Newcomb, Gem Consulting; Richard Hanegan, Hanegan's Service; Russell A. Harrington, Harrington Petroleum; David Harris, Harris Oil Co.; Mike Hawkins, Hawk Oil Co.; Greg Jackson, Jackson Oil; Lila Leathers, Leathers Oil Co./Oregon Petroleum Marketers Association; Dennis Moreland, Moreland Oil Co.; William Felker, Mt. Hood Oil Co.; David Luke, O/C Tanks Corp.; Terri Heer, Oil Heat Commission; Brian Boe, OPMA; Al Elkins, Oregon Gasoline Dealers Association; Mike Armstrong, Pacific Petroleum Corp.; John Alto, Petroleum Retailers of Oregon; Harry Porter, PRO; Korvola, Port of Portland; Douglas Smith, RZA-AGRA; Neva Campbell: Schwabe, Williamson & Wyatt; R.L. Stein/S.L. Stein, Stein Oil Co.; L.R. Swarthout; George Alexander, Unocal Marketers; Mark Younger, Younger Oil Co.).

Response:

As indicated above, a significant number of interested persons from the regulated community expressed strong concern that the additional sampling and analysis requirements would increase investigation and cleanup costs dramatically. The Department realized that the first version of the proposed amendments which went out for public comment was not clear enough on when the additional requirements would be necessary. The current version of the proposed amendments has a new section [340-122-242(3) Contaminants of Concern] which clearly indicates when sampling and analysis would be required. This version was distributed to interested persons prior to the April 16, 1992 public hearings. While there will be some additional costs at some LUST sites, the Department believes that this and other revisions have substantially reduced potential additional costs to the regulated community without endangering public health, safety and welfare or the environment.

The Department has also incorporated the use of "indicator compounds" into the proposed amendments, which allows the regulated community to use less expensive analytical methods to determine if there is, in fact, a potential PAH or additive problem in the groundwater.

The Department also added language in a number of sections in order to clearly indicate that the requirements will usually be

formulated through the Corrective Action Plan process, which allows the responsible person and the Department to develop an approach suitable to site-specific conditions.

Concerns were also expressed that, while additional analytical costs were discussed, additional cleanup costs were not acknowledged and these would add substantially to the cleanup costs of sites. The Department believes that in most cases additional cleanup technologies, and thus additional cleanup costs, will not be necessary. For example, the additives EDB and EDC will most likely be removed with the standard technology (e.g. air stripping) being used to remediate the site.

Remediation of aquifers contaminated with PAHs may not require additional treatment technology beyond what is currently employed. Some PAHs, most notably naphthalene and the methyl naphthalenes, are succeptable to conventional air stripping technology. Those which cannot be readily stripped could be treated by granular activated carbon, if necessary. However, this would only be required if the treated groundwater is reinjected into the aquifer or if some additional level of cleanup is necessary before discharging the water into a sanitary sewer system or surface water.

There are currently limited existing standards for PAHs in relation to discharge permits. Decisions about discharge permits need to be made based on the potential impact of discharges on the receiving waters. They should not be based on groundwater cleanup levels. Even if the UST Cleanup Section did not set groundwater cleanup levels for PAHs, these compounds will still be present in discharges from petroleum cleanup treatment systems and Water Quality staff may still decide to set standards for them in their discharge permits. It is important to note that contaminant behavior in surface waters may be significantly different from their behavior in the groundwater. PAHs for example, readily degrade when exposed to sunlight as they would be in surface water. This would not occur in groundwater. BTEX compounds also more readily degrade and volatilize in surface waters. Therefore, surface water discharge permits may allow contaminant levels that differ from groundwater cleanup standards. UST Cleanup Program staff will be working with appropriate Water Quality staff to address this issue.

The Department believes that the Fiscal and Economic Impact Statement presents reasonable cost impacts in relation to the proposed amendments.

COMMENT - Cleanup standards for additives (EDB/EDC) are unnecessary. Why weren't other additives, such as MTBE, mentioned? (Randy Boese, Bergeson-Boese & Assoc.; Steve Newcomb, Gem Consulting; Walter Burt, et.al, Geo Engineers; Lila Leathers, Leathers Oil Co./OPMA; William Felker, Mt. Hood Oil Co.; S.L. Stein, Stein Oil Co.; Bill Terpening, Medford Fuel).

Response:

Some interested persons stated that cleanup standards for EDB and EDC were not necessary because these additives would probably be cleaned up along with the standard petroleum components. While this may be true, the Department believes that it is necessary to know whether or not these additives are contaminants of concern at particular leaded gasoline sites. This is consistent with existing UST Cleanup rules which ask for the "nature" of the release to be defined. Even if the standard cleanup technology employed at a site will clean up the additives along with the other petroleum components, the Department believes it is important to be able to clearly state that contaminants of concern at a site have been identified and then removed.

Another argument for not sampling for EDB and EDC was that the concentrations of these constituents in gasoline are very low (see written comments from Bergeson-Boese & Associates). The important thing to consider regarding EDB and EDC is not how much is present in gasoline, but whether the amount in gasoline is capable of contaminating groundwater at levels of concern.

For example, even though EDC is only present in leaded gasolines at levels of about 200 mg/L (approx. 260 ppm), its solubility in water is very high (8690 ppm; five times the solubility of benzene) and a certain fraction of it can easily dissolve in the groundwater. One parameter that can be used to estimate how a compound may distribute itself between an organic phase, like gasoline, and water is to use the octanol-water partition coefficient (K_{ow}). The K_{ow} for EDC is 30: this means that when the water and gasoline are mixed, there is likely to be 30 times more EDC in the gasoline than in the water. If the concentration of EDC in gasoline is initially 260 ppm, the final distribution will be 252 ppm in gasoline and 8 ppm in water. This is over 1000 times greater than the safe drinking water level for EDC. Therefore, at sites where there have been significant releases of leaded gasolines, EDC and EDB could be a problem.

At present there are no toxicity data available on MTBE. There is no question that MTBE is highly soluble and mobile, however, there is currently no information to indicate that it poses a health hazard or an environmental threat. Some states have chosen to regulate MTBE on the basis of taste and odor considerations only. The Department has decided not to regulate MTBE or other additives until toxicity data become available.

COMMENT - Sampling/Analytical requirements for PAHs. (Glenn Zirkle, Astro; Chris Wohlers, ATEC Environmental Consultants; John Cahalan: Dunn, Carney, Allen, Higgins & Tongue; Steve Newcomb, Gem Consulting; Walter Burt, et.al., Geo Engineers; David Harris, Harris Oil Co.; Mike Hawkins, Hawk Oil Co.; Lila Leathers, Leathers Oil Co./OPMA; Terri Heer, Oil Heat Commission;

Al Elkins, Oregon Gasoline Dealers Association; Douglas Smith, RZA-AGRA; Neva Campbell: Schwabe, Williamson & Wyatt; Mike Fitz, Starr Oil Co.; Dale Andert, Texaco Refining and Marketing; Fred Proby, Time Oil Co.).

Response:

The requirements for PAHs surfaced a number of comments. The primary concern was that PAH sampling is relatively expensive (approximately $200 for a sample which analyzes for all the carcinogenic and non-carcinogenic PAHs) and questions were raised as to whether or not the environmental benefits warranted the additional costs. In response to comments from the January, 1992 public comment period, the Department prepared additional PAH background information, including information from several sites, discussing why the Department believes it is necessary to sample for PAHs at some sites. This information is included in this report as part of Attachment F.

The Department agreed that the first version of the proposed amendments was unclear and could see how some people interpreted the amendments as indicating that there would need to be sampling for PAHs at all diesel releases. The Department agreed that PAHs are not found at all sites and the proposed amendments were changed [by adding 340-122-242(3) - Contaminants of Concern] to clearly delineate the situations when PAHs would need to be addressed. The Department did not agree with the comment that PAHs will only be found at sites where free product is found floating on the groundwater, since we have sites where there is no free product and PAHs are still present.

The Department also agreed that sampling for Total Petroleum Hydrocarbons (TPH) is a useful approach as an indicator compound in some situations. General language allowing for the use of indicator compounds was inserted in 340-122-242(3). The Department also added language to 340-122-242(3)(B) which allows TPH to be used as an initial screen when sampling water for PAHs. These changes allow the regulated community to use a less expensive approach to initially determine if there is a potential PAH problem.

Questions were also raised about what other states were doing in this area. The Department had looked into this earlier, and our investigation of this issue showed that states are actively evaluating available information on PAH's and additives, and although currently only a few do have standards, more states will be establishing them in the future. A state-by-state summary of cleanup standards published in a technical magazine in late 1991 indicates that a number of states currently regulate PAH's and additives. Some have established standards and others look for the constituents on a site specific basis. Oregon's proposed rules appear to be unique from others in that they establish when to look for these constituents.

A concern was also raised (see written comments from ATEC Environmental Consultants) that three of the target PAHs had solubilities close to or below the proposed cleanup standards. While it is true that the solubilities for Anthracene, Fluoranthene and Pyrene are close to or below the proposed cleanup standards, the listed solubilities are only for PAHs in pure water. This is, unfortunately, rarely the case in environmental settings. Also, compounds like PAHs can be present in water in a form that is not technically considered to be dissolved. The PAHs can sorb onto very fine colloidal particles and be present at concentrations that exceed their pure solubility. These very fine particles are not readily filtered out and do not quickly settle out of the water. Therefore, they can easily move through the groundwater and carry contaminants to nearby wells. Furthermore, since PAH tests will always give results for all compounds that the test is set up to look for, there is no additional cost to test for those PAHs that may have pure solubilities below the cleanup standards. Because they could be present at higher levels, the Department feels that it is reasonable to include these compounds on its list of contaminants of concern.

Some questions were raised about why the Department is requiring these stringent cleanup levels for PAHs when they are commonly found in food we eat and may appear in groundwater in "background" quantities. It is true that some levels of PAHs are present in coffee, barbecued foods and other food items. These items are not under the Department's jurisdiction, and people have choices about what they eat and drink. The Department has the mandate and the authority to protect Oregon's air, water and land and these proposed amendments are necessary to meet those objectives.

In some site situations, there may be background levels of PAHs already present at the site (e.g. roadbed and asphalt leachate, runoff containing oil and grease, etc.) unrelated to the tank release. This is an area where the professional judgment of the Department staff, based on information know about the site, will need to be used to determine the source of the PAHs. The fact that there may be some background PAH levels at some sites does not mean we shouldn't have PAH cleanup standards.

COMMENT - Cleanup levels for PAHs should be set at an achievable (e.g. MCL) level. (Alan Steiger, adec; Mel Knutson, Chevron; Walter Burt, et.al., Geo Engineers; Jean Cameron, OEC [against]; Terri Heer, Oil Heat Commission; Neva Campbell: Schwabe, Williamson & Wyatt; Dale Andert, Texaco).

Response:

The first version of the proposed amendments which went out to public hearing listed a cleanup level of .003 parts per billion (ppb) for the carcinogenic PAHs. This number is a health-based

number which would insure that no more than one person in one million (10EE-6) would get cancer from that level of contamination. When this number was put in the table in 340-122-242(4), an asterisk was inserted with a note stating that since this number could not be measured at this time, the currently published Practical Quantification Level (PQL) would serve as the cleanup standard (note: for carcinogenic PAHs, the PQL and MCL are the same). Many members of the regulated community and other interested persons found this approach confusing. Most people found it much clearer to have the actual cleanup standard stated in the table.

The Department agreed with this comment and changed the numbers to the PQL/MCL levels established by EPA. Some members of the Environmental Cleanup Advisory Committee (ECAC), however, disagreed with this approach and wanted to see the health-based value in the table. This issue of whether or not to use health based numbers as cleanup standards has been discussed at length by the ECAC over the past year and a half. Some members of the committee want to see the Department use health-based numbers as cleanup standards whenever possible. Given that, in this particular case, the health-based number cannot be detected by current technology, the ECAC is willing, and voted, to support the PQL/MCL number in the table as long as the Department returns to the committee periodically to report on technological improvements which might warrant adjusting the published cleanup standard. The Department supports this approach and has raised the issue in the body of the Staff Report. The chair of the ECAC has also sent a letter to the chair of the Environmental Quality Commission (see Attachment F) asking the EQC to direct the Department to return to the ECAC within a specified timeframe to address this issue.

COMMENT - The Department should not go beyond Federal standards in these proposed amendments. (Neal Arntson, Albina Fuel Co.; Ed Clough, Clough Oil Co.; Walter Burt, et.al., Geo Engineers; Mike Hawkins, Hawk Oil Co.; Al Elkins, Oregon Gasoline Dealers Association).

Response:

The Department has not gone beyond Federal standards in these proposed amendments. The Department has used EPA standards, in most cases, as the basis for the cleanup levels in 340-122-242(4). For some contaminants of concern, the EPA methodology was used to determine the health based value.

COMMENT - The Department has not adequately explained or justified the "trigger levels" described in 340-122-242(3). (Chris Wohlers, ATEC Environmental Consultants; David Harris, Harris Oil Co.; Lila Leathers, Leathers Oil Co./OPMA).

Response:

As mentioned earlier, in attempting to more clearly define when contaminants of concern should be sampled for, the Department added section 340-122-242(3) - Contaminants of Concern to the proposed amendments. In that section, TPH levels at the soil/groundwater interface are cited as "trigger levels" which require sampling for PAHs and/or additives. These trigger levels are based on existing soil cleanup standards for Level 1 LUST sites, as indicated in 340-122-335 of the existing rules. The Department's decision was based on the logic that if we expect soils to be cleaned up to those standards in order to avoid contamination getting into the groundwater, we will certainly be concerned enough to ask for a sample if those levels of contamination are found at the soil/groundwater interface. Additional calculations were made to make sure we had some statistical basis for that decision.

A general one page document discussing the trigger levels was sent to all interested parties before the April 16, 1992 hearings and the more detailed document on trigger levels found in Attachment F was sent to all ECAC members prior to the April 28, 1992 meeting.

COMMENT - In sampling for lead, the Department needs to clarify if the sampling is for total or dissolved lead, and whether the sample should be filtered or unfiltered. (Randy Boese, Bergeson-Boese & Assoc.; Steve Newcomb, Gem Consulting; Walter Burt, et.al., Geo Engineers; Mike Hawkins, Hawk Oil Co.; William Felker, Mt. Hood Oil Co.; Lou Dobbins, Pioneer Energy Co.).

Response:

The Department changed 340-122-242(3)(a)(D) to clearly ask for analysis of dissolved lead and a filtered sample using a 0.45 micron filter.

COMMENT - The Department needs to establish a groundwater classification system, so unusable groundwater aquifers don't have to be cleaned up to these standards. (Chris Wohlers, ATEC Environmental Consultants; Mel Knutson, Chevron; Fred Ehlers; Rob Dixon, EMCON Northwest; Steve Newcomb, Gem Consulting; Mike Hawkins, Hawk Oil Co.; Greg Jackson, Jackson Oil; Dennis Moreland, Moreland Oil Co.; Terri Heer, Oil Heat Commission; Mike Armstrong, Pacific Petroleum Corp.; Mike Fitz, Starr Oil Co.; Fred Proby, Time Oil Co.; George D. Ward, George D. Ward & Associates; Herb C. Wright).

Response:

Several comments focused on the fact that these proposed amendments will apply to all groundwater aquifers, regardless of whether or not the groundwater is, or ever will be, used for a beneficial purpose, and that the Department should develop a

groundwater classification system which would allow less stringent cleanup levels for unusable aquifers.

The Department's mandate is to protect current and future beneficial uses of all groundwater. What may appear to be unusable today, may be usable or needed in the future. The Department (Water Quality Division) formed a Groundwater Rules Committee in 1987 to begin to address this issue, but could not develop an approach which was favorably received by industry, environmental groups and Department staff and the committee was disbanded. The development of a groundwater classification system is beyond the scope of these proposed rule amendments, but the issue does deserve further consideration.

COMMENT - EPA and other sources of study are indicating that the initial reaction to hydrocarbon contamination may have been an "overkill". Concerned about over-regulation. (Glenn Zirkle, Astro Western; Diane Craig, Craig Oil Co.; John Cahalan: Dunn, Carney, Allen, Higgins & Tongue; Neil Baker: Elliott, Powell, Baden & Baker, Inc.; Mike Hawkins, Hawk Oil Co.; Lila Leathers, Leathers Oil Co./OPMA; William Felker, Mt. Hood Oil Co.; David Luke, O/C Tanks Corp.; Glen W. White).

Response:

The Department has had no communication from EPA that indicates that the programatic effort to cleanup up tank sites has been an over reaction to the problem. The only information related to this comment was an article from the April, 1992 issue of U.S. Oil Week, entitled "Study shows tank regs overkill small problem". The Department has reviewed the article and agrees that petroleum contains substances that are unhealthy, including benzene, a known carcinogen. Generally speaking, we also agree that a multitude of factors may naturally reduce the concentration of benzene in groundwater over time. The article relies heavily on one state's water well monitoring data to support its conclusion that regulatory levels for benzene established by states is overkill. A major assumption made in the article is that if benzene is not found in the domestic water well now, it never will be. It also focuses on current use, not potential future use of the entire aquifer in the study areas. Actual monitoring well data closest to known petroleum releases in the study areas is not addressed in the article. Our data indicates that off-site concentrations of benzene nearest the source, particularly from gasoline releases, frequently exceed health based benzene standards regardless of whether or not the aquifer is used for drinking water.

COMMENT - Contractors doing work on LUST sites should be certified professionals/geologists. (Tom Ferrero, Ferrero Geologic; Plato Doundoulakis, Neilson Research Corporation; Jack Arendt, Technical Action Group).

Response:

The DEQ established a certification program for licensing service providers and supervisors for UST tank removals which deal with simple soil cleanups. The certification program is designed to assure that the practitioners of tank removals are knowledgeable of tank and safety rules and conduct the removals in a safe manner. The cleanup certification program allows for dealing with minor soil contamination associated with the removed UST system. When the UST system release is determined to be more complex then a simple soil cleanup, a consultant is typically hired. Consultant's are required to offer their services to the public under the registration of either registered geologists or registered engineers which are licensed by the Board of Examiners in Salem.

The Department's review of work being done to date in this area indicates that qualified professionals are present in firms conducting LUST investigations and cleanups. The Department sees no reason to reiterate general state requirements in these rules.

COMMENT - It is not clear when groundwater monitoring wells are required to be installed. (Alan Steiger, adec; Rob Dixon, EMCON Northwest; Terri Heer, Oil Heat Commission; Mike Armstrong, Pacific Petroleum).

Response:

The Department rewrote 340-122-240(3) in order to more clearly state when a site would be brought into the new section of the rules (340-122-242) and monitoring wells would be required.

COMMENT - Quarterly sampling is not necessary in all cases and should not be required from all monitoring wells. (Chris Wohlers, ATEC Environmental Consultants; John Cahalan: Dunn, Carney, Allen, Higgins & Tongue; Walter Burt, et.al., Geo Engineers; David Harris, Harris Oil Co.; Terri Heer, Oil Heat Commission).

Response:

While the Department acknowledges that quarterly sampling may not be necessary in every situation, we believe it should be the benchmark from which we start and deviations from that will be worked out on a site-by-site basis. The Department did include language in 340-122-242(2)(b) which allows for site specific conditions to be considered.

The Department agrees that sampling from all wells for all contaminants may not be necessary and has included language in 340-122-242(3)(b) to allow site-specific flexibility.

COMMENT - Stipulate or allow for different analytical methods. (Terri Heer, Oil Heat Commission; Howard Boorse, Pacific Environmental Laboratory).

Response:

For consistency, the Department has referenced the set of EPA analytical methods that were specifically developed for testing samples from sites contaminated with hazardous materials (SW-846). Other EPA methods are more appropriate for testing drinking water or wastewater discharges. The SW-846 methods are readily available and cover all of the analytes required by these rules. Therefore, there should be no need for alternative sets of methods. However, if the need should arise, the proposed rules, in 340-122-242(5)(f) allow the department to approve alternative methods.

COMMENT - Given the unique nature of each site, more room for professional judgment/discretion is needed. (Michael Moran, Bimor Stations; David Couch, Attorney; Tom Ferrero, Ferrero Geologic; Robert Hays, R.W. Hays Co.; Dennis Moreland, Moreland Oil Co.; Russ Korvola, Port of Portland; Neva Campbell: Schwabe, Williamson & Wyatt; Jack Arendt, Technical Action Group).

Response:

The Department agrees that each site has some unique aspects. Sites also have many similarities and there is a need to insure that each site is cleaned up to a protective level. The establishment of numeric cleanup standards helps define the objective we are trying to reach. The additional rule amendments provide a general framework for reaching that objective and the flexibility necessary to allow for professional judgment on a site-by-site basis.

COMMENT - The additional requirements will cause insurance costs to rise at these facilities. (Neil Baker: Elliott, Powell, Baden & Baker, Inc.; Dennis Moreland, Moreland Oil Co.; Mark Younger, Younger Petroleum).

Response:

The UST Compliance Program has spent a great deal of time talking to insurance companies to determine what their concerns are and what factors will bring more insurance options into Oregon. Most insurance companies will only provide insurance after a site has been cleaned up, so the additional requirements will serve to indicate that a site is, in fact, cleaned up and should not have a negative impact on insurance rates at these facilities.

COMMENT - Oregon is one of 14 states without a state fund to assist owners with site cleanups. (Sam Byrnes, Byrnes Oil Co.; Mike Hawkins, Hawk Oil Co.; Lila Leathers, Leathers Oil Co./OPMA; Susan Stein, Stein Oil Co.).

Response:

The Department recognizes that upgrading old systems and cleaning up contaminated property can be expensive and that the regulated community needs financial assistance. The Department has supported the development and implementation of Senate Bill 1215, which would help rectify this problem, and is anxiously waiting for the court decision, so that this financial assistance program can be implemented.

COMMENT - Additional guidance is needed for some portions of these proposed amendments. (Alan Steiger, adec; John Piccininni, BPA; Rob Dixon, EMCON Northwest; Bill Clingman/Steve Newcomb, Gem Consulting; Walter Burt, et.al., Geo Engineers; David Harris, Harris Oil Co.; Mike Hawkins, Hawk Oil Co.; Lila Leathers, Leathers Oil Co./OPMA; Dennis Moreland, Moreland Oil Co.; Terri Heer, Oil Heat Commission; Neva Campbell: Schwabe, Williamson & Wyatt; Fred Proby, Time Oil Co.; George D. Ward, George D. Ward & Associates).

Response:

The Department agrees that additional guidance is necessary. This need was identified and met when the UST Cleanup soil matrix rules were developed and is obviously a necessity with these proposed amendments. The Department has identified key areas needing guidance and will proceed on their development upon rule adoption. To allow staff time for development of some of the guidance documents and to foster a smooth implementation of these rules, the Department is proposing an effective date of October 1, 1992.

COMMENT - Specific corrective action approaches should be identified in the rules. (George D. Ward, George D. Ward & Associates).

Response:

The existing rules and the proposed amendments intentionally do not mention specific types of corrective action options in order to allow for flexibility at each site. While there are some common corrective action approaches which seem to be typically used, the Department is always willing to look at new, innovative approaches.

COMMENT - The Department cannot adopt guidance documents by reference in the proposed rule amendments. (David Couch, Attorney).

Response:

This comment was made in reference to three specific guidance citations in the first version of the proposed rules. While the Attorney General's Office supports the Department's approach, some changes were made in the guidance references. These changes are discussed below.

First, the Department removed the reference to groundwater monitoring well guidance [340-122-242(1)] and replaced it with a note referring to the Water Resources Department's administrative rules. This change was made because the Department's guidelines are still in draft form and the Water Resources Department's rules are adopted and in place.

Second, the Department did not change the reference to using EPA's Test Methods for Evaluating Solid Waste - SW-846 - as required in the sampling section [340-122-242(2)(a)]. This is a standard sampling reference document and has been a requirement in the existing rules since 1989.

Third, the Department changed the reference about using the Department's "Quality Assurance Project Plan Guidelines" [340-122-242(2)] from a requirement to a reference note. This was due to some confusion on the date of the document and that it may need some review and revision.

OTHER COMMENTS - Housekeeping changes and minor wording changes. (Alan Steiger, adec; Glenn Zirkle, Astro Western; John Piccininni, BPA; Mel Knutzen, Chevron; Bill Clingman/Steve Newcomb, Gem Consulting; David Harris, Harris Oil Co.; Mike Hawkins, Hawk Oil Co.; Kim Hughes, Hughes Analytical Laboratory; Lila Leathers, Leathers Oil Co./OPMA; Terri Heer, Oil Heat Commission).

Response:

There were several suggestions of minor wording changes and housekeeping changes (e.g. using "Department" throughout the rules, Department discretion at sites, clarification on site closure, making the existing tank pit sampling requirements compatible with the new section, etc.). The Department has incorporated most of those suggested and tried to respond above to those which were not included.

Attachment I
Agenda Item
6/1/92 EQC Meeting

WRITTEN COMMENTS

This attachment contains all written comments received by the Department during the January, 1992 and April, 1992 public comment periods, except those actually received at the public hearings. Comments received at the public hearings have been included with the Hearings Officer Reports in Attachment G.

INDEX TO WRITTEN COMMENTS

January, 1992

January 22, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, Oregon 97204

Re: UST Cleanup Ground Water Rule Amendments

Dear Sir or Madam:

Please consider the following comments regarding proposed rule amendments:

1. 340-122-240 (1)(c)

   While there may not be any intended impact on existing practices by changing the word "*and*" to "*or*," it certainly emphasizes the fact that there are no defined criteria for the director to request an investigation. It would be possible under this provision for the director to abuse the power granted. A more appropriate provision might be to require reasonable cause to suspect contaminated soil or ground water.

2. 340-122-250

   There is an inconsistency in language between the old sections and the new sections where the old sections refer primarily to the director and the new sections refer to the department. It would seem to be appropriate that the director have the accountability and responsibility for making final determinations, subject to certain safeguards such as mentioned above.

3. 340-122-255 (1)(a)

   This section indicates "additional monitoring wells may be required to adequately characterize the site," without any indication of the criteria or how the determination will be made. As this could significantly impact the cost, it is recommended that such criteria and determination be included in the proposed amendments.

4. 340-122-255

   Again, the inserted language refers to the department rather than the director, and the inconsistency should be resolved.

I-3

2601 CRESTVIEW DRIVE, NEWBERG, OR 97132-9257 • POST OFFICE BOX 111, NEWBERG, OR 97132-0111
TELEPHONE 503/538-9471 • TELEX 4970448 • FAX 503/538-5911

5. 340-122-255 (5)(a)*

   I do not understand the logic in requiring cleanup levels that are below practical quantification levels. If it cannot currently be measured accurately, there is no evidence to determine whether or not they may occur naturally in those levels. Insertion of such standards raises questions as to the credibility of the cleanup process and rules, and currently published practical quantification levels referred to should be used as the standard.

6. 340-122-255 (7)(c)

   A potential concern as to continued treatment is that there are no provisions to establish the source of the contaminant. While unlikely, it would be possible for one location to be contaminated from another location, and the treatment may not be taking care of the source of the problem. I would propose that some modifying language be added for such eventuality.

7. 340-122-255 (8)(b)

   The conditions under which required continued treatment or monitoring may be warranted should be more specific.

If you have any questions in regard to any of these comments, please give me a call at 538-9471.

Respectfully submitted,

Alan L. Steiger

Alan L. Steiger
Director of Finance

ALS/gw

January 17, 1992

Dept. of Environmental Quality
Environmental Cleanup Division
811 S. W. 6th Avenue
Portland, OR 97204

To The Advisory Committee:

It is obvious a lot of time and effort has been put toward the latest proposed cleanup rules. Though my perspective cannot address the technical aspects of these proposed rules, my observations are that this proposal has been drafted without enough background research and that , in fact, the 5 referenced states are not a broad enough sample to draw the conclusions and enact these proposed rules for tighter cleanup standards.

It is commendable that the proposed rules do not contemplate additional staff or expense on the part of DEQ. This is sadly not the case for the regulated industry which is given the unrealistic example of needing three monitoring wells at a cleanup site costing up to $250,000. A more realistic number of monitoring wells would be 6 - 10 with their accompanying three years of quarterly monitoring.

Oregon is one of 14 states with no cleanup fund assistance to help the regulated industry. The burden of these cleanup standards has not been shown to benefit the environment adequately for the amount of expense they will require from the regulated industry. The data from five states who are in the preliminary stage of setting up their PAH testing methods cannot be a valid reference source.

Attachment E, referring to the land evaluation statement, states in paragraph 2c that "environmental cleanup activities are neither specifically referenced in statewide planning goals nor are they reasonably expected to have significant effects on resources of present or future land uses". This statement is directly contradictory to page A-7, paragraph 9, where deed restrictions and other encumbrances are proposed.

I-5

Astro Western Companies
Western Stations Co.
Western Hyway Co.
Astro Management Co.
P.O. Box 5969 • 1466 N.W. Front Ave. • Portland, Oregon 97228-5969 • (503) 243-7899 • Fax (503) 243-7874

Page F-2 states "The draft rules will not require PAH sampling at every site where groundwater is encountered. PAH samples are required at sites where diesel or heavier petroleum fractions are found or suspected". This is also a direct contradiction to page A-5 where it specifically addresses testing requirements where gasoline contamination is present. These draft rules are proving to be hastily crafted without analytical verification or adequate background research.

The Wall Street Journal, on Wednesday, January 15, 1992, page B1, highlights the plight of the poor in many cities throughout the U.S. who are suffering dire financial adversity due to the increased cost passed through from the regulated industry, which is complying with excessive standards mandated by the federal clean water laws. The environmental movement has proven to have a disdain for any recognition of cost attached to the extremist rules it proposed to enact on the regulated industry. People are questioning the value of "environmental projects" which push the poor over the abyss financially.

This fact was realized by the South Coast Air Quality Management District when it announced November 7, 1991, that it was easing back on its rules after 3,000 businesses were counted to have left the state due to the overzealous rules.

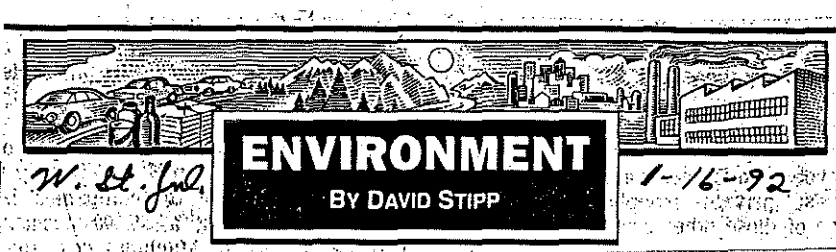
We recommend a delay in these proposed rules until such time as verifiable cost-benefits results have been ascertained.

Very truly yours,

Glenn Zirkle

Glenn Zirkle
Vice President

GZ:no



W. St. Jnl. 1-16-92

Poor Pay a Big Price To Drink Clean Water

THE COSTS of clean water are making it a scarcely affordable luxury for the poor in some U.S. cities.

Water bills are skyrocketing in New York, Los Angeles and other cities as the costs of complying with federal clean-water laws are passed along to customers. The costs hit low-income people especially hard. Water bills represent a relatively large portion of their income, and the poor often live in apartments with leaky plumbing over which they have no control, notes the National Consumer Law Center, a nonprofit Boston advocacy group, in a recent report on the problem.

Boston water and sewer bills have risen 39% in the past two years as the costs of cleaning up Boston Harbor have been phased into rates. During the period, water shutoffs as a result of nonpayment of water bills have tripled, according to the Boston Water and Sewer Commission. The 1,200 shutoffs in 1991 represent "just the tip of the iceberg," compared with the number of households having trouble paying utility bills, says Robert Ciolek, executive director of the commission.

The law group estimates there are more than 100,000 households having trouble paying utility bills in the Boston area, forcing them to cut back on food, clothing and medical care. By 2000, it says, average annual household water and sewer bills in Boston will rise to about $1,600 from $500 now.

"People are going to start questioning the value of environmental projects" related to water if "the poor are pushed into the abyss" by water bills, says Mr. Ciolek. His agency is working with a coalition of Boston groups that advocates more federal money for water projects. The law group argues that a program of rebates is needed to offset low-income households' burgeoning water and sewer bills.

ATEC Environmental Consultants
Division of ATEC Associates, Inc.
9498 S.W. Barbur Boulevard, Suite 305-O
Portland, Oregon 97219
[503] 452-1571, FAX # [503] 246-0508

January 30, 1992

Mr. Alan D. Kiphut
Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, Oregon 97204

RE: Comments on Proposed Regulatory Amendments; OAR 340-122-205 through 360, Groundwater Cleanup Standards at Leaking Underground Storage Tank Sites

Dear Mr. Kiphut:

Thank you for the opportunity to provide the Oregon Department of Environmental Quality (DEQ) with comments on the proposed regulatory amendments to OAR 340-122-205 through 360. We appreciate and acknowledge the effort that you, your colleagues, and the Environmental Cleanup Advisory Committee (ECAC) have devoted to preparation of the proposal package. These proposed amendments will have far-reaching impacts on UST owners and operators; the opportunity to provide constructive input is, therefore, critical and greatly appreciated.

The proposed amendments address several areas that will affect characterization and cleanup at Leaking Underground Storage Tank (LUST) sites, including proposed cleanup standards for various compounds in groundwater, sampling frequency and analytical methods, etc. The following comments address several of these specific areas.

Background

Certainty and consistency in the petroluem UST cleanup process appear to have been a major objective underlying preparation of the proposed amendments (see Attachment B, "Statement of Need for Rulemaking," Proposal Package). Achieving certainty and consistency is a goal of all interested parties involved in LUST sites; however, while the goal is shared, the means of achieving that goal vary among the parties. It is our observation that many UST owners and operators feel that the proposed groundwater cleanup standards go beyond a reasonable level of analysis and cleanup. Therefore, these parties might more fully support consistency but with fewer and less expensive compounds targeted for collection and analysis.

I-8

Proposed Standards: Compounds

Current DEQ regulations require collection and analysis of several types of compounds associated with soil and/or groundwater contamination at LUST sites. In particular, OAR 340-122-340 specifically identifies Total Petroleum Hydrocarbons (TPH), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and waste oil UST-specific analyses that must be completed under various scenarios at LUST sites. With the exception of the 'fast-track' soil matrix standards for TPH (OAR 340-122-335), current DEQ UST regulations do not specify cleanup levels for the compounds noted in this paragraph.

The proposed regulatory amendments establish groundwater standards for several classes of compounds, including BTEX, Polynuclear Aromatic Hydrocarbons (PAHs), Ethylene DiBromide (EDB), Ethylene DiChloride (EDC), and lead. It is not clear that these analyses are appropriate in all, or potentially any, circumstances at LUST sites. The proposal package references an article indicating that PAHs are frequently found in groundwater contaminated by petroleum releases (Attachment F, "Background and Advisory Committee Recommendation"). The article, however, presents data derived from laboratory experiments involving conditions presumably never encountered in the field (e.g., ground water temperatures between 75 and 80 degrees Farenheit, continuous agitation over a 24 hour period, etc.) It is difficult to conceive that these data could be extrapolated to describe field conditions, and particularly, the 'frequent' presence of PAHs in ground water at petroleum release sites.

The proposal package further references several states that may have adopted cleanup standards for compounds included in Oregon's proposed amendments. For example, apparently Washington, New York, and South Dakota have promulgated cleanup standards for EDB and EDC, while Washington, New York, Michigan, Minnesota, and South Dakota have addressed PAHs. Our initial research indicates that additional interpretation of these states' regulatory requirements would be in order. For example, WAC 173-340-720 ("Ground water cleanup standards") defines Method A cleanup levels for EDB (30 ug/L) and carcinogenic PAHs (0.1 ug/L), but does not include a EDC standard as indicated in the proposal package. In addition, the applicable concentrations included in WAC 173-340-720 do not appear to reflect those concentrations listed in Attachment F.

A more significant issue involves the applicability of conducting collection and analysis for compounds listed in Attachment F. In Washington, for example, the Department of Ecology (DOE) has prepared a document titled "Guidance for Site Checks and Site Assessments for Underground Storage Tanks," (DOE, February, 1991) in which required compound analyses include TPH, BTEX, and total lead, but not EDB, EDC, or PAHs. Minnesota's Pollution Control Agency has promulgated what appear to be recommended compound analyses for soil and ground water at LUST sites ("Soil and Ground Water Analysis at Petroleum Release Sites," Minnesota Pollution Control Agency, May 1991). EDB, EDC, and PAHs are not required for collection and analysis for either soil or ground water.

In summary, an analysis of states referenced in Attachment F as having promulgated EDB, EDC, and PAH standards indicates that additional investigation is required. It appears likely that while some congruent groundwater standards may have been promulgated in these states, it is also apparent that EDB, EDC, and PAH groundwater sample collection and analysis are not typically required at LUST sites in other states.

The proposal package does not include field data that indicate the presence of gasoline additives and PAHs at LUST sites, either in Oregon or other states. We believe it is critical that regulatory requirements for sample collection and analysis of specific compounds should be directly related to field data indicating the presence or absence of the targeted compounds at LUST sites. These data, ideally, should be collected in the state of Oregon, or if not available, from other states that presumably have collected these data under comparable field conditions.

Proposed Standards: Site Conditions

The proposed amendments require site-specific compound analyses (e.g., BTEX at gasoline release sites) and compound-specific analyses (e.g., EPA Method 8310 for PAHs). If field data confirm the potential for proposed compound analyses, additional site-specific criteria may further control expanding analytical costs. For example, if additional data evaluation indicates that PAHs are typically detected only when free product is present at the water table, then PAH sample collection and analysis might realistically be limited to monitoring wells where free product is identified.

Proposed Standards: Frequency of Sample Collection/Analysis

Prior to site closure, the proposed amendments require acceptable results (i.e., compound concentrations at or below proposed standards) from a full year of quarterly sampling/analysis at site monitoring wells. However, if a clear groundwater gradient is established and verified at each quarterly sampling event, it may be acceptable only to collect samples for semi-annual or annual analyses at upgradient monitoring wells. This approach would provide the DEQ with necessary downgradient information, would reduce site costs for the UST owner/operator, and may reasonably be expected to protect public health and safety and the environment.

Proposed Standards: Indicator Compounds

If an evaluation of field data indicates the need for generic or site-specific compound analyses, it is possible that indicator compounds may be utilized to demonstrate initial cleanup effectiveness. For example, if PAHs in groundwater appear to be associated with free product, a TPH indicator concentration may be appropriate as a surrogate measure for PAHs. This approach would allow for measurement of a well-understood compound, would reduce analytical costs, and could be based on a scientific assessment of relative conentration ratios (i.e., TPH to PAHs in ground water at LUST sites).

Projected Costs

Attachment C, "Fiscal and Economic Impact Statement," appears to underestimate the impact of costs associated with the proposed amendments, particularly increased analytical costs. It is our experience in Oregon that LUST sites where ground water is impacted typically involve between six and 12 monitoring wells. If we assume nine wells as an arbitrary average, and the worst-case scenario of a gasoline/diesel release, additional analytical costs for lead, EDB, EDC, and PAHs will require a minimum of approximately $400 per monitoring well. This cost, multiplied by nine monitoring wells and by four quarters of sampling and analysis, would require a minimum of an additional $14,400 per year in analytical costs, or $43,200 per three-year period. This is three times the three-year period cost of $14,400 referenced in Attachment C.

Further, most UST owners and operators have multiple sites. Mid to large-size petroleum jobbers may have as many as ten sites in characterization/remediation at any one time. If ten sites are in the worst case, gasoline/diesel scenario, additional costs for a single UST owner/operator may exceed $145,000 per year. The major oil companies may have four to five times this number of active characterization/remediation sites. Thus, additional analytical costs under the proposed amendments could have an overwhelming impact on all categories of UST owners/operators.

Finally, Attachment C does not address the potential for additional costs associated with remediation of heavy compounds like the PAHs. These compounds would presumably not be amenable to traditional volatile petroleum product remediation technologies (e.g., air stripping towers, etc.). Thus, an economic impacts analysis would need to address the additional costs associated with cleanup options for these heavier compounds.

Recommendations

Given the issues raised above, we present the following recommendations regarding proposed amendments to OAR 340-122-205 through 360:

1) Delay further consideration of the proposed amendments until additional appropriate information, including in-the-field conditions at LUST sites, has been gathered and evaluated.

2) Form a Working Group, including representatives from applicable interested parties and DEQ staffpeople, to evaluate collected information.

If representative, in-the-field data are not readily available to DEQ, it is our understanding that UST owners/operators, consultants, and other parties in Oregon will work cooperatively with the DEQ to develop an appropriate database.

Thank you again for the opportunity to provide comments on the proposed amendments. I am looking forward to working with you and others to respond to our concerns.

Very truly yours,

ATEC ASSOCIATES, INC.

Christopher C. Wohlers
District Manager

Bergeson-Boese & Associates, Inc.

Hydro-Geotechnical Research

2560 Frontier Drive
Eugene, Oregon 97401

(503) 484-9484
Fax (503) 484-4188

January 22, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, OR 97204

RE: PROPOSED AMENDMENTS TO UNDERGROUND STORAGE TANK CLEANUP RULES
NUMERIC GROUNDWATER CLEANUP STANDARDS

To Department of Environmental Quality:

Bergeson-Boese & Associates, Inc. (BB&A) is a hydrogeological and engineering research and consulting firm. Much of the work we perform is associated with the investigation of subsurface petroleum releases affecting soil and groundwater. BB&A also operates an analytical testing laboratory under the name Pacific Northwest Laboratories.

Our professional staff, including geologist, engineer, chemist, and hazardous material specialist, have carefully reviewed the proposed rule changes. Although we support those sections of the proposed rule changes that address compliance monitoring points, preliminary compliance, and final compliance, we disagree with the inclusion of lead, ethylene dibromide (EDB), and ethylene dichloride (EDC) as additional analytical parameters. It is our professional opinion that these parameters should be omitted from the numeric groundwater standards. The rationale for this position is presented below.

The professional staff of BB&A has concluded that analysis for total lead in groundwater is not a reliable indicator of petroleum contamination at underground storage tank (UST) sites. BB&A has collected groundwater samples from approximately 90 monitoring wells during the fourth quarter of 1991. Lead has been detected above 5 ppb in nearly every well sampled during this quarter. However, in approximately 50 of those wells sampled, no presence of any other petroleum constituent has ever been detected. Based on this data, we have concluded that total lead detected in groundwater is most probably from native sediments.

The State of California Leaking Underground Fuel Tanks (LUFT) Task Force has stated in the LUFT Field Manual that due to the difficulties in discerning between organic lead and total lead, analysis for lead should only be used under certain site specific conditions. An example would be at sites where significant leaded gasoline leaks have occurred. Caution is advised, however, that background total lead concentrations must be known in order to distinguish between naturally occurring lead and organic lead associated with subsurface petroleum releases.

The professional staff of BB&A is similarly of the opinion that the inclusion of EDB and EDC as parameters in the numeric groundwater rules is unwarranted. As presented in Appendix I of the State of California LUFT Field Manual, the concentration of benzene in gasoline in percent by weight is 0.12 to 3.5. The concentration of total benzene, toluene, ethylbenzene, and xylene (BTEX) in gasoline in percent by weight is 6.43 to 36.47. The concentration of EDB and EDC in gasoline in percent by weight is, however, 0.00007 to 0.02 and 0.02 to 0.03 respectively. In other words, EDB and EDC may comprise less than one fifth of one tenth of a percent (i.e., 0.02%) of gasoline by percent weight, or one to three orders of magnitude less than benzene and total BTEX.

The same 90 wells sampled for lead were also sampled for EDB and EDC. Of these 90 wells, EDB and EDC were detected in only 3 wells at one site. The concentrations EDB and EDC in each of these three wells were below 80 ppb. The wells were located near the original source of the release. The same wells also contained levels of volatile aromatic hydrocarbons (BTEX) in the tens of thousands ppb.

From this data, the professional staff of BB&A has concluded that because of the very low concentration of EDB and EDC in gasoline in percent by weight, the chances of detecting EDB and EDC are low. Detection would only occur in instances where the concentration of BTEX is very high as illustrated in the above example. Given existing testing requirements for BTEX, analysis of EDB and EDC is, in our opinion, essentially unwarranted.

The State of California, as stated in the LUFT Field Manual, has thoroughly studied petroleum fuels. This study has lead the LUFT task force to conclude and to justify requiring only testing for total petroleum hydrocarbons (TPH) and volatile aromatic hydrocarbons (BTEX) at UST sites. We would recommend that the Department of Environmental Quality review the evidence used by the State of California to reach this conclusion.

As presented in the Fiscal and Economic Impact Statement (Attachment C), an example of the estimate of cost associated with the additional sampling and laboratory analysis is projected to range from 7% to 14% in relation to total site investigation and cleanup costs. Based upon our experience during the fourth quarter of 1991, this estimate may be low. Regardless of the accuracy of the estimate of cost, the issue in our opinion rests upon the value of what is perhaps superfluous data as weighed against the cost of performing this additional sampling and laboratory analysis. We would recommend that the Department of Environmental Quality review more fully this issue.

Thank you for the opportunity to submit these comments.

Sincerely,

Bergeson-Boese & Associates, Inc. I-15

Randall J. Boese, RPG
Project Manager/Hydrogeologist

BONBRIGHT OIL COMPANY

1608 Southgate Place • P.O. Box 98 • Pendleton, OR 97801

"THE NUMBERS YOU SHOULDN'T FORGET"

PENDLETON	ATHENA	HERMISTON	FAX
276-6666	566-2000	567-5000	276-6676

DEPARTMENT OF ENVIRONMENTAL QUALITY 1/15/92
ENVIRONMENTAL CLEANUP DIVISION
UST CLEANUP SECTION
811 SW SIXTH AVENUE
PORTLAND, OREGON 97204

DEAR SIR:

This letter is my firms written comment on the Department of Environmental Quality's (DEQ) proposing amendments to the UST Cleanup Rules to provide the numeric cleanup standards and to delineate the groundwater cleanup process.

Our firm is a member of the OREGON PETROLEUM MARKETERS ASSOCIATION (OPMA). This association under takes an advisory role to help its members understand policies and rules and rule making by our governmental entities. Through an investigation into the proposed rules by the DEQ our association has taken the position that adoption of the proposed rules will pose significant costs to Underground Storage Tank owners and operators. That the experience with LUST sites on a regional and or national level may not support the level of proposed constituent standards. That additional investigation into LUST sites will result in more efficient and effective standards.

Therefore my firm sides with our association in recommending that you delay the adoption of the proposed rules and regulations until additional information (e.g., compounds to be included, conditions of sample collection and analysis, etc.) has been thoroughly evaluated. More time is needed to review these standards and rules.

Again in conclusion my firm concurs with the OPMA in requesting that the DEQ delay the adoption of the proposed rules and standards and investigate further before adoption.

Sincerly,

I-16

SCOTT E. COLONY
GENERAL MANAGER

GEORGE E.BONBRIGHT
PRESIDENT

BYRNES OIL CO., INC.

513 S.W. 6th
P.O. Box 700
Pendleton, Oregon 97801
(503) 276-3361

AN INDEPENDENT FRANCHISEE OF
PACIFIC PRIDE
THE COMMERCIAL FUELING SYSTEM

Dept. of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Ave.
Portland, OR 97204

Concerning your proposed amendments to UST cleanup rules 340-122-205 through 340-122-360. These are very complex rules and issues to deal with for many people. We will all need more time to review the new rules and standards for both petroleum groundwater cleanup and hazardous substance soil cleanup.

DEQ should look into regional and national LUST site cleanup standards to develop more efficient and effective cleanup standards for people in Oregon.

Oregon is still a state with no state cleanup fund. It is imperative that the DEQ cooperate with tank owners so that they may survive the cleanup standards.

Sincerely,

F. L. Byrnes

Sam Byrnes

I-17

Chevron U.S.A. Inc.
P.O. Box 220, Seattle, WA 98111

January 30, 1992

Comments on UST Cleanup Rules and Proposed Amendments to OAR 340-122-205 through 340-22-360

Mr. Alan D. Kiphut
Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, OR 97209

Dear Mr. Kiphut:

The State of Oregon Department of Environmental Quality has worked diligently to develop Regulations to establish petroleum cleanup rules. The rules were initiated to more effectively cleanup soil and ground water contamination resulting from the release of petroleum products from UST systems. The purpose of the initial rules and for the proposed amendments is to foster consistent cleanup of petroleum UST releases throughout the state, and to protect public health, safety, welfare and the environment.

Much effort has gone into developing a set of guidelines that can be applied to all releases of petroleum products from service stations, bulk plants and larger private system tanks. The establishment of very protective numeric cleanup standards appears to set requirements that will ensure a safe and clean environment in most petroleum releases. These rules also provide agency personnel in the regions and field offices with guidelines they can measure and follow to determine when contamination is below levels of public concern.

Chevron has been conducting site assessment and remediations on a large number of sites in Oregon over the past four years. Our objective is to voluntarily comply with the environmental regulations DEQ has written. The Northwest Region Site Assessment and Remediation group accomplishes this work in eleven states. The group has developed a broad base of experience working on more than 400 sites with hydrocarbon contamination. We have also obtained reviews from Chevron Law Department, Chevron Research and Technology Corp., and from consultants. I will attach comments from PTI Environmental Services and Chevron Legal Department for your review.

Comments on the proposed LUST regulations amendments:

The majority of these proposed amendments have already been placed in DEQ regulations by a policy statement issued by Lon Revall on August 31, 1991. DEQ has the authority to issue policy changes as is necessary. The normal procedure is to submit changes to ECAC for review and allow public comment before being placed into the regulations. I understand that these changes were written because the field offices were enforcing different numeric values and setting their own requirements. The method of enforcing a policy before review establishes a standard that may not

be justified or in the best interest for all concerned. It is very difficult to convince the agency to make changes to practices placed into policy in this manner. The short term administrative differences could have been solved with a guideline to follow rather than establishing a policy without public review or comment.

Chevron supports the ability to initiate a voluntary cleanup prior to CAP submittal.

We support requirement for the use of a minimum of one up gradient and two down gradient wells for site characterization.

- Need language to clarify when or if wells are required. The rule needs clarification on when groundwater is considered to have been contaminated.

- It may not be necessary to continue monitoring all existing wells during remediation and post remediation phases. Wells must be selected on an individual basis to meet cleanup control objectives.

We support flexibility for setting monitoring frequency based on individual site conditions.

We support the opportunity given to use a risk assessment and technical feasibility study to justify cleanup levels less stringent than published "cleanup levels."

- Suggest the development of a guidance document by a technical advisory committee to clarify risk assessment components.

We support the use of designated compliance point(s) to judge effectiveness of remedial action.

- Recommend that for small active sites, such as service stations, the compliance point should be located at the down gradient property boundary.

We support the concept of suspending remediation system operation upon one sampling event showing compliance with preestablished cleanup levels. Also support site closure after four consecutive quarterly monitoring events with complying levels of contaminants at the compliance points.

We support the use of asymptotic level concept to determine closure when use of best available technology fails to result in meeting cleanup levels.

We support the potential to use institutional controls when the use of best available technology fails to result in meeting cleanup levels.

In the reporting requirements we propose language that would allow the DEQ flexibility in setting monitoring reporting requirements. It may be more appropriate to submit monitoring data on an annual basis, rather than 45 days after each sampling event. This would reduce administrative cost for the PRP and also alleviate DEQ workload. Wording could be added to the policy requiring earlier submittal of monitoring data if any unexpected or unusual circumstances occur.

Chevron does not agree with the criteria to test for Gasoline Additives or PAHs in groundwater sampling. DEQ requirements adds an additional $400 per sample tested. The reporting limits for PHAs are extremely low, and the proposed limits below the PQLs are unjustifiable. There is no current appropriate cleanup technology that will effectively remediate ground water to the reporting levels. Collecting these data and listing sites in the state register with levels below MCLs will limit use of property or reduce property value. This will also cause additional legal liability for conditions that may not be correctable. The additional testing is estimated to add at least $1,500 initially to each assessment.

Comments on the current LUST regulation:

The regulations were written within a framework to protect public health, safety, welfare and the environment. The primary emphasis has been placed on public health, safety and the environment. The welfare of the various businesses, property owners and community at large have not been given equal consideration in the development of the regulations. Chevron and other companies have reduced the number of operating units in Oregon and other states in part because of the cost to meet environmental requirements. Most stations that have been upgraded with systems to be more protective of the environment over the past three years have caused assessment and remediation costs in excess of the improvements. These costs will have to be passed on to the consumer.

The companies that are voluntarily upgrading facilities and completing environmental cleanup are placed at a financial disadvantage to compete in Oregon. The site assessment and cleanup cost for a typical service station is averaging about $140,000 per site. Cost on some sites have exceeded $300,000. Our efforts to complete this work before it is required reduces our ability to recover cost in a competitive market with many stations that have not started this work.

The Underground Storage Tank Financial Assistance Program was passed as SR 1215 last year. There are many station operators that are unable to support the cost of replacing tanks and lines from operating profits of their businesses. The State has offered loan guarantees up to 80% of $100,000, or grants to those who qualify. Other benefits include insurance co-payments and reduced interest on the loans. Our experience in replacing tanks with double wall fiberglass tanks and lines for a station has been about $85,000 to $100,000. In most cases owners or operators will not know the extent of environment assessment and cleanup cost until they secure loans and start work on their site. Independent dealers that could not afford the $100,000 investment from their business profits to replace equipment will find it even more difficult to obtain funds to complete cleanup to DEQ requirements. The average cost to upgrade and meet cleanup requirements will be closer to $250,000 per site.

The agency has placed a higher priority on enforcement this past year. Much of the enforcement activity has been on small administrative points rather than on failure to act in a responsible way. The enforcement of reporting and submitting a CAP within a limited number of days has greatly increased cost to the RP without improving the cleanup process. DEQ requiring RPs to report a release if there is any sign of hydrocarbons detected in the ground is unrealistic and adds much cost to the RP as well as DEQ administrative cost. DEQ is passing on the direct and indirect cost to the RP, adding many additional dollars to the cost of voluntary cleanups.

Most service stations sites have hydrocarbons in the soils due to many years of operation. The

majority of hydrocarbons found are well aged and have been in the ground for five to twenty years. The contamination has usually reached an equilibrium state in the soil and groundwater and any short term emergency response measures will not reduce effects on the environment. If there is no evidence of a recent or current release, or of phase separated hydrocarbons on the water table, then the additional cost of emergency reporting and corrective actions is unwarranted. The cost to prevent a Notice of Violation in meeting administrative requirements adds about $6,000 per site. This effort is frequently non-productive and slows the final cleanup.

The numeric standards for soil and groundwater allow data measurement to make determinations if sites are clean or require cleanup work. There are many petroleum contaminated sites the DEQ requires cleanup based on TPH values. TPH values do not give any indication of health or safety risk and usually impact aesthetic value only. The DEQ should have risk based values to establish minimum cleanup requirements. Possibly more than half the cost of cleaning up hydrocarbon contamination is for aesthetic values only, and public safety and the quality of the environment is not diminished by this contamination, particularly since gas stations are paved and soil is inaccessible. This additional cost has a large impact on the states economy and on the personal welfare of the people.

I would recommend Washington's MTCA Method B as an effective and protective model to follow as a risk approach for voluntary cleanup actions. There are cost savings in co-sponsoring studies and preparation of cleanup procedures for DEQ and WDOE. Each state would benefit from reviewing the other state's research and working towards common cleanup regulations.

The enforcement efforts by DEQ to define the plume of contamination off-site for low levels of dissolved components is possibly the most difficult to comply with, and has the highest potential cost to RPs. Many facilities are clustered in locations and it is difficult to determine the actual source or RP for contamination. The burden of proof is placed on the person conducting the assessment to prove that contamination is from another source. This can add $15,000 or $30,000 to assessment cost that may not be recoverable from the responsible party. The enforcement action requires someone to cleanup, and DEQ can press their enforcement against the party who discovered the contamination instead of the party that caused it.

The legal and potential liability cost in this area can be $100,000 or more per site. Enforcement efforts will turn voluntary cleanups into superfund litigation battles, and instead of solving the contamination problems RPs will have to defend themselves in court. Chevron's experience with the superfund methodology is that the majority of environmental cost has been diverted to legal and administrative work, for both the RPs and the government. Corrective plans or cleanup efforts are put on hold until the legal issues can be resolved. Chevron's Law Department recommends that voluntary cleanup work presents a high risk to our company and that we should not start capital improvement projects in Oregon that requires site assessment. These comments are attached.

The extremely protective numeric standards also impact Oregon's economy by increasing insurance premiums, increasing lending cost, if the banks will make the loan, increasing developers cost and risk, and slowing down or stopping many construction projects. Property values will be reduced lowering property tax income and reducing owners investment values. Risk based cleanup standards that will not require costly cleanup for aesthetic value could reduce current cleanup cost by 65% or more. If the banks, insurance companies, developers and other investors had realistic workable

cleanup standards, and if they had confidence that the regulations were not going to change in the future with potentially large liabilities, there would be more profits to encourage business and development.

The State of Oregon has worked hard to established good environmental regulations. The full impact on the welfare of the people of Oregon will not be recognized until most of the fuel tanks have been replaced. The cost is much higher than the estimates provided to the legislature. The loss of additional gasoline facilities will affect many of Oregon's residents and businesses. DEQ needs to include the welfare or economic impact as an equal in the formation and changes in the LUST regulations.

Sincerely,

M C Knutson

M. C. Knutson
Environmental Coordinator

MCK:clw
Attachments

PTI
ENVIRONMENTAL SERVICES
15375 SE 30th Place ■ Suite 250 ■ Bellevue, Washington 98007 (206) 643-9803 ■ FAX (206) 643-9827

October 24, 1991

Mel Knutson
Chevron U.S.A. Inc.
P.O. Box 220
Seattle, WA 98111

Subject: Review of Oregon Regulations
PTI Work Assignment No. C1390601

Dear Mel:

This letter presents PTI's review of Oregon State's existing and proposed regulations regarding underground storage tanks and hazardous waste sites. In addition, PTI's comments on the proposed regulations are provided, possibilities for long-term changes to the regulations are discussed, and some comments are provided on ways in which flexibility in the existing regulations could be made use of to allow some corrective actions to begin before submittal of a complete corrective action plan.

Comments on Proposed Underground Storage Tank Regulations

The proposed underground storage tank regulations contain procedures and cleanup standards for remediation of groundwater contaminated by a release from a leaking underground storage tank. The Oregon Department of Environmental Quality (DEQ), in attempting to provide numerical cleanup standards in the regulations, is responding to a perceived need to ensure consistency in the way that cleanups are performed. There are two ways to ensure consistency for site cleanups. One is to provide a framework for developing cleanup standards, so that all sites will go through the same process but may end up with different cleanup standards, depending on site-specific factors. This method provides a consistent level of protectiveness. The other method of addressing consistency is to require all sites to achieve the same cleanup standards. While potentially appearing more consistent on the surface, this approach may result in varying levels of protectiveness depending on particular site characteristics.

DEQ is primarily relying on the latter approach in setting groundwater standards for releases from underground storage tanks. However, they have left the door open in the proposed rules for alternative methods that consider site-specific factors. PTI has focused its comments on highlighting these alternative methods, making them appear less negative, and ensuring that the cleanup proponent has the option to use the alternative methods. A brief section is proposed to be included that lists the types of site-specific

factors that may be considered. PTI's proposed changes to the current form of the regulations are provided as Attachment A.

In addition to the redlined changes, PTI has the following specific comments regarding the proposed regulation:

- The basis for each proposed standard should be explained in the rule itself using footnotes, such as those provided in the proposed soil standards for hazardous waste sites.
- A matrix approach for groundwater should be considered such as that used in developing soil standards for releases from underground storage tanks, considering such factors as current and potential use of groundwater, number of receptors, and distance to receptors.
- OAR 340-122-090(5)(a) states that background concentrations are presumed to be protective of human health and the environment. "Background level" is defined in OAR 340-122-020(2) as "the concentration of hazardous substance (sic), if any, existing in the environment at the site before the occurrence of any past or present release or releases." Therefore, cleanup standards for carcinogenic PAHs should be adjusted upward, not only to reflect practical quantification limits (PQLs) as allowed for in the proposed regulations, but to reflect natural and/or ubiquitous anthropogenic background concentrations of PAH compounds. Such background concentrations may be higher than concentrations for carcinogenic PAHs derived through a risk-based process.
- The proposed regulation states that the PQLs for carcinogenic PAHs shall serve as the cleanup standards. In the interests of clarity, the regulation, a preamble to the regulation, or a guidance memorandum should provide some explanation of how the PQLs used in setting standards for carcinogenic PAHs will be determined.

In addition, PTI has the following comments on other portions of the underground storage tank regulations:

- A definition of the phrase "discovery of a release" should be added to the regulation, to assist in determining when the 24-hour reporting period begins. To avoid unnecessary expense associated with potentially misidentifying a release and to allow appropriate corrective measures to be taken, PTI recommends that a distinction be made between historical or long-term low-level releases and current spills or other emergencies. Unless free-phase product is observed, receipt of analytical results from a laboratory should be considered the point at which a historical release is discovered or confirmed. A time limit (such as 30 days) could be placed on the time required to collect samples and receive analytical results. In the case of historical releases or long-term, low-volume leaks, the additional time needed to confirm the type and level of contamination would not result in a significant increased risk to human health or the environment.
- If the above change is not instituted, the time periods within which initial corrective measures must be taken and data reported to DEQ as the result of initial abatement measures or initial site characterization should be increased. 20 days and 45 days, respectively, are in many cases insufficient to assemble necessary personnel or contractors, receive analytical results from laboratories, and write up these results in a presentable manner.

PTI ENVIRONMENTAL SERVICES ■ 15375 SE 30th Place ■ Suite 250 ■ Bellevue, Washington 98007 ■ (206) 643-9803 ■ FAX (206) 643-9827

Long-Term Changes to the Regulations

Although PTI believes that greater detail on methods of setting site-specific cleanup standards (such as are provided in Washington State's Model Toxics Control Act) would be desirable in the proposed regulations, such an approach would be inconsistent with the current level of detail that DEQ has in its regulations. For example, placing information on a streamlined method of risk assessment in the underground storage tank regulations would result in that section being more detailed than the information regarding risk assessment in the main body of the hazardous waste site regulations. These types of changes are better addressed in long-term revisions to both sets of regulations.

It has been PTI's experience that state agencies are not enthusiastic about site-specific methods of setting cleanup standards because of the need for consistency and the perception that such processes can be manipulated. However, methods can be developed that reduce inconsistency in the process while still accounting for site-specific factors. An example of such a method is Method B of the Model Toxics Control Act, which provides guidance on determining land and water use, exposure assumptions, risk equations, methods of determining background concentrations, and many other considerations. Such an approach would guide DEQ staff and responsible parties in implementing consistent cleanups while addressing site-specific factors.

Because numerical cleanup standards expected to be protective at all sites are necessarily overly stringent for certain site conditions, a more site-specific approach saves time and resources (both public and private) in cleaning up sites. Methods for standardizing the development of site-specific cleanup standards may be included directly in the regulations or may be included in DEQ guidance documents. This is an issue that affects both the underground storage tank regulations and the hazardous waste site regulations, and should probably be addressed simultaneously for each through workgroups or other interactive means.

Site-specific methods of developing cleanup standards can have significant cost savings even for smaller, more routine sites, such as gas stations. To minimize the cost of developing such standards, streamlined methods of setting site-specific standards can be developed. For example, risk assessment methods can be standardized for a category of sites possessing similar characteristics and conditions relevant to risk assessment. This is accomplished by developing risk assessment methods tailored to the exposure and toxicity issues of greatest concern at a specific category of sites.

One of the first steps in this process is to develop a list of substances of primary concern at a specific type of site. This approach has already been taken in the UST regulations, which identify the specific compounds for which sampling and analysis must be conducted for several types of site [OAR 340-122-255 (5)(b)]. As described in the regulations, the substances of primary concern at petroleum-contaminated sites are volatile aromatic hydrocarbons, gasoline additives, and polycyclic aromatic hydrocarbon (PAH) compounds.

The physical, chemical, and toxicological properties of these compounds determine the types of exposures and health risks of primary concern at sites where they are present. As recognized in the UST regulations, volatile aromatic hydrocarbons [e.g., benzene, toluene, ethylbenzene, and xylenes (BTEX)] are of primary concern at sites where the contamination source is gasoline. Because these chemicals readily volatilize into air and are highly soluble in water, exposures via inhalation (as well as ingestion of and dermal contact with water) will be of primary concern at such sites. By contrast, for sites where PAH compounds are the primary contaminants (e.g., sites where contamination is from heavier heating

PTI ENVIRONMENTAL SERVICES ■ 15375 SE 30th Place ■ Suite 250 ■ Bellevue, Washington 98007 ■ (206) 643-9803 ■ FAX (206) 643-9827

oils), ingestion of (and, to a lesser degree, dermal contact with) contaminated soil and sediment are likely to be the most significant contributors to exposure. This is because PAH compounds are typically heavier molecular weight, semivolatile compounds that are more likely to adsorb to soil and sediment than volatilize into air.

Such information could be used to develop standardized approaches for the types of exposure and risk likely to contribute most significantly to total risks at specific types of sites. These standardized approaches would then allow for efficient incorporation of site-specific considerations in developing cleanup standards.

Beginning Remedial Action Before the Corrective Action Plan is Submitted

There are several parts of the existing regulations that permit the responsible party to begin cleanup before the corrective action plan is submitted and approved by DEQ. For example, under OAR 340-122-250 (*Corrective Action Plan*), it is stated that:

> Owners, permittees, or responsible persons may, in the interest of minimizing environmental contamination and promoting more effective cleanup, begin cleanup of soil and groundwater before the corrective action plan is approved provided that they:
>
> (a) Notify the Director of their intention to begin cleanup;
> (b) Comply with any conditions imposed by the Director, including halting cleanup or mitigating adverse consequences from cleanup activities; and
> (c) Incorporate these self-initiated cleanup measures in the corrective action plan that is submitted to the Director for approval.

In addition, OAR 340-122-220 and OAR 340-122-225 require the responsible party to do the following before development of a corrective action plan:

- Take immediate action to prevent any further release of the regulated substance into the environment
- Remove as much of the regulated substance as necessary to prevent further release into the environment
- Prevent further migration of the released substance into surrounding soils and groundwater
- Remedy hazards posed by excavated or exposed soils that are contaminated, including, if necessary, treatment or disposal of soil
- Begin free product removal as soon as practicable, in accordance with the guidelines provided in OAR 340-122-235.

If difficulty is encountered in implementing either of the above two provisions, a letter to the Director, describing how the corrective actions taken are necessary to meet the protectiveness goals described above, using specific language from the regulation, would be advisable.

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The portions of the regulation described above allow the cleanup proponent to begin remedial action, but do not allow him to complete remedial action, before the cleanup action plan is approved by DEQ. The time needed to approve such a plan and complete remedial action may result in significant business losses while the gas station (or other facility) remains closed. PTI would like to recommend another approach to this problem.

It may be possible to negotiate a streamlined, standardized cleanup action plan with DEQ that would cover most of Chevron's gas stations (those that do not have unusual circumstances) in the state. The cleanup action plan would have the format of a form letter (or form report) that would provide blanks in which site-specific information is entered, or a checklist of common site attributes. For example, the form report could include a checklist for the type of material released at the site that would include all of the common types of contaminants at gas stations. The responsible person would simply check off the contaminants found at the site, check the analyses performed, and indicate the highest concentrations encountered and the approximate volume of contaminated soil and/or groundwater. A number of standard alternative remedial actions that are typically used at gas stations would be described, and the responsible person would simply check off those proposed for that site. Such a standardized cleanup action plan would be fast, relatively simple, and cost-effective to produce and would provide for quick turn-around by DEQ, because they would have agreed to the basic provisions ahead of time.

If such a standard cleanup action plan could be developed, Chevron could, if a problem were identified at a site, remediate the problem quickly and get the gas station back in business with a high probability that DEQ would accept the cleanup action conducted. Such a standard format should also increase DEQ's comfort level with allowing early cleanups. This form report would be best used at routine sites where lesser contamination is present and cleanup options are obvious.

If you have any questions regarding the above recommendations and comments, please contact me or Bill Farris at 643-9803.

Sincerely,

Teresa Michelsen, Ph.D.
Environmental Scientist

cc: Bill Farris, PTI
Mark Adams, AGI

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ATTACHMENT A

PROPOSED REVISIONS TO OAR 340-122-255

~~Highlighted text~~ indicates additions proposed by PTI
~~Struckout text~~ indicates deletions proposed by PTI
Unchanged text indicates text proposed by DEQ

(4) Selection of Standards

Unless otherwise determined by the Department, the approach described in (a) or (b) of this section shall be used to determine cleanup levels for petroleum contaminated groundwater. The approach described in (a) of this section is intended to provide generic cleanup levels that are protective at all sites. The approach described in (b) of this section provides an alternative method of setting protective, site-specific cleanup levels using data collected at the site and other information relevant to characterizing site-specific conditions.

(a) ~~Under this approach, g~~Groundwater cleanup standards for petroleum products shall be those levels listed in Section (5)(a) below unless the Department requires that groundwater be cleaned to federal or state water quality standards or secondary maximum contaminant levels (SMCLs), where available, or unless the Department finds that a more stringent standard is necessary to protect public health, safety and welfare or the environment.

(b) ~~For sites at which cleanup levels less stringent than those required by~~ If the responsible party conducting the cleanup elects to develop site-specific cleanup levels other than those contained in Section (5)(a) below~~ are being proposed~~, a risk assessment and technical feasibility study justifying those levels and showing adequate protection of public health, safety and welfare and the environment must be submitted and approved by the Department. The site-specific cleanup levels shall be developed using the procedures described in Section (5)(b) below.

(5) Cleanup Levels

(a) The basic numeric groundwater cleanup levels for petroleum UST contaminated sites are:

Volatile Aromatic Hydrocarbons		
Benzene	5 ppb	
Ethylbenzene		700 ppb
Toluene		1000 ppb
Total Xylenes	10,000 ppb	

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Gasoline Additives		
Lead		5 ppb
1,2-dibromoethane (ethylene dibromide, EDB)		1 ppb
1,2-dichloroethane (ethylene dichloride, EDC)		5 ppb
Polynuclear Aromatic Hydrocarbons (PAHs)		
Carcinogenic PAHs*		
Benzo(a)pyrene		.003 ppb
Benz(a)anthracene		.003 ppb
Benzo(b)fluoranthene	.003 ppb	
Benzo(k)fluoranthene	.003 ppb	
Chrysene		.003 ppb
Dibenz(a,h)anthracene	.003 ppb	
Indenopyrene		.003 ppb
Non-carcinogenic PAHs		
Acenaphthene	420 ppb	
Anthracene		2100 ppb
Fluoranthene		280 ppb
Fluorene		280 ppb
Naphthalene		28 ppb
Pyrene	210 ppb	

* The cleanup standards shown for carcinogenic PAHs are currently below Practical Quantification Levels (PQL). Until such time as those levels can be measured, the PQLs for carcinogenic PAHs shall serve as the cleanup standard.

(b) Site-specific cleanup standards shall be developed based on consideration of the following:

(A) Reasonable present and future uses of the site, including whether groundwater at the site is or could be usable as drinking water;

(B) The results of a risk assessment, performed in accordance with OAR 340-122-080(2)(c) using DEQ guidance or other methods approved by the Department;

(C) Other site-specific characteristics such as soil type and location of nearest receptor; and

(D) Technical feasibility considerations.

~~(b)~~(c) The specific compounds for which sampling and analysis will be required shall be determined by the Department based upon information about the use of the site, results of preliminary tests and other site-specific factors. Unless the Department specifies otherwise,

(A) At sites where contamination is from gasoline, it shall be necessary to analyze for volatile aromatic hydrocarbons and gasoline additives.

(B) At sites where contamination is from diesel, No. 1 or No. 2 heating oil, or similar petroleum product, it shall be necessary to analyze for volatile aromatic hydrocarbons and PAHs.

(C) At sites where contamination is from heavier heating oils or other residual fuels, it shall be necessary to analyze for PAHs.

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Memorandum
Chevron U.S.A. Inc.

Law Department
San Ramon, California
November 22, 1991

OREGON CLEANUP AND SPILL
RESPONSE STATUTE AND RULES

MR. M.L. KNUTSON:

You requested as part of Chevron's efforts to provide competent input and comment to the State of Oregon Department of Environmental Quality, regarding applicable Soil Cleanup Rules, that I undertake to review the proposed Rules and applicable Statutory Sections, in the context of Chevron's liability as it does and would exist under applicable Statutes and proposed Rules.

No analysis of the Rules is meaningful unless it is undertaken within the context of the requirements imposed by Statute.

ORS, Section 465.200 (12) defines an **owner** as a person who owned, leased, operated or exercised control over a facility at the time a release occurred.

ORS, Section 465.22 imposes upon persons or entities who owned or operated a site at the time of a release (**responsible parties**), **strict liability** for remedial action costs incurred by the State or any other person. This liability will attach without consideration of culpability or fault for the release.

ORS, Section 465.210 & 465.260(4) permits the Director to require any responsible party to conduct assessment, removal/remediation activities necessary to protect the public health.

(Draft Version 2.6) Rule 340-122-240 (1) requires the responsible parties to undertake an investigation of the release, the release site and surrounding area possibly affected by the release for the existence of contamination.

Rules 340-122-060(1)(a) & 340-122-070(1) permit DEQ to require a responsible party to perform a "preliminary site assessment" when information is received of a release or threatened release. DEQ may further, based upon information included in the assessment, require a responsible party to undertake a removal action.

Rule 340-122-255 (1) (a) (Version 2.6) indicates that a responsible party may be required to complete as many monitor wells as may be necessary to adequately characterize the site. Subsections (6)(a) and (7)(a) make it is an open question whether DEQ may require additional monitor wells to be installed on adjacent property as part of an effort to collect monitoring samples to the "edge of the contaminant plume"?

Rule 340-122-250(1) authorizes DEQ to require a responsible party to develop and submit a corrective action plan and to take those actions directed by DEQ to implement the plan.

Rule-122-360 (1) requires the responsible party to submit a final report to DEQ when the site has been remediated.

ORS, Section 465.260(5)(a) imposes liability upon a responsible party for action/response costs incurred by the State, if a party fails to act in a manner consistent with the Director's Order without sufficient cause. Subsection (8) provides authority for the imposition of punitive penalties of up to three times the State's action costs incurred as the result of the failure of a responsible party to take the action ordered by DEQ. ORS, Section 466.900 imposes civil penalties of $10,000/day for each violation of ORS Sections 465.200-465.420.

DISCUSSION

Sites Previously Owned by Chevron

In circumstances where Chevron owned fee property upon which service station operations were conducted previously, it is not uncommon for Chevron to have strong defenses to a claim by a subsequent owner that Chevron is responsible for contamination which is discovered to exist years after Chevron sold the site. Oregon Law however, implements the public policy and directive to protect the public's health and safety, and regardless of Chevron's rights and defenses to an owner's claim of liability to clean up a site, it gives the State the power to order Chevron to come onto a site and undertake to perform assessments, and work of remediation as a "responsible party". Chevron in most instances will have no right to come back onto the site, and may have valid defenses to any assertion by an owner that it is obligated to do so. Oregon Law does not recognize any of Chevron's defenses and fails to provide a system or procedure by which it can be determined which "responsible party" is culpable for the release at a site. Given the large costs associated with undertaking to perform an assessment and to further remediate a site, it is easy to assume that the DEQ will seek to involve Chevron at every site on which it has had a historical presence. In most instances it will not be possible for Chevron to argue at the outset when contamination is discovered at a site, that the release which caused the contamination did not occur during Chevron's tenure at the site, that it was caused by another party, or that it originated on adjoining property. The State of Oregon will not permit such a dialogue to be undertaken, but will rather order that the party or parties take action at a site without consideration of their respective responsibility/liability one to another at the site. Chevron with its "deep pockets" and experience remediating sites will, in most instances, be looked to as the responsible party with the primary duty and obligation to perform the tasks required by Statute and/or as ordered by DEQ.

Oregon Law while authorizing DEQ to order responsible parties to undertake directed actions at a site based upon strict liability of "owners", does not in any way preclude the responsible parties from undertaking separate civil actions to apportion response costs between them or to include those parties responsible for offsite releases which have contributed to or caused the subject contamination, in such an action for contribution. Realistically however, Chevron will in most instances be unable to successfully pursue contribution from other responsible parties. Most Judges and juries in Oregon can be expected to be more sympathetic to the plight of the small businessman or individual, than the plight of Chevron in any action seeking an equitable apportionment of liability for clean up costs.

The analysis regarding sites previously leased by Chevron, is similar to the above analysis related to former fee property where contamination was found. Many jurisdictions are following California's lead in analyzing liability of a prior tenant for contamination which remains on a site

after a tenant's departure. California Case Law presumes that no landlord would consent to the contamination of its site by its tenant. The presence of such contamination is seen as a trespass and a continuing nuisance upon which the statute of limitation barring suit is deemed to be renewed each day that the nuisance remains on the site. Chevron's exposure to civil liability for contamination which remained on former leased property while greater than the exposure to liability for contamination occurring on former fee property, is similar under the above-referenced Statutes and Rules regarding clean up.

Conclusion: Chevron should consider very closely the benefits versus the risks of voluntarily stepping forward to undertake site assessment/remediation actions regarding any contaminated site in Oregon.

Liability Accompanying Ordered Assessment/Removal or Remedial Action

(Draft Version 2.6) Rule 340-122-240(1) mandates that responsible parties investigate an alleged release, the release site and the surrounding area possibly affected by the release. (Draft Version 2.6) Rule 340-122-255(1)(a), (6)(a) and (7)(a), requires respectively that a responsible party install such additional monitor wells as may be required to adequately characterize the site, establish compliance monitoring points which are as close as physically practicable to the contamination source, and collect samples out to the edge of the contaminant plume. These rules do not limit the scope of the obligation to investigate and monitor to the contaminated site alone. DEQ could presumably order a responsible party (Chevron) to undertake to investigate contamination on property adjacent to the contaminated site for which Chevron is a defined responsible party. In order to comply with such an Order, Chevron could find it necessary to either commit a trespass, or to negotiate for and secure access rights to the site from the owner of the adjoining property. The owner of adjacent property is in a position to demand unreasonable consideration and impose unreasonable conditions upon Chevron in exchange for its consent to access to the site to perform the ordered investigation. If Chevron did not commit a trespass or acquiesce to an owner's unreasonable demands it may not be able to perform the investigation ordered on the adjoining site and would be subject to treble damage penalties and the imposition of fines pursuant to ORS Sections 465.260(5)(a) and 466.900 unless court protection is sought.

Conclusion: Faced with the alternative of acquiescing to the potentially unreasonable demands of an adjoining property owner or fines imposed by the State, Chevron may be forced to seek protection from the Court in the form of a declaration of rights and obligations under statutes and rules applicable to clean up of contamination in Oregon.

If there are other areas of concern regarding the Statutory Sections and Rules which are not addressed above and upon which you would like comment, please let me know.

Jon N. Robbins

JNR:me

JNR/MKT.NW/M/Oregon Cleanup Regulations

[redacted]

JANUARY 21, 1992

DEQ
ENVIRONMENTAL CLEANUP DIVISION
UST CLEANUP SECTION
811 S.W. SIXTH AVE.
PORTLAND, OR 97204

RE: PROPOSED AMENDMENTS TO UST CLEANUP RULES

GENTLEMEN:

PLEASE DELAY ANY AMENDMENT TO THE EXISTING UST CLEANUP RULES FOR AT LEAST ONE YEAR. WE ALL NEED TO REEVALUATE IF THE ADDITIONAL SAMPLE REQUIREMENTS ARE NECESSARY BASED ON THE NATIONAL CLEANUP STANDARDS. THE POTENTIAL EXPENSE OF THE PROPOSED AMENDMENTS ARE MUCH TOO EXPENSIVE TO BE IMPLEMENTED UNLESS NO OPTIONS CAN BE FOUND. WE NEED ADDITIONAL TIME TO ANALYZE AND DISCUSS THE CLEANUP STANDARDS.

VERY TRULY YOURS,

Ed Clough

ED J. CLOUGH
PRESIDENT

CC: FILE

EJC:ib

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David H. Couch
Attorney at Law
P.O. Box 1704
Medford, Oregon 97501
(503) 770-0328

January 24, 1992

UST Cleanup Section
Environmental Cleanup Division
Oregon Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, Oregon
Attn: Alan Kiphut

RE: **Written Comments**
Proposed UST Cleanup Rule Amendments
OAR Chapter 340, Division 122
Investigations for Soil and Groundwater Cleanup

Dear Mr. Kiphut:

The following comments are submitted on behalf of firm clients including owners of small and large businesses in Oregon. These companies are parties that may be potentially impacted by the proposed amendments to Oregon Administrative Rules, Chapter 340, Division 122, Sections 205 through 360, "Proposed Amendments to Underground Storage Tank Cleanup Rules."

The Department is proposing amendments to the UST Cleanup rules to provide expanded numeric standards and set out of an expanded and more detailed cleanup process. The proposed standards and process will have a significant impact or Oregon business, especially small business. Prior to adoption, careful review and analysis is imperative. The Environmental Quality Commission (EQC) should not be hastened into contemplating adoption without further consideration. It is opined that it is premature to adopt these rules at the current time and they may contain significant technical and procedural flaws.

In the main, Oregon Business has historically supported and been a national leader in working to protect public health, safety and the environmental. The national success story is the cleanup of the Willamette River. This cleanup was implemented long before there were the current stringent NPDES permits and discharge limitations. Oregon business, affected groups and government worked together to make the Willamette fishable and swimmable again. That spirit remains today.

The Department is to be commended for working with affected UST owners, operators, consultants, attorneys and other interested groups. Much of the work to protect health and the environment has come from the close relationship and team building that has characterized the rulemaking process.

RE: Written Comments
Proposed UST Cleanup Rule Amendments
OAR Chapter 340, Division 122
Investigations for Soil and Groundwater Cleanup

The individuals I represent support implementation of rules to make cleanups less complicated, protect health and the environment, and which are cost effective. We compliment the Environmental Cleanup Advisory Committee, the various groundwater advisory committees, DEQ staff and the other interested parties that developed the existing "Investigation for Soil and Groundwater Cleanup Rules and the proposed amendments."

The proposed amendments will affect owners, permittees and operators of regulated underground storage tanks containing motor fuel and heating oil. Owners of unregulated tanks containing these products will also be affected. The existing rules require the property owner, tank owner or tank operator to be responsible for cleaning up to a level that is protective of health and the environment. That responsibility is shared with the consultant hired by the owner or operator and several regulatory agencies.

The comments that follow are in three general themes:

1. Inadequate Review and Comment. Public review and comments has been insufficient. The proposed rules do not accurately recognize the individual nature of each site. The proposed rules remove service provider and professional discretion in determining the appropriateness of the remedial action.

2. De Facto/Procedural/Substantive Flaws. Guidance documents must be included in the rule package for review and comment. It would be improper rulemaking to adopt by reference the guidance documents cited in the proposed rules.

3. State of Fiscal Impact Insufficient. The statement of fiscal impact fails to comply with the rulemaking process. DEQ has not adequately considered the economic impacts as well as the direct costs of complying with the proposed rule changes. The agency has not stated how the rule has mitigated the "significant adverse impact" on small business.

Inadequate Review and Comment.

It is the overall feeling that there has been insufficient time for the effected parties to review the proposed rules, assess the fiscal impact and prepare or develop comments or alternatives. Previous oral and written comments have touched heavily on this matter. In particular, the comments provided

by the Oregon Petroleum Marketers Association, its consultant and members are supported herein.

There has been limited review and consideration by DEQ of comments by affected parties on the implementability and practicability of the suggested revisions. As previous discussions with Department staff and testimony already received have indicated, it would be counterproductive and expensive to mandate uniform testing and cleanup for all sites no matter the complexity or potential threat to health or the environment.

Certain testing parameters are not necessary or technically irrelevant. The consultant must be allowed to exercise professional discretion as every site has difference factors that must be considered. The UST cleanup rules must not contain rigid standards, extensive procedural requirements and limit professional discretion by the persons given responsibility for the cleanup - the property owner, operator and her consultant - and who bear the legal liability.

De Facto/Procedural/Substantive Flaws.

Rule making is required when agency policymaking conforms to the statutory definition of a "rule." ORS 183.310. A "rule" is defined as any agency directive, standard, regulation or statement of general applicability that implements, interprets or prescribes law or policy, or described the procedures or practice requirements of any agency. The term includes amendments to rules. ORS 183.310(8). Unlike the Federal Administrative Procedures Act (APA), Oregon law requires that even interpretive statements must follow the rulemaking formalities.

The proposed rules contain recommendations for adoption by reference of certain Guidance Documents. These guidance documents are "rules" under ORS 183.310(8) and the Oregon APA applies.

Before adopting or amending a rule, the agency must give fair notice of its action and an opportunity to submit data and views. Adoption of undefined standards or standards that may be subject to change by the agency in the future are subject to the APA procedures and departure may invalidate the rule. De facto rulemaking is beyond agency authority and violates Oregon law including the APA. It is opined that if guidance documents are to be included they must be made part of the proposed rule amendments in total and subject to review and comment.

RE: **Written Comments**
Proposed UST Cleanup Rule Amendments
OAR Chapter 340, Division 122
Investigations for Soil and Groundwater Cleanup

It is presented that adoption by reference of the Department's "Guidelines for Monitoring Well Drilling, Construction, and Decommissioning, 1991" in proposed OAR 340-122-255(1)(b) has not been included except by reference and is open to challenge under the Oregon APA.

Additionally, it is offered that adoption by reference of the "Department's Quality Assurance Project Plan Guidelines for State of Oregon Leaking Underground Storage Tank Program, 1991" as proposed OAR 340-122-255(2)(d) has not met the requirements of the Oregon APA. It is opined that consideration of these proposed rule amendments has failed to follow the rulemaking procedure and will result in invalidation.

State of Fiscal Impact Insufficient

It is opined that the fiscal and economic impact statement is inadequate. ORS 183.335(2)(b)(D), part of the APA, requires preparation of a Statement of Fiscal impact. The statue expressly demands an evaluation of economic impact on businesses generally and on small businesses particularly. It is offered that the Department has not used available information to project any "significant" effect of the rules on business. The agency statement has shown a "significant adverse effect" upon small business, but does not contain the required information on how to mitigate this effect by modifying the rule in accordance with ORS 183.540.

The 1987 Legislative Assembly amended "economic effect" to "the economic impact on affected business by and the costs of compliance, if any, with a rule for businesses, including but not limited to the costs of equipment, supplies, labor and administration." Or Laws 1987, ch 861, Sec. 1. This is a significant change. State agencies must now consider a wide range of economic impacts including but not limited to the direct costs of complying with the proposed rules or rule changes. Also, the 1987 legislature eliminated the ability of the agency to make a corrected filing. Or Laws 1987, ch 861 Sec 2. Further, the 1987 session repealed the rule that stated a rule could not be declared invalid because a fiscal impact statement was insufficient or inadequate. Or Law 1987, ch 861, Sec. 3.

It is generally held that the Oregon Legislature Assembly has focused on protection of Oregon Business, particularly small business, from harsh agency rules and agendas that may be fiscally devastating or result in bankruptcy with the subsequent loss of jobs and tax revenues. Agencies are counselled to submit well-prepared and detailed fiscal impact statements.

RE: Written Comments
Proposed UST Cleanup Rule Amendments
OAR Chapter 340, Division 122
Investigations for Soil and Groundwater Cleanup

The Fiscal and Economic Impact Statement contained in the proposed rule package needs to be further developed and consider all available information. It is opined that the Department has not provided an adequate assessment of the economic impact on Oregon business and the regulated community. The fiscal economic impact statement does not justify the need for the proposed expansive and fiscally Draconian rules.

It is forwarded that the impact statement misstates that the "additional costs will be mitigated somewhat by decreased Department oversight costs due to the availability of clear standards and a delineated process to follow." At this time 96-98% (DEQ statistics) of UST cleanups are paid by private individuals. The costs associated with these small and large cleanups, including legal, service provider and consultant fees, are paid by the property owner, tank owner or tank operator.

The **current rules provide adequate flexibility** for the consultant to exercise professional guidance to organized and supervise the cleanup and try to do so in a manner that is cost effect. It is our opinion that the **current rules do not need modification** as they are practicable, implementable and provide cost effective flexibility.

Only a scintilla of information is provided on the Department's economic assessment and the impact to small business in Oregon. The fiscal and economic impact statement does not meet the requirements of ORS 183.540, Reduction of economic impact on small business. It is opined that there is a significant adverse effect upon small business. Consistent with protection of health an safety small business can be exempted from these rules by using existing requirements and the rules as currently drafted. It is forwarded that, not adopting the proposed changes as written can reduce the economic impact on small business and not jeopardize public health, safety or the environment.

For reasons 2 and 3 it is opined that upon judicial review, the court of appeals could find that the proposed rules exceed statutory authority and were adopted without compliance with applicable rulemaking procedures. A court would appear to have no choice but to set aside an agency rule if the agency fails to follow applicable procedures - such as in the instant case.

RE: Written Comments
Proposed UST Cleanup Rule Amendments
OAR Chapter 340, Division 122
Investigations for Soil and Groundwater Cleanup

Closing.

It is recommended that the Environmental Quality Commission delay adoption of the rules, require a more detailed study of the fiscal impacts on Oregon business and in particular the impact on small business. It is recommended that the Department appoint an independent advisory committee to analyze the fiscal impacts of the rules and prepare recommendations on their findings and the need for rule modifications or exemptions. This committee should include a member from the OPMA as well as the regulated community and technical consultants and service providers.

It is suggested that it would be premature to have the proposed rules placed before the EQC for adoption. The issues presented appear to make a persuasive argument that the public would be best served by the Department withdrawing the proposed rules until these matters have been resolved. At a later date, the Department can request authorization to proceed with public hearing on revised rule amendments if sufficient justification is demonstrated.

I would be pleased to discuss these comments with Department staff or the Environmental Quality Commissions. As always, it is a pleasure working with Department staff. If you have any questions, or if I can be of assistance in any way, please do not hesitate to call.

Respectfully submitted.

David H. Couch

cc. Henry Lorenzen, EQC
Anne W. Squier, EQC
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851 S. W. SIXTH AVENUE, SUITE 1500
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TELEPHONE (503) 224-6440

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†† ADMITTED IN OREGON AND CALIFORNIA
** RESIDENT, BEND OFFICE

January 30, 1992

Mr. Alan D. Kiphut
Department of Environmental Quality
Environmental Cleanup Section
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, OR 97204

Re: Comments on Proposed Amendments to OAR 340-122-205 to 360; LUST Groundwater Cleanup Standards

Dear Mr. Kiphut:

I offer the following comments from the perspective of a lawyer whose clients must foot the bill for UST cleanup involving groundwater impacts.

1. The Standards for PAHs, EDB, EDC and Lead are Based on Inadequate Data. The studies supporting these standards do not appear to be based on laboratory experiments consistent with actual groundwater conditions in the field. Conclusions drawn from such experiments would never stand up in court.

2. The Standards for PAHs, EDB and EDC Have Not Been Shown to Be Consistent With Standards in Other States. The perceived need for these standards is based, in part, on the assumption that they would be consistent with the standards and practices in other states, including Washington. I can only speak to the situation in Washington. In my experience, the DOE does not generally require groundwater analysis

for PAHs, EDB or EDC. Further study seems to be needed before it would be safe to characterize the standards of other states.

3. Quarterly Sampling For A Full Annual Cycle is Not Always Warranted. In my limited experience, quarterly sampling can be quite useful or wasteful, depending on initial sampling results and site-specific conditions. To mandate quarterly sampling as a general proposition is regulatory overkill.

Conclusion

Further study of the rules and the underlying data is warranted. This should be structured to accommodate the views of UST owners and operators and environmental consultants so as to develop a more cost-effective package.

Very truly yours,

John C. Cahalan

JCC:gib
cc: Kurt Burkholder

(JCC\DCA9-999.015)

From: Tom Ferrero, Certified Engineering Geologist
Ferrero Geologic
340 Avery Street
Ashland, Oregon 97520

To: Oregon DEQ
811 SW Sixth Avenue
Portland, Oregon 97204

Date: 1/23/92

Subject: Petroleum UST clean-up rule amendments

It is in the interest of public safety that there is complete and accurate recording of subsurface hydrologic and geologic data at each UST clean-up site. Oregon professional licensing codes require that evaluations and judgements relating to subsurface soil, rock and groundwater be performed by registered geologists, certified engineering geologists or registered engineers (with soil and rock mechanics or environmental engineering expertise). Therefore I would suggest that the DEQ insert the following amendment to the UST clean-up rules, applying to subsurface investigation, monitoring and clean-up. This wording is very similar to that used in the California UST rules.

Report Requirements

All work and reports which require geologic or engineering evaluations and/or judgements must be performed under the direction of an appropriately registered or certified professional. A professional engineer or geologist shall only do work related to UST investigation, monitoring and clean-up if he/she is by education and/or experience fully competent and proficient in applicable specialties of geology or engineering. A statement of the geologist's or engineer's qualifications must be included in all reports.

Initial tank removal and sampling do not require such expertise. Soil, rock, groundwater and contamination logging and mapping from open excavations, bore holes and monitoring wells, as well as judgements based on that data do require such expertise.

The DEQ would simplify their job if they would be less specific about investigation, monitoring and clean-up methods and more specific about who takes the responsibility. Registered and certified professionals (geologists and engineers) are trained, tested and licensed to determine the best investigation and monitoring methods for each site. Why not take advantage of

that expertise? I believe that it is in the public interest to do so.

The DEQ's attempt to create fail-safe methods for investigation, monitoring and clean-up is in itself a professional judgement. If a property owner or agent complied with all of the rules, and a contamination related problem still occurred, the DEQ could be liable. This requires that the methods rules be extremely stringent in order to protect the state. This results in an undue financial burden for property owners with simple contamination situations that do not require such stringent measures. Also, the financial burden to the state (and taxpayers) of administering and enforcing such stringent rules is excessive.

All of these problems would be reduced or eliminated by requiring appropriately licensed professionals with applicable experience to supervise and take responsibility for subsurface investigation, monitoring and clean-up of soil, rock and groundwater at UST clean-up sites.

Sincerely,

Tom Ferrero

P.O. BOX 23635, EUGENE, OR. 97402
PHONE: (503)-686-1227

GEOLOGIC
ENVIRONMENTAL
MINERAL RESOURCE
CONSULTING, INC.

January 28, 1992

Mr. Brooks Koenig
Department of Environmental Quality
811 S. W. Sixth Ave.
Portland, OR. 97204

Dear Brooks,

I presented a statement at the DEQ hearing in Eugene (January 22, 1992) and I wanted to follow up with some written comments. The analyses for PAH's, total lead, and EDB/EDC are the main areas of our concern.

The PAH's listed in the cleanup guidelines have very low solubilities in water. The only listed constituent with significant solubility is Naphthalene (about 30,000 ppb solubility in clean water at room temperature). The other listed constituents have solubilities ranging from 3 ppb to 2,000 ppb. The listed cleanup levels for Fluoranthene, and Pyrene are greater than their respective solubilities in distilled water, therefore from a practical standpoint these cleanup levels are meaningless. It has been my experience that the PAH's are very rarely detected and often are not detected even in situations where free product is floating on the groundwater. A survey of two Oregon laboratories indicated that they see about a five percent detection rate in samples analyzed for PAH's. It is far more cost effective to analyze for TPH as a screen for PAH's and far less expensive. The DEQ is currently requesting PAH's in cases where diesel or similar product is present, however a TPH analysis may be more accurate, protective, and provide more information for the cost. I would encourage the cleanup section to make a cost benefit analysis of the proposed testing for PAH's.

The testing for total lead at UST sites has, I'm sure generated a lot of sites which "exceed" the cleanup criterion for lead in groundwater. The reason for this is not hard to determine. Oregon soils typically contain significant concentrations of lead. The analysis of unfiltered samples for total lead confirms the fact that lead exists in detectable quantities in Oregon soils. Lab filtering of samples would provide more useful data.

The testing for EDB/EDC seems arbitrary at best. There are many additives to gasoline which vary by refiner. The total volume in gasoline of these additives is very small. Detections of these compounds will only occur when BTEX levels are extremely high, which will have already triggered regulatory action. On the East Coast, sampling for MTBE was initiated because of the extreme solubility of MTBE in water. This compound provided a

tracer or precursor of the arrival of a gasoline plume. I have not been able to locate much data on EDB/EDC but I have seen no rationalization for choosing this compound. A survey of two Oregon labs indicates that the detection rate for EDB/EDC may be less than one per-cent of all samples analyzed. Once again this is not a cost effective way to obtain useful information about UST cleanup sites.

While I support the effort to develop cleanup standards, I think it is important to utilize information developed by other states to avoid re-inventing the wheel. I also think a cost benefit analysis should be applied to new analyses and those which deliver little useful information should be avoided. As a groundwater scientist, I believe there are certainly more cost effective ways to delineate plumes of petroleum contamination than to require more analyses which have exceptionally low detection rates. The money spent on these analyses, not a trivial sum, should be spent cleaning up sites.

Should you have any questions, or need additional information, you may contact me at 686-1227.

Sincerely,
GEM Consulting, Inc.

Steve Newcomb, RPG
President

GeoEngineers

Geotechnical,
Geoenvironmental and
Geologic Services

January 31, 1992

Oregon Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 Southwest Sixth Avenue
Portland, Oregon 97204

Attention: Mr. Alan D. Kiphut

Comments on Proposed Rule Changes
UST Cleanup Rules
OAR 340-122-205 through 340-122-360

INTRODUCTION AND BACKGROUND

GeoEngineers, Inc. appreciates the opportunity to comment on changes proposed by DEQ to the UST cleanup rules. In general, we agree with the concept of the proposed rule changes and agree that adoption of definitive numerical standards for ground water will streamline the cleanup process. Furthermore, we recognize that the establishment of numerical cleanup standards is a very difficult endeavor; especially since the scientific community is yet unable to determine actual health risks to human populations that may have periodic or continuous exposures to very low concentrations of environmental contaminants. We do, however, have several concerns regarding justification and the practicability of the proposed rule changes.

Our general opinion regarding the proposed rule changes is that risks actually posed by gasoline additives and PAHs (polycyclic aromatic hydrocarbons) are negligible from fuel-derived contamination of ground water. We believe that ground water cleanup standards at UST sites that are limited to BETX (benzene, ethylbenzene, toluene, xylenes) are sufficiently protective without including testing and monitoring for fuel additives and PAHs.

The costs associated with owner liability, testing and remediation of these trace-level constituents of fuel products are not justified by the benefits received. Contrary to the belief of many, we all pay for the costs of environmental cleanup, not just the "polluter." Environmental costs result in higher costs of goods and services, such as fuel and automotive repairs. In addition, where responsible parties go bankrupt or lay off employees because of inability to pay for cleanups or to secure loans on

GeoEngineers, Inc.
7504 SW Bridgeport Road
Portland, OR 97224
Telephone (503) 624-9274
Fax (503) 620-5940

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their property, we experience increased societal costs associated with publicly funded cleanups and unemployment claims. It only makes sense to spend our cleanup money wisely and not waste money unnecessarily for sites that do not represent an environmental risk.

GASOLINE ADDITIVES

The proposed rules require testing of ground water for lead, EDB (ethylene dibromide) and EDC (ethylene dichloride) for sites with gasoline releases. Our firm's experience in testing for lead at UST sites in Oregon and Washington has resulted in occasional detections of lead at concentrations greater than the proposed DEQ regulatory level of 5 ppb (parts per billion). However, detections are rare when filtered samples are analyzed, and the detections are sporadic. We recommend that samples for lead analysis be filtered to remove the biases introduced by suspended sediment that may be included in the water sample.

EDB analyses are currently recommended (not required) for UST sites in Washington with a gasoline release. We have occasionally detected EDB and EDC at concentrations greater than the proposed DEQ cleanup levels for these compounds at UST sites. When detected, EDB and EDC concentrations are typically two orders of magnitude or more less that BETX concentrations in the same samples. Because EDB and EDC are typically present at very low concentrations in comparison to BETX, and because EDB and EDC typically would be remediated along with cleanup actions for BETX, it is our opinion that monitoring BETX concentrations would be sufficient at UST sites. In addition, widespread agricultural use of soil fumigants containing EDB may result in detections of EDB unrelated to fuel spills. We recommend dropping requirements for these analyses completely.

POLYCYCLIC AROMATIC HYDROCARBONS

The proposed rules would require testing for PAHs at sites with ground water contamination by diesel and heavier fuels. When compared to gasoline, diesel and heavier fuels are very innocuous in the environment and have a relatively low toxicity even at high concentrations. We are concerned that the introduction of the proposed cleanup levels for PAHs will result in the detection of non-carcinogenic PAHs at large numbers of sites. This will trigger requirements for ground water remediation at diesel-contaminated sites where no actual hazard exists. Typical air stripping technologies are ineffective for PAHs, resulting in a necessity to implement more expensive treatment methods such as carbon filtration or chemical oxidation.

PAHs are present in trace concentrations in diesel and heavier petroleum products; however, carcinogenic PAHs are rarely associated with fuels, and only in negligible concentrations. DEQ cites the research of Thomas and Delfino in Ground Water Monitoring Review (Fall, 1991) as an example of the frequent presence of PAHs in ground water. However, their research does not present any evidence that carcinogenic PAHs are common contaminants from fuel spills. In addition, carcinogenic PAHs have very low solubilities in water (0.5 µg/l to 62 µg/l) and are very immobile in the aqueous subsurface environment. Thus, we feel that they pose little risk from exposure via ground water at fuel spill sites.

EPA has published tentative MCLs (maximum contaminant levels) for carcinogenic PAHs in drinking water. These tentative MCLs are two orders of magnitude greater than DEQ's proposed cleanup standards for carcinogenic PAHs in ground water. We believe that establishing PAH ground water standards that are several orders of magnitude lower than tentative EPA drinking water standards is not sound or justifiable policy. There are many human-caused and natural sources of carcinogenic PAHs that place humans at a significantly greater risk of exposure than possible trace PAH concentrations related to fuel spills. Researchers have found carcinogenic PAHs at concentrations well in excess of both EPA's tentative MCLs and DEQ's proposed ground water cleanup standards in a variety of sources. For example, attached is a table listing benzo(a)pyrene (a common carcinogenic PAH) concentrations in a number of cooked and uncooked foods. We feel that it is unreasonable to establish ground water cleanup standards at LUST sites that are far more stringent than concentrations allowed in water and foods that are directly consumed by humans.

Other significant sources of PAHs include internal combustion engine emissions, roadbed and asphalt leachate, runoff containing oil and grease, forest fires, tobacco and natural bacteria. We are concerned that the very stringent cleanup guidelines for carcinogenic PAHs proposed by DEQ may result in sporadic detections of PAHs that are unrelated to fuel spills. Furthermore, because the proposed concentrations are so low, and many other potential sources of PAHs exist, we feel that establishment of background concentrations at sites may be difficult and arbitrary.

The PQL (practical quantitation limit) concept of PAH cleanup levels appears to us to be unworkable. The PQL is a "moving target" and would result in continued uncertainties whether a site is "clean" in the future. For instance, if ground water testing results in no detection for carcinogenic PAHs, and future technology results in lower detection limits after a site remediation has been completed, would additional compliance testing be needed in the future? Also, under the proposed regulations, it

is likely that many additional sites will remain on permanent monitoring status because of progressive lowering of the PQLs, and the difficulty in treating ground water with highly adsorptive and low mobility compounds such as PAHs. In our opinion, this places an unreasonable financial burden on site owners.

We recommend that the requirements for PAH testing be eliminated from the rules. If PAH testing is required, we strongly recommend dropping all cleanup standards that are referenced to PQLs. In addition, we believe that any PAH standards should not be lower than EPA's tentative MCLs.

COMPLIANCE MONITORING POINTS

OAR 340-122-255(1) requires a minimum of one hydraulically upgradient and two downgradient monitoring wells. OAR 340-122-255(3) states that all sampling events for compliance evaluation must include the proposed addition of PAHs, EDB, EDC and total lead analytical testing. OAR 340-122-255(6) states that compliance monitoring points shall define the lateral and vertical boundary of the contamination and shall be established in an approved CAP (corrective action plan).

Attachment C to the proposed ground water cleanup standards discusses the anticipated additional expenditures associated with the proposed rules, limited to the scope of analytical testing of monitoring wells. The example given assumes three monitoring wells. The number of monitor wells installed at a petroleum-impacted site rarely, if ever, is limited to three monitor wells. We request that DEQ clarify whether the additional testing contained in the proposed rules applies to all of the monitor wells completed at a site, or just to the "minimum of three" designated compliance points at a site.

CONCLUSION

DEQ has stated that the purpose of these proposed standards are to ensure consistent cleanups, to provide clear cleanup goals to facility owners/operators and to facilitate the process for the Department and facility owner/operators. We believe that adoption of the proposed standards for PAHs will have the opposite effect intended. Adoption will result in a significant addition to the work load of an already overloaded DEQ staff and added expense to taxpayers and responsible parties. We believe that the major financial impact of proposed gasoline additive and PAH cleanup standards will be potentially lower property values, long-term financial liability for owners of sites that are "clean" except for trace

GeoEngineers

gasoline additive and PAH concentrations, and the inability of property owners to sell or secure loans against their properties. The return will be negligible reductions in health risks.

Cleanups at both PAH and non-PAH sites will inevitably proceed at a slower, rather than faster, rate because of the additional work load for regulators and consultants, changing cleanup targets, dilution of resources and added financial burdens. All of these effects contradict the stated objectives of DEQ's proposed ground water cleanup guidelines. In our opinion, adoption of the proposed standards for PAHs, EDB, EDC and total lead is not worth the cost or time for responsible parties, financial institutions, consultants, DEQ and the residents of Oregon.

We appreciate your consideration of our comments and suggestions.

Yours very truly,

GeoEngineers, Inc.

Walter C. Burt
Hydrogeologist

Dixie A. Simon, P.E.
Project Engineer

Charles E. Lauck
Project Geologist

Patrick J. Sullivan, R.G.
Project Geologist

Nancy A. East, R.G.
Geologist

Kelly D. Uhacz
Staff Engineer

Bruce A. Heine
Geologist

George P. Saunders, P.E.
Project Engineer

Robert E. Belding, R.G.
Project Geologist

Brad D. Baird
Environmental Engineer

Reid F. Kenner
Senior Engineering Technician

I-52

Stacey A. Moore, R.G.
Geologist

David W. Cobrain
Staff Geologist

Karen A. Demsey
Staff Geologist

Scott E. Widness, P.E.
Geological Engineer/Hydrogeologist

TYPICAL BENZO(a) PYRENE CONCENTRATIONS[1]

Type of Food	Benzo(a)pyrene (ppb)
Meat	
Cooked Hamburger	2.7
Smoked Meat (mean of 47 products)	0.225
Barbecued Ribs	6 - 10
Charcoal Broiled Beef Steak	0.6 - 8
Charcoal Broiled Bratwurst	8 - 12
Margarine	0.4 - 3.7
Coffee	0.2 - 6.0
Grains (barley, rye, wheat)	0.2 - 1.1
Vegetables	
Lettuce	0.2 - 12.8
Leek	12.6 - 24.5
Peeled Carrots	0.07 - 0.14
Fresh Fruits (mean)	0.03

Proposed DEQ ground water cleanup standard for Benzo(a)pyrene is 0.003 ppb.

Notes:
[1]Benzo(a)pyrene concentrations in food from: Verschueren, Karel, Handbook of Environmental Data on Organic Chemicals, 2nd Edition, Van Nostrand Reinhold, New York, 1983.
ppb = parts per billion

GULL INDUSTRIES, INC. • 3404 FOURTH AVENUE SOUTH • P.O. BOX 24687 • SEATTLE, WASHINGTON 98124 • (206) 624-5900

January 31, 1992

Oregon Department of Environmental Quality
Attn: Marcie Murphy
811 S.W. 6th Avenue
Portland, OR 97204

Re: Proposed Amendments to UST Cleanup Rules
OAR 340-122-205 through 340-122-360

Dear Ms. Murphy:

This is to object to the proposed amendments to the existing Underground Storage Tank Cleanup Rules, which would establish numeric groundwater cleanup standards for petroleum releases and more stringent sampling.

The proposed standards go far beyond what is considered reasonable by our independent remediation engineers, and nothing has been shown to indicate that the increased amount of testing would decrease the risk to the environment. On the contrary, the increased testing will merely reduce the amount of funds available for voluntary, independent cleanups by smaller gasoline companies such as ourselves.

We urge DEQ to withdraw these proposed regulations. Thank you.

Sincerely,

William T. Vivian (jmb)

William T. Vivian
Vice President-Development

WTV/jmb

cc: John Newby, Applied Geotechnology Inc.

Hawk Oil Company

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

January 21,1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, Oregon 97204

I was very alarmed to read your proposed rules regarding groundwater cleanup standards for petroleum contamination. I was also amazed at the apparent effort to rush these amendments through. Interested parties were certainly not given sufficient notice, to allow them to adequately review the proposed standards, which are extremely complex for a layman. The five 7:00 p.m. hearings and written comment dates were very poorly communicated. It also seems that one section of DEQ is unaware of the tremendous efforts and concerns of other sections.

Many members of the petroleum industry are already working very hard with DEQ, on both cleanups and underground fuel system upgrades.

Oregon is one of only fourteen states without an EPA approved cleanup bill, and we have none in site. The Oregon Petroleum Marketers Association was the primary support for DEQ's S.B.1215, and we still are assisting DEQ's defense of the tank bill, against the Oregon Auto Club. And our members will have the greatest financial burden resulting from 1215. The majors have completed most of their upgrades, for they had the available funding. Oregon plans to provide the greatest level of assistance to the single station operator. It is the distributors who will have the greatest debt load and financial hardship of all. Yet we are the ones who, provided the most support for DEQ's tank bill. If 1215 survives the Oregon Supreme Court, we will still have little to no assistance with cleanups, for 1215 is essentially aimed at upgrading existing underground fuel systems. Obviously, the vast majority of cleanups will be forced into the next three years, which is far more demanding than any other state. We now read, that this same DEQ we have been trying to cooperate with, is trying to establish the most severe groundwater standards in the nation.

Petroleum marketers are concerned about our environment also. We have assumed numerous facilities from folks that were totally unaware of the potential problems. In reality, all Oregonians should share these costs. We have long enjoyed the availability of petroleum, and these unknown costs were not passed along before.

There are numerous concerns with the groundwater standards and rules.

First, the standards seem far too severe. Apparently, these numbers were backed into from some assumed health base criteria. As pointed out by the American Ground Water Trust and others, there exists substantial questions regarding even risk assessment.

Second, it seems very clear that there should be a groundwater classification system. As we all know from the soil matrix system, substantial amounts of Oregon's groundwater is not used for human consumption. It is totally unreasonable to demand that these waters be cleaned to or above federal drinking water standards. Some of this water is not potable now, for non petroleum reasons.

There are even questions about some of the compounds being analized. For instance, lead could exist naturally at a given site. Will this be a filtered sample, to measure soluable lead only? Why was Toluene dropped to 1,000 from 2,000 ppb? How many of these compounds could be from non petroleum sources? Instead of publishing carcinogenic PAH levels that can't even be measured today, why not wait for the EPA to establish Federal standards? Certainly they can afford to analize these issues more thoroughly than Oregon.

Even some of the policies seem questionable. The sampling requirements are unclear. The quarterly samples may well be too frequent and clearly not all monitoring wells at a site should be followed. Quarterly water elevations would add tremendous costs. Why analize both top and bottom levels? In nearly all cases, we would be concerned with the top only. Follow-up tests should only be for compounds that were originally found.

Once again, Oregon seems to want to lead the nation in regulating away the collection of waste oil, which EPA recognizes will simply encourage more folks to dump their waste oil down the drain.

There seems to be far more questions to review, by folks with more technical knowledge than the typical petroleum marketer. I'm sure the major oil companies would provide some assistance.

We are quite sure that your fiscal and economic impact statement is far too conservative. Possibly the costs of collections and quarterly survey costs were not included. Even assuming just three monitoring wells, would not fit numerous sites.

I realize these rules allow for DEQ to consider less stringent clean-up levels for a particular site. However, established standards are very difficult and costly to bend, and again, all the burden falls on the tank owner.

Clearly, DEQ and the petroleum industry must work together, to try to cleanup these historical problems as quickly and practical as possible. It is certainly not in Oregon's best interest to further jeopardize the financial survival of their distributors, who supply approximately half of Oregon's fuel. Most distributors will have several cleanups or more. Basically, they can't borrow money for cleanups. I doubt that DEQ wants to break the operation on the first cleanup...or the last.

I know all tank owners would join me in strongly requesting that DEQ greatly slow their considerations of these groundwater cleanup standards and rules, and allow for substantial additional review and hearings. It would be extremely unfair to all, to pass this matter to the EQC for final adoption at this time.

Sincerely,

Mike Hawkins

MH:gl

cc: Mr. Fred Hansen
Mr. Richard Reiter
Mr. Byron Peterson
OPMA

HUGHES
ANALYTICAL LABORATORY

January 29, 1992

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED
JAN 31 1992
ENVIRONMENTAL CLEANUP DIVISION

Mr. Alan Kiphut
Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, OR 97204

Dear Mr. Kiphut:

Please find enclosed my comments regarding the **Proposed Amendments To UST Cleanup Rules, OAR 340-122-205 through 340-122-360.** These comments focus on the analytical methods for Groundwater Cleanup (340-122-255). The information I am submitting is in support of analyzing for Polynuclear Aromatic Hydrocarbons (PAHs) by means of EPA Method 8310.

I am also enclosing some background information about myself and my expertise in this area. I feel the information submitted will be of value to you in determining the best available method for PAH analysis of groundwater. My comments are based on the work we have done at Hughes Analytical in the past six months, evaluating, validating and using this method in our lab.

I appreciate the opportunity to participate in the decision making process. If there is anything else I can do please do not hesitate to call. I can be reached at 254-4049.

Sincerely,

Kim Hughes

Kim Hughes
President

I-59

4110 NE 122nd ▪ Suite 130 ▪ Portland, Oregon 97230 ▪ (503) 254-4049 ▪ FAX (503) 253-9019

DEQ NOTE: The supporting documentation submitted by Kim Hughes of Hughes Analytical Laboratory is found in Attachment J and is on file at the Department and available upon request.

January 29, 1992

Mr. Alan Kipkut
Program Technician, UST Cleanup Section
Oregon Dept. of Environmental Quality
Environmental Cleanup Division
811 SW 6th Avenue
Portland OR 97204

Dear Alan: Re: Environmental Cleanup Program

Concerning our conversation at your January 15th meeting in Portland, I am sending you this letter to express my views on the current program. I also am enclosing copies of two newspaper articles which have appeared within the past week which pertain to my concerns.

First of all I found it appalling that the majority of the people at this meeting were from the service sector--the ones who will benefit monetarily from the misfortune of the small retail dealers. DEQ's regulations lack a critical element, and that is common sense. It is impossible to expect small gasoline dealers to correct the results of many years of what we now know to be lax practices. A good majority of them inherited these liabilities by buying their stations years prior. Often there are only small amounts of contamination and in most cases the businesses are located in cities with public water systems. They are far enough from navigable waters or ground sources not to present a risk.

Those who are responsible for writing these rules won't see their incomes directly affected by the businesses and employees they are putting out of work. However, with an economy that is currently in shambles, putting people out of business is going to show up as lost revenue in the form of payroll and property taxes, and will add to an already overtaxed unemployment system. It would seem to me that you should look at these policies and ask yourself if it is reasonable to inflict such hardships on small operators.

Do not misunderstand me; I believe we do need to clean up our environment but we have to be reasonable too. There are many double standards. Why is it that at any of these station sites that are in the process of cleaning up, the pollution always seems to stop at the state highway? Isn't it odd how contamination can stop in a straight line? If pollution was insignificant enough to let go at this boundary, why was it necessary to dig up enormous amounts of soil right next to it?

Contaminants of various types are currently being discharged into rivers by large companies who can buy discharge permits which make it legal and somehow environmentally OK. I would argue that this is more damaging than some of these gasoline station sites.

Maybe a good solution would be to assess these sites individually to determine if they are in a location that might be safe left as is. Perhaps allowing them to upgrade to new tanks without expensive monitoring systems, would help keep these dealers in business. There are a lot of good operators who could use gauging and inventory control to monitor these sites without the need for costly electronic systems.

Many small dealers are located within 9 miles of an incorporated city and could not qualify for the lowest interest program. You have failed to realize that these small dealers (1 to 12 tanks) cannot be classified with the 1 to 99 tank dealers. A smaller dealer does not have the volume or buying contracts and cannot compete with the pricing that bigger dealers can hold. A station owner who sells 20,000 to 30,000 gallons a month cannot sell for the same price as the larger dealer who sells 100,000 gallons a month.

Maybe a volume basis for the financial assistance program would be a fairer way to finance these small dealers, with the lower volume stations getting the lowest interest rates and best financial plan. Also sites that do small volumes might be allowed to monitor with manual gauging and inventory control. If accurate records are kept, I feel this would be adequate. A dealer, given this opportunity, could become a better business operator in the long run.

Unless it is the DEQ's intention to put small dealers out of business, the new laws need to reflect some reason and logic with regard to individual circumstances. Even with the financial assistance you may offer, it will not be adequate for them to obtain bank financing for the remainder. Banks are afraid of the liability risks at these sites and are not going to finance a small dealer who is questionable at being able to repay the loan.

Thank you for the opportunity to express my opinions and your consideration of them. I hope you will share this letter with anyone in your organization who is involved with this issue.

Very truly yours,

Dennis G. Moreland
President/Owner, Moreland Oil Co.

DM/am
cc: Brooks Koenig

I-62

Mac businessman sues over gas tank 'nightmare'

❒ Dream spoiled by costs to remove petroleum tanks

By JEREMY CONANT
N-R Staff Writer

What started out as an $8,000 project to remove three petroleum storage tanks from their property has turned into a $100,000-plus nightmare — and a lawsuit — for a McMinnville businessman and his partner.

Jim McDonough and partner Dale Schumacher bought a defunct service station at the corner of Highway 99W and Highway 18 in 1977. They leased the property to several businesses over the years, and recently began plans to develop the property.

They dreamed of remodeling the 1.2-acre lot into a nice Century 21 real estate office and a few storage units. They dreamed of selling the property after a few years and retiring. But they never dreamed they'd run into the problems they now face.

McDonough said he received a letter a few years ago informing him that underground petroleum storage tanks on the property would have to be removed — about the time the Environmental Protection Agency was adopting new stringent regulations for such tanks.

Figuring the tanks would have to be out in order for development to take place, McDonough sought a contractor's bid for removal of the tanks. He got a bid of $8,000, possibly less if the ground surrounding the tanks showed no contamination. He considered that the worst-case scenario.

Digging started in July 1990.

What the contractor found was badly contaminated dirt from leaky storage tanks — a lot of it.

The contractor also found two more tanks that McDonough did not know about. They too leaked gasoline into the ground. And worse yet, there was a smaller waste oil tank and a heating fuel tank in the building which also had to be removed.

In the end, the contractor had to dig a hole 20 times larger than expected and had to remove seven tanks instead of three.

And McDonough had to have the contaminated dirt hauled to Hillsboro Landfill. His first contract with the landfill was for $17.50 a yard for the dirt. But when more digging had to be done — and consequently more dirt disposed — the price doubled, to $35 a yard. McDonough said he figures the contractor dug about 1,000 yards of dirt.

The hole on the property was filled in December with new, clean dirt. But DEQ has not cleared the property for development, McDonough said, and may require installation of monitoring devices.

"If that happens we can pretty well kiss this project goodbye," he said. McDonough said he and his partners will not be able to find any bank willing to lend on property with potential for more contamination problems.

The final cost, to this point, for cleanup of the contaminated dirt has been about $80,000. And that's just what McDonough's suing for, and attorney's fees.

He has filed a lawsuit naming three parties as defendants; H.P. Mahon, who previously owned the property, and Arco and Union oil companies who both ran gas station operations on the property.

"The law says whoever puts these things in the ground is responsible to take them out," McDonough said, "but we're having a difficult time making these people understand that."

McDonough says his lawsuit is light when compared to another he knows of. A man in a similar situation in California is suing Arco for $100 million.

"We just want to get our damn money back," McDonough said. "Our attorney says there's no guarantee that will happen, despite what the law says. They'll accuse us of being negligent I guess.

"We didn't know anything about tanks. We just assumed they weren't leaking and all you had to do was take them out."

By the time the ordeal is over, he and his partner expects to have spent more than $100,000.

McDonough has people working in the undeveloped offices on the property, developers working on plans for a new motel. But now he plays a waiting game.

While his taxes on the property did drop some last year, they did not fall as dramatically as the property value has since the discovery of the contaminated dirt.

It could be a long period of time before his case is assigned and a court date opened for consideration of the suit. Meanwhile, his plans for developing the property will remain on hold until DEQ gives him the thumbs up for his project. Even then, he said, it may be difficult to get the loan he needs to complete the project that was supposed to lead into a pleasant retirement.

"We just want to get our damn money back. Our attorney says there's no guarantee that will happen, despite what the law says."
Jim McDonough

I-63

Last gas station in St. Paul closes

The Associated Press

ST. PAUL — The only gas station in this tiny Marion County town settled in the 1840s has closed, leaving it a little more isolated economically, a little farther from the rest of the world.

Other towns will follow when their gas stations close because it is just too costly to replace underground fuel storage tanks to meet environmental regulations.

"There are certain things that make a little town," says Bill Dolan, partner in a hardware and farm equipment firm that employs 50 persons in St. Paul. "If you don't have a grocery store, a bank, a restaurant, a gas station, you don't have everything it takes to be a town."

Dolan says he provided $3,000 a month worth of trade to the town's gas station over the past year, hoping to help it survive. But it wasn't enough.

The closure had been announced in advance, but many St. Paul residents discovered it only when they drove to the pumps of the Wilco station.

"Nobody is happy about it," says Mayor Joe McKay, descendant of a pioneer St. Paul family. "I talked to one old gentleman who doesn't drive much — just enough to get around town. He doesn't know what he's going to do."

The environmental laws were passed to reduce serious ground water pollution caused by leaking underground tanks around the nation.

Oregon's regulations will force replacement of most of the state's underground gasoline tanks by 1998, costing a small station as much as $100,000.

Economic pressure already is squeezing out small independent stations in favor of outlets owned and operated by the oil companies. Even then, only the highest volume stations survive.

"There will be some stations closing," says Richard Reiter, a state Department of Environmental Quality official who oversees tank enforcement. "Some of these little stations only pump 10,000 gallons a month. They may make $1,500 a month in gross profit — before they pay the rent and other expenses."

A loan program may help. Financed by a 1.1 cent per gallon gasoline tax approved by the Legislature, the program would pay up to 80 percent of a small station's tank replacement cost.

But the loan plan has been blocked temporarily by a lawsuit filed by the Automobile Club of Oregon, which objects to a gas tax that won't be directed at improving the state's roads.

Even if they get the loan, many stations may have trouble paying it off, owners and officials say.

49-I

P.O. BOX 1920
GRESHAM, OREGON 97030
665-2188

Mt. Hood Oil Co.

PORTLAND • 257-0076

P.O. BOX 277
ESTACADA, OREGON 97023
630-3276

February 4, 1992

Department of Environmental Quality
Environmental Cleanup Division
U.S.T. Cleanup Section
811 S.W. 6th Ave.
Portland, OR 97204

Subject: Amendments to Groundwater Cleanup Standards at Leaking U.S.T. Sites.

Department of Environmental Quality:

We in the petroleum industry need to make you aware of the costs your rules have imposed on our industry without sufficient regard as to our ability or our customer's ability to afford the costs you have mandated. Example: 10 years ago a small leaking underground heating oil tank could be opened up, cleaned and lined for approximately $650.00 total cost, including a 10 year guarantee. Under D.E.Q. mandated rules within the last 10 months a heating oil L.U.S.T. cleanup and tank replacement, cost $6,440.00 for cleanup and approximately $1,500.00 to replace the 675 gallon tank. Total cost, approximately $8,000.00 without any groundwater cleanup standards required.

It is now our understanding that new groundwater cleanup standards are proposed to include "lead, ethylene dibromide (EDB) and ethylene dichloride (EDC) as additional analytical parameters in groundwater cleanup standards.

According to the State of California L.U.F.T. Task Force Field Manual, because of the difficulties involved in discerning between organic lead and total lead, analysis for lead should only be used under certain site specific conditions. Such as where significant leaded gasoline leaks have occurred.

The appendix 1 of the State of California L.U.F.T. Field Manual indicates the concentration of EDB and EDC in gasoline, percent by weight, is extremely low in comparison to the percent by weight of Benzine and BTEX in gasoline.

I-65

In 90 groundwater monitoring wells tested by Bergeson - Boese & Associates, Inc. during the last quarter of 1991, lead above 5 ppb was detected in nearly every well sampled. In approximately 50 of those wells sampled no petroleum was detected. According to Bergeson - Boese & Associates, Inc. these 90 wells were sampled for EDB and EDC and they were found in only 3 wells at one site, according to their letter to the D.E.Q. dated 1/22/92.

The State of California's thorough study of petroleum fuels has lead the L.U.F.T. task force in their field manual to conclude and justify only requiring testing for total petroleum hydrocarbons (TPH) and volatile aromatic hydrocarbons (BTEX) at U.S.T. sites.

We want to suggest a more thorough review by the D.E.Q. of the State of California evidence and conclusion, including a delay in the proposed rule changes to give more time for study and additional hearings. We feel that we are close to being driven from the petroleum distribution field due to high cost of remediation and insurance ostensibly brought on by high costs of testing, cleanup and paperwork mandated for site cleanups. Unfortunately, in many instances, the costs are overkill and are causing an overkill among petroleum suppliers and other businesses.

Please give these issues a more thorough review toward keeping costs down and accomplishing cleanup of only what is absolutely necessary to maintain living standards in the environment.

Sincerely,

W. C. Felker

William C. Felker

NATIONAL CARDLOCK INC.

January 20, 1992

UST Cleanup Section
Department of Environmental Quality
811 SW Sixth Avenue
Portland, Oregon 97204-1390

PUBLIC COMMENT: AMENDMENTS TO GROUNDWATER CLEANUPS:

You are proposing an increase in the amount and types of testing of groundwater when the presence of petroleum products is suspected. The additional tests appear unnecessary because of the following:

1. The further confirmation that gasoline or diesel fuel being present is redundant. Once lead, toluene, xylene, etc. is detected we know gasoline has been introduced.

2. The cleanup of gasoline is the same whether or not PAHs, EDB, or EDC are present does not change cleanup procedures.

3. The industry is hard pressed to meet current testing standards financially. Why add more when not necessary.

4. Most testing and cleaning is done at locations where known product was stored and subsequently released. Once we know the ground water is impacted we can assume that all chemicals inherent in that product are present.

In any event, it appears that these amendments have been hastily conceived and that more time should be allowed to fully understand the necessity or importance of these additional tests proposed in your suggested amendments. These rules are extremely complex and we all need more time to review them.

Don Wilson
President

I-67

P.O. Box 1689, Albany, Oregon 97321 (503) 926-0208 • Nationwide 1-800-452-4129 • FAX (503) 926-4260

Oregon
OIL HEAT
COMMISSION
1-800-243-HEAT

January 30, 1992

Mr. Alan D. Kiphut
Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 SW Sixth Ave.
Portland, OR 97204

COMMENTS ON REVISIONS TO UNDERGROUND STORAGE TANK (UST) CLEANUP RULES (OAR 340-122-205 THROUGH -360) TO INCORPORATE GROUNDWATER CLEANUP STANDARDS

Dear Mr. Kiphut:

The Oregon Oil Heat Commission is pleased to present these comments to the Department on the revisions to the UST cleanup rules.

The Oregon Oil Heat Commission was created by the 1989 Oregon Legislature to assist home owners and businesses in paying for the cost of environmental cleanups when releases from heating oil tanks occur. The Environmental Protection Fund administered by the OHC is funded by a 1.25% assessment on the gross receipts of all heating oil sold in the state. Without this fund, homeowners would not be able or willing to pay the costs of cleaning up heating oil tank releases to the DEQ standards. DEQ field staff would have a difficult time convincing homeowners to understand the UST regulations - much less hiring qualified contractors, paying for analytical expenses, ensuring contaminated soil is removed to proper disposal sites, and filing the necessary reports and forms with the DEQ. Enforcement against individual property owners for not complying with complex environmental regulations can be difficult for DEQ.

We have analyzed the proposed rules with two goals in mind:

- Ensuring that cleanups of releases from underground storage tanks are protective of public health and the environment.

- Ensuring that cleanups are completed as cost-effectively as possible, reserving the largest amount of cleanup dollars for actual cleanup work - not for work which does not benefit the cleanup such as laboratory analytical costs, excess reporting or more detailed analysis than are necessary to make decisions.

SCOPE OF THE RULES

Residential heating oil tank cleanups are regulated by the same DEQ rules as those which govern larger petroleum tank cleanups, such as those at service stations or bulk plants. Where this may make sense from a regulatory point-of-view, it is often not practical in the field.

The majority of Oregon's heating oil tanks are in residential areas. These are generally 50 by 100 foot lots with the heating oil tank located at the back of the house. These sites are not accessible by mechanized earth moving equipment, drilling rigs, or other tools used to obtain soil profiles and install groundwater monitoring wells. Obtaining permission from adjacent property owners to drill wells in the neighborhood may not be possible, and wells on the affected site or local public access areas may not provide adequate information.

The OHC would like to work with DEQ staff in developing language which would allow some flexibility in the installation of monitoring wells in locations where it is not practical and where municipal water supply is available.

SETTING PROTECTIVE AND FEASIBLE STANDARDS

Additional information is needed from DEQ regarding the concentrations of PAH's found in actual field conditions during routine heating oil tank excavation. If PAH's are not of a concern, then they need not be monitored for - conserving additional dollars for cleanup activities.

OHC requests that DEQ forward to it the data which has been gathered indicating that PAH concentrations are found in routine heating oil tank excavations affecting groundwater. If there is not adequate field data to determine if PAH's may pose an environmental concern, OHC will gladly work with other petroleum trade associations and the DEQ to design and carry out

a scientifically valid study to determine if PAH's are a concern. Using good field information will ensure real environmental problems are being addressed by these rules.

If the information indicates that PAH standards are necessary, the OHC believes that environmental cleanup standards should be set which are both protective of public heath and the environment, and are feasible for the regulated community to meet. Setting Polynuclear Aromatic Hydrocarbon (PAH) standards at the calculated value far below the levels able to be detected in the most sophisticated analytical laboratories is not feasible.

Setting pollution control standards far below the levels able to be measured, and relying on a footnote in the regulations to state the REAL cleanup standard is poor public policy - misleading the public as to the pollution standards being set, and possibly alarming homeowners when groundwater cleanups are not accomplished to the part per trillion concentration. This section of the rule is of serious concern to OHC since our regulations require us to meet the cleanup requirements set by DEQ.

If PAH standards are necessary, they should be returned to the levels of the Practical Quantification Levels. These levels can be revised downward as the detection levels for the analytical equipment improve.

CLASSIFICATION OF STATEWIDE GROUNDWATER RESOURCES

Congruent with current state policy, the DEQ staff has proposed a single set of cleanup standards to be generally applicable to the entire state. (Proposed rule OAR 340-122-255(4) does allow higher standards to be set if a feasibility study is conducted).

The policy indicating that all groundwater of the state be protected as if it were drinking water was set many years ago. At that time, groundwater was thought to be relatively clean. Since then, a wealth of information has been gathered on groundwater quality throughout the state. Many areas of the state - particularly those in traditionally industrialized or commercialized areas - have existing ground pollution problems. Some areas of the state have naturally occurring conditions making the groundwater undrinkable. Setting the same groundwater cleanup standards for the Guild's Lake District of Northwest Portland and a rural area where private domestic wells are used for drinking water does not make sense. This policy of setting a single set of groundwater standards for the entire state diverts cleanup dollars (and DEQ staff time) away from the highest priority sites by diluting efforts in an attempt to treat the entire state the same.

The OHC would like the DEQ to consider setting staged groundwater cleanup standards which are based on actual environmental risk based on likely public health exposure.

ECONOMIC IMPACT OF THE RULES

The OHC has expended $1,163,881 to remediate environmental concerns from oil tank releases since starting its program in March, 1990. To date, nearly 150 releases from underground storage tanks or lines have been cleaned up by the OHC program.

Where contamination from tank releases can meet the DEQ Soil Matrix Cleanup Values, OHC incurs an average cost of about $7,900 for each tank release responded to. Where groundwater is affected, costs for both investigation and remediation of the site is much higher - upwards of $125,000 So much higher in fact, that OHC is very concerned that several significant groundwater contamination problems might delay the ability of the fund to pay for cleanups.

The staff report's "Fiscal and Economic Impact Statement" projects the cost of adding additional monitoring requirements to a site with three groundwater monitoring wells. That is not a very likely scenario in the complex area of predicting groundwater flow and contaminate fate and transport concentrations. The "Fiscal Statement" greatly underestimates the costs of the additional proposed monitoring requirements.

Use of an indicator pollutant such as Total Petroleum Hydrocarbon concentrations to track remediation activities will substantially reduce the monitoring costs at sites, with no impact on the environment.

We have made detailed comments to the rules below:

SPECIFIC COMMENTS ON THE DRAFT RULES

Draft Rule Section	Comments
Section 340- -122-250(4)	A performance standard is needed to require that a treatment system performance be improved. The DEQ staff should not be substituting their judgement for the Responsible Parties if treatment systems are equally effective.

-122-255(1)	Some flexibility is needed at sites where installing monitoring wells is not possible.
-122-255(2)	Quarterly sampling is not necessary for all pollutants of concern. An indicator pollutant such as Total Petroleum Hydrocarbon (TPH) should be used to reduce monitoring costs. When the indicator pollutant levels have decreased to acceptable standards, then a more comprehensive laboratory analysis can be completed to demonstrate compliance.
-122-255(3)	Either standard references or specific analytical methods are fine. However, the Department needs to make a commitment to one reference or the other. Having specific methods set in the rules, and the Department staff determining that other test methods or additional tests are necessary through a "policy" leads to excessive analytical costs.
-122-255(4)	A sentence is needed in the "Selection of Standards" to indicate that if the site is affected by upgradient sources of petroleum product contamination migrating onto the site, that the cleanup responsibilities of the separate Responsible Parties will be assigned.
-122-255(5)	The PAH concentrations for carcinogenic PAH's should be returned to the Practical Quantification Levels included in the Department's "Groundwater Cleanup for Petroleum Substances"

	policy (7/31/91). Setting environmental cleanup standards at levels far below detection based on calculated values is not good public policy.
-122-255(5)(B)	Additional information gathered in the field is necessary to determine if PAH monitoring is necessary for releases from heating oil.
-122-255(5)(C)	A sentence should be added..."If no concentrations of volatile aromatic hydrocarbons or PAH's are found at detectable levels in the initial round of sampling, they shall be presumed to not be present." This sentence should also be added at the end of OAR 340-122-355(3) pertaining to when Corrective Action Plans will be required at Soil Matrix Sites.
-122-255-(8) (a)	We question why the four consecutive sampling events cannot include the sampling where preliminary compliance is determined since this would yield an entire year of data spanning the hydrological cycle.
-122-255(8)(b)	A specific standard should be included to detail the conditions under which the Department will require continued treatment or monitoring. We recommend..."The Department will only require continued treatment and/or monitoring of the groundwater where the Department can demonstrate that the excess cancer risk at the remaining concentrations exceed acceptable (1 x 10-6) levels or where the Department

demonstrates that earlier requirements of its rules were not met."

In summary, we are anxious to work with the DEQ staff to attempt to find methods to achieve the environmental goals set in the rules at a cost which will allow the OHC's Environmental Protection Fund to continue to pay for heating oil tank releases.

Very Truly Yours,

Terrie J. Heer

Terrie J. Heer
Administrator

cc: Oregon Oil Heat Commission

END

OREGON GASOLINE DEALERS' ASSOCIATION INC.

Mr.Alan Kiphut
Department of Environmental Quality
UST Cleanup Section
811 SW Sixth Avenue
Portland, Oregon 97204-1390

Dear Mr. Kiphut,

We are writing in response to your request for written comments on the rule amendments that establish groundwater cleanup standards in order to foster consistent cleanup of UST releases and protection of public health, safety, welfare and the environment.

First of all, we would like to speak to an overall concern we have regarding the process in which these rules were written. We are absolutely astounded that our industry was not represented on the committee that developed these rules over a year's period of time. Not only were we not represented on the committee, but we were not even asked for our input during the entire year's process!

We are the keepers of underground storage tanks. Tanks are the most essential part of our businesses and yet we were still prohibited from participating in the process that analyzed and developed the standards that so effect everything we do.

We do not believe that this is a concern that can be overlooked any further and we will bring our not being allowed to participate in the development process to the attention of the EQC.

Now about the rules themselves. We have the following comments:

1. We believe that the tests on the PEH's are more stringent than they need be. It is our understanding that they are even more stringent than the test required for drinking water standards, by the Department of Health, Drinking Water Division, State of Oregon.
We asked that this area be reexamined and that the tests be less stringent.

2. The fiscal impact of such standards as these is greater than estimated in your report. We ask that your advisory committee revisit the topic of fiscal impact on our industry and we hope you will this time use some realistic data to show the real fiscal impact these rules will have on our industry.

3. We ask that with the current UST crisis that exists in this state that DEQ delay implementation of these rules, until such time as the Environmental Protection Agency requires implementation nationally.

That concludes our remarks regrading the proposed standards.

Sincerely,

Al Elkins

I-75

PACIFIC
ENVIRONMENTAL
LABORATORY INC.

January 30, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, OR 97204

Re: Written comment on the proposed amendments to underground storage tank cleanup rules (OAR 340-122-205 through 340-122-360) to incorporate groundwater cleanup standards.

To: UST Cleanup Section

I am writing as representative of Pacific Environmental Laboratory, to present written comment for the record, regarding issues to resolve over the proposed amendments to underground storage tank cleanup rules. Comment will be given only on section 340-122-255, Groundwater Cleanup subsection (3) Analytical Methods.

In response to the issue of method 8310 being the only acceptable method for polynuclear aromatic hydrocarbon (PAHs) analysis of samples intended to provide data for compliance evaluation. We agree that method 8310 is an accepted method for PAH analysis, but it is not the only method available nor is it necessarily the most accurate, precise, or complete method.

Pacific Environmental Laboratory has conducted tests, and has determined that Gas Chromatography / Mass Spectroscopy (GC/MS) used in conjunction with Selective Ion Monitoring (SIM) provides excellent results for the analysis of low level PAHs in groundwater. It is our belief that the analysis of PAHs by GC/MS in SIM mode is more accurate, precise, and complete than method 8310.

Enclosed is a brief overview of methods of PAH analysis, PEL's GC/MS SIM method of PAH analysis, and results of a method detection limit study of PAH analysis by GC/MS in SIM mode. This overview and study was prepared and conducted by Tom Barnes, PEL's GC/MS Manager. We hope that this overview will assist the Commission in validating GC/MS in SIM mode as an accepted method for PAH analysis.

I-76

9405 S.W. Nimbus Ave. ■ Beaverton, OR 97005 ■ (503) 644-0660 ■ FAX # (503) 644-2202

PACIFIC
ENVIRONMENTAL
LABORATORY INC.

At this time Pacific Environmental Laboratory has received permission from Rick Gates, DEQ's Organic Laboratory Supervisor, to use GC/MS in SIM mode for the analysis of PAHs in groundwater samples used for compliance evaluations. PEL would like to continue using this procedure for this purpose, and if need be, assist DEQ in further evaluation of the procedure for official acceptance.

If you should have any question or if you wish to meet with us on these matters, please contact Tom Barnes or myself at your convenience.

Sincerely,

Howard Boorse
Quality Assurance Director

9405 S.W. Nimbus Ave. ■ Beaverton, OR 97005 ■ (503) 644-0660 ■ FAX # (503) 644-2202

DEQ NOTE: The supporting documentation submitted by Howard Boorse of Pacific Environmental Laboratory is found in Attachment J and is on file at the Department and available upon request.

PIONEER
ENERGY CO.

January 29, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, Or 97204

RE: PROPOSED AMENDMENTS TO UNDERGROUND STORAGE TANK CLEANUP RULES
NUMERIC GROUNDWATER CLEANUP STANDARDS

Dear Sirs:

Pioneer Energy Co. is an independent jobber of Petroleum products. We service the Central Oregon Area. As Pioneer Energy Co.'s operating officer I would like to take this opportunity to comment on the proposed hazardous substance soil rules that relate to petroleum products. Unfortunately I have been unable to attend any of the public meetings that have been held.

I have been doing a lot of reading on the new proposed LUST cleanup rules. I believe that these new rules could eliminate the vast majority of petroleum related service used and needed by the general public.

I believe the DEQ needs to address the types of test proposed and whether they are appropriate, reliable and necessary in all cases and test conditions. The State of California Leaking Underground Fuel Tanks Task Force has stated in their Field Manual that due to the difficulties in discerning between organic lead and total lead, analysis for lead should only be used under certain site specific conditions. An example would be at sites where significant leaded gasoline leaks have occurred. Caution is advised, however, that background total lead concentrations must be known in order to distinguish between naturally occurring lead and organic lead associated with subsurface petroleum releases. The Washington State Department Of Ecology has published a document titled, "Guidance for Site Checks and Site Assessments for Underground Storage Tanks," DOE, February, 1991, that addresses the types of tests needed and what is appropriate. Intensive evaluation of other state LUST site requirements may reveal information that suggests that some of the DEQ-proposed analyses, while appropriate at some site cleanups, are not appropriate as proposed.

I-79

TELEPHONE (503) 475-2177 • LOU DOBBINS, JOBBER

Chevron

POST OFFICE BOX 590 • MADRAS, OREGON 97741

As a jobber of Petroleum products Pioneer Energy Co. has strived to meet all DEQ regulations now in effect. I do believe that some regulation is necessary but question the proposed rules. I do believe that additional investigation of regional and national LUST site cleanup standards will result in adoption of more efficient and effective LUST groundwater cleanup standards.

Thank you for this opportunity to submit these comments.

Sincerely,

Lou Dobbins

Lou Dobbins,
President

LD/rrs

Port of Portland
Box 3529 Portland, Oregon 97208
503/231-5000

January 30, 1992

Department of Environmental Quality
Environmental Cleanup Division
811 S.W. Sixth Avenue
Portland, OR 97204-1390

Attn: Alan D. Kiphut

COMMENTS REGARDING PROPOSED REVISIONS TO UNDERGROUND STORAGE TANK REGULATIONS (OAR 340-122-205 THROUGH 360)

The Port of Portland's Environmental Services Division has reviewed the Department of Environmental Quality's proposed rule amendments to the Underground Storage Tank (UST) Rules regarding groundwater cleanup standards. We wish to express several concerns relating to these proposed revisions.

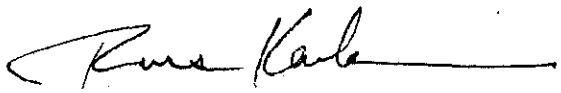
First, there is no clearly demonstrated justification for the need to regulate the compounds specified in the proposed rule amendments, specifically gasoline additives and carcinogenic and non-carcinogenic polynuclear aromatic hydrocarbons (PAHs). It is unclear if experience at actual UST sites where groundwater has been impacted supports adoption of the proposed standards. Although some risk assessment information is alluded to in the supporting documentation, a stronger and more complete case must be presented to justify the significant revisions to the cleanup rules.

Second, it appears that the fiscal and economic impact of the proposed revisions are understated in relation to any marginal benefits in protecting public health, safety, and the environment. Costs for monitoring and analysis, remediation, and DEQ oversight should be examined more closely and modeled at actual project sites to determine the extent of impact on the regulated community and agency resources. This type of approach would more accurately reflect true impacts of the proposed regulations.

Third, one stated intent of the proposed rule revisions is to "...foster consistent cleanup of UST releases...". However, each UST site is unique in many characteristics and the aquifers potentially impacted by these USTs also exhibit much variety in characteristics and uses. This combination of factors makes a standards-based regulatory approach much less than optimal. Site-specific factors should be utilized and be evaluated carefully to determine appropriate cleanup standards which provide desired levels of protection to public health and the environment, rather than relying on individual, rigid standards for all sites.

We would encourage the DEQ to carefully re-examine the fiscal and resource impact of the proposed UST rule revisions as balanced by the marginal benefits which might be provided. In addition, we recommend referring the proposed rule amendments back to the Environmental Cleanup Advisory Committee for development and evaluation of additional information regarding impacts and risk assessments before proceeding further with the rule adoption process.

If you have any questions regarding these concerns, please contact me at 731-7323 at your convenience.



Russ Korvola
Environmental Management Specialist
Environmental Services Division

RZA - AGRA
(Rittenhouse-Zeman & Associates, Inc.)
Engineering & Environmental Services

7409 SW Tech Center Drive
Suite 135
Portland, Oregon 97223-8024
(503) 639-3400
FAX (503) 620-7892

January 31, 1992

Oregon Department of Environmental Quality
UST Cleanup Section
811 SW 6th Avenue
Portland, OR 97204

Attn: Mr. Alan Kiphut

SUBJECT: PETROLEUM UST CLEANUP
PROPOSED RULE AMENDMENTS
OAR-340-122-205 THROUGH 360

Dear Mr. Kiphut:

We appreciate the opportunity to provide written comments on the proposed changes to existing UST cleanup rules. It appears that considerable effort was devoted to preparing the draft rule changes, and much good should come out of formalizing many of the existing policies governing the way in which groundwater is investigated and remediated. We recommend that all proposed rule changes be adopted, with the exception of establishing basic numeric groundwater cleanup levels for PAHs and gasoline additives. We have determined that the potential economic impact and the adverse effect on the entire UST cleanup program have been grossly underestimated by the advisory committee recommending the rule changes, and the matter should be evaluated further before these cleanup levels are adopted.

One of the major proposed rule changes in 340-122-255 is the establishment of numeric cleanup levels for 13 PAHs and three gasoline additives. Attachment C of the draft rule change packet provides a fiscal and economic impact statement, apparently prepared by the advisory committee recommending the rule changes. Because RZA has been involved in engineering groundwater remediation systems where fuel hydrocarbon releases have taken place, and a number of these systems have been operating for several years, we would like to provide the committee with additional information on the potential economic repercussions of regulating these additional 16 constituents.

Attachment C of the rule change packet suggests that the additional costs to operators that would result from regulating the additional constituents, would roughly equal the cost of additional quarterly monitoring analyses. An example is used in Attachment C, to show that the additional cost is approximately 5% to 10% over the life of a typical groundwater remediation project ($100,000 to $250,000) in which gasoline or diesel

is being cleaned up. It should be noted that if the 16 additional constituents are regulated, they will need to be remediated, not simply documented through laboratory testing.

We have identified a number of areas in which project costs potentially would be increased as a result of regulating PAHs and additives. These are presented as follows:

1. Laboratory Testing

As discussed above, ODEQ has identified additional laboratory testing costs associated with regulating PAHs and gasoline additives. The example used to demonstrate cost increase in the document provided by the advisory committee, is that of the testing of three wells quarterly, for a total of three years. In our experience, there are very few remediation projects that are characterized by three monitoring wells (we assume this also includes the recovery well or wells). A more typical project includes six to ten wells. Second, we assume that the three year time period used in the cost scenario represents remediation only. Additional testing costs would be required during tank decommissioning, site investigation, off-site investigation, NPDES permitting, and during the year of monitoring after system shut-down. Third, there is no discussion of soil testing costs. While ODEQ is not recommending soil numeric cleanup standards for PAHs, soils would have to be characterized, in many cases, in order to insure that they would not continue to act as contaminant sources, impacting groundwater. Finally, if one examines the proposed rule changes (340-122-255), these include the preparation of trip blanks, duplicates and transfer blanks. The cost of this additional QA/QC testing is not included in the fiscal and economic impact statement, and we estimate that it would roughly double the cost of the three-well testing program scenario of the committee.

2. Subsurface Assessments

Groundwater contaminant plumes defined by volatile aromatic compounds (BTEX) do not necessarily coincide with PAH contaminant plumes. In some cases, PAH plumes are known to exist where BTEX plumes do not. The vertical distribution of PAHs in the saturated zone does not necessarily coincide with the vertical distribution of BTEX contaminants. In other words, by regulating PAHs and additives, additional costs may be required to investigate the subsurface distribution of these constituents. This would potentially take the form of more wells, deeper wells, additional testing during investigations, additional consultant's time for modeling, preparing reports, etc.

3. Corrective Action Plan Preparation

All feasibility testing associated with selecting remedial options at sites where PAHs or gasoline additives are found to be present, would be at additional cost. It should not be assumed that PAHs and gasoline additives would be "taken care of" through the remediation of gasoline or diesel. In certain cases, no CAP may be required except for the presence of PAHs.

4. Remediation

If PAHs and gasoline additives in groundwater are regulated with numeric cleanup standards, we assume that ODEQ will require that these constituents be remediated, and not simply tested on a quarterly basis. The treatment options available in cases where PAHs or organic lead are present in groundwater contaminant plumes, may be much more limited and expensive than in those cases where these constituents need not be addressed. As an example, a site that is subject to corrective actions through air stripping and vapor recovery, may require a granulated active carbon system if PAHs or lead are present. Soils may need to be excavated where vapor extraction would not succeed in removing PAHs or organic lead.

We discussed this matter with the Hazardous Waste Management Division of USEPA/Region III, Philadelphia, Pennsylvania. We also spoke with the USEPA Water Engineering Research Laboratory in Cincinnati, Ohio. EPA basically informed RZA that PAHs are often difficult and very expensive to remediate. In cases where groundwater contaminant levels have diminished over time, system shutdown is often followed by a steady rise in PAH concentration levels in groundwater.

Naphthalene is perhaps the only PAH of the group of 13, that could be remediated through air stripping. However, much larger stripper towers would be required because of naphthalene's relatively low Henry's constant. Other PAHs would need to be remediated through the use of carbon systems or with alternate technologies. Depending upon the baseline contaminant concentrations, this could double or triple the cost of a remediation project over those in which only BTEX or diesel need be addressed.

RZA recognizes that PAHs and gasoline additives may be carcinogenic and we wish to make it clear that we are not recommending these constituents not be addressed through the UST cleanup program. However, the economic impact associated with regulating these additional constituents may not have been considered in full by the advisory committee. If PAHs and gasoline additives are regulated with numeric cleanup standards at this time, the State of Oregon may risk that many owners and operators, currently running

active groundwater treatment systems, will run out of money during the investigation phases of their projects, before remediation can begin.

We believe that regulating these 16 additional constituents may have profound economic repercussions for owners and operators, and the pace of the entire UST cleanup program may be slowed considerably. We recommend a delay in establishing numeric cleanup standards for PAHs and gasoline additives until the full impact of this proposed action is better evaluated and understood.

Respectfully submitted,

RZA AGRA, INC.

Douglas A. Smith, P.G., Senior Hydrogeologist

SCHWABE WILLIAMSON & WYATT
ATTORNEYS AT LAW

PACWEST CENTER, SUITES 1600-1950
1211 SOUTHWEST FIFTH AVENUE • PORTLAND, OREGON 97204-3795
TELEPHONE: 503 222-9981 • TELEFAX: 503 796-2900 • TELEX: 4937535 SWK UI

NEVA T. CAMPBELL
DIRECT LINE: 503 796-2912

January 31, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Division
811 S. W. Sixth Avenue
Portland, OR 97204

HAND DELIVERED

Re: Comments on Proposed Amendments to Underground Storage Tank Rules (OAR 340-122-205 through 340-122-360)

We represent a number of small to mid-sized companies affected by the proposed amendments to OAR 340-122-205 through 340-122-360. Several have underground storage tanks at more than one site. They are already challenged economically in complying with UST regulations as they presently exist. These proposed amendments have economic impact on the regulated community far beyond the estimates in the Fiscal and Economic Impact Statement included as Attachment C in the staff report recommending approval of the amendments.

The economic impact of these additional tests and cleanup standards cannot be minimized. The cost cannot simply be "weighed against" the protection of public health, safety, welfare and the environment. Realistically, many responsible businesses will not have the money to complete the cleanup after meeting all the requirements preliminary to cleanup. That does not foster public health and welfare.

Fair market values of properties with UST's are depressed in proportion to the cost of compliance and of demonstrating compliance with environmental regulations. The report alludes to the real possibility that local jurisdictions may become the owners of USTs through tax foreclosures.

No data is provided in the staff report showing how often or under what typical conditions the presence of additives and EDB/EDCs has been found in test samples from sites in Oregon with petroleum releases from USTs. Developing specific guidelines for use by regional cleanup personnel to first determine whether conditions consistent with the presence of additives or EDB/EDCs exist at a site to justify costly additional testing would contribute to cost containment.

The prospect of mitigation of the cost of DEQ oversight at sites with extensive contamination and more monitoring wells through availability of clear standards and a delineated process

(Attachment C-1) is ephemeral at best. DEQ personnel will undoubtedly continue to make visits to sites with extensive groundwater problems. Additional expertise will be required for review and approval of proposed cleanup plans and procedures.

The staff report mentions consistency repeatedly as a purpose for proposing these amendments. Consistency is a goal of all parties involved in cleanup of contamination. However, an element of discretion is inevitable and these rules provide for that. For example, OAR 340-122-255(3)(e) allow the DEQ to require alternative tests based upon information about the use of the site, results of preliminary tests, and other site-specific factors. OAR 340-122-255(8)(b) allows the DEQ to require continued treatment and/or monitoring depending on site-specific conditions, even where a party has complied with all the rules. Thus, there is no certainty under these amendments; no assurance of consistency or predictability of outcome that will enhance the decision-making ability of the responsible party involved in cleanup situations.

These rules are designed for expediency of enforcement--to "facilitate," "streamline," "delineate required procedures," "decrease Department oversight"--without due regard for site and case specific variations. The effect will likely be a strict interpretation in discretionary matters by DEQ personnel already overextended by demands of their jobs.

Since a primary concern of the UST Program is establishing achievable cleanup standards, those standards should be set only at levels verified to be accurately measurable and attainable by proven cleanup methods. Many cleanup dollars will be wasted on design and construction of additional experimental cleanup facilities if standards are adopted prematurely. It is one thing to mandate cleanup levels but quite another to determine how to achieve them. The rules delineate testing and monitoring procedures--not cleanup procedures. Only the cost of testing is addressed as a cost consideration in the report. Engineering consulting is a major factor in the cost of cleanup.

What needs to be done must be weighed with what realistically can be done. We urge that these proposed rule amendments be tabled pending accumulation and evaluation of additional data before imposition of costly additional testing and remediation obligations on responsible parties, with the inevitable far-reaching economic as well as other public welfare repercussions.

Very truly yours,

Neva T. Campbell

Neva T. Campbell

NTC:oo

I-88

Stein
OIL CO. INC.

19805 McLOUGHLIN BLVD.
GLADSTONE, OREGON 97027

656-0375

JANUARY 29,1992

DEPT. OF ENVIRONMENTAL QUALITY

611 SW SIXTH AVENUE

PORTLAND, OR 97204

RE: COMMENTS ON AMENDMENTS
STORAGE TANK CLEAN UP
(OAR 340-122-205, 340-122-3

STEIN OILCO. INC. IS WRITING REGARDING CONTEMPLATED AMENDMENTS. WE DISAGREE WITH THE INCLUSION OF LEAD (EDB) & (EDC) BEING ADDED AS ADDITIONAL PARAMETERS OF SITES CLEANUP. EVEN THE STATE OF CALIFORNIA, WHO HAS SET SOME OF THE HIGHEST STANDARDS IN THE COUNTRY " HAS STATED IN THE LUFT FIELD MANUAL THAT DUE TO THE DIFFICULTIES IN DISCERNING BETWEEN ORGANIC LEAD AND TOTAL LEAD, ANALYSIS FORLEAD SHOULD ONLY BE USED UNDER CERTAIN SITE SPECIFIC CONDITIONS." FUTHERMORE THE LUFT TASK FORCE HAS RECOMMENDED TO THE STATE OF CALIFORNIA REQUIRING ONLY THIS TEST FOR TOTAL PETROLEUM HYDROCARBONS.

THE QUESTION MIGHT BE ASKED, WHY WOULD STEIN OIL CO. INC. BE INTERESTED IN THE PROPOSED AMENDMENT TO EXISTING CLEAN UP, HERE ARE A FEW SPECIFIC REASONS:

* THE COST OF ADDITIONAL MOINTERING WELLS COULD RESULT IN A PROPOSED 22% ADDITIONAL COST OF CLEANUP PER SITE.

* PENDING THE CHALLENGE TO BILL 1215, OREGON IS 1 OF ONLY 14 OTHER STATES IN THE UNITED STATES WITH NO STATE CLEAN UP FUND INEXISTENCE.

*STEIN OIL CO. INC. IS ACTIVELY TRYING TO COMPLY WITH NEW REGULATIONS OF VAPOR RECOVERY II AND UPGRADING OF ALL FACILITIES. WE ARE FACED WITH A TOUGH JOB ********** BASED ON INBAILITY OF ANY POTENTIAL FINANCIAL LENDERS AVAILABLE IN THE PETROLEUM INDUSTRY, BEACAUSE OF LENDER LIABLITY.

* AS A SMALL PETROLEUM DISTRIBUTION, WE ARE NOT ABLE TO FUND INTERNALLY AS A MAJOR OIL COMPANY CAN WITHOUT CONSEQUENCE TO NEW REGULATIONS.

Stein
OIL CO. INC.

19805 McLOUGHLIN BLVD.
GLADSTONE, OREGON 97027

656-0375

IF WE OR OTHER SMALL INDUSTRY UST PROPERTY OWNERS CAN NOT COMPLY AND GO OUT OF BUSINESS THIS WILL NOT HELP DEQ OR THE TAXPAYERS OF THE STATE OF OREGON.

THANK YOU FOR BEING ABLE TO SUBMIT OUR INPUT.

SINCERELY,

S. L. STEIN

STEIN OIL CO. INC.

Stein
OIL CO. INC.

19805 McLOUGHLIN BLVD.
GLADSTONE, OREGON 97027

656-0375

January 28, 1992

Department of Environmental Quality
611 SW Sixth Avenue
Portland, OR 97204

RE: Comments on Amendments
Storage Tank Clean-up
(OAR 340-122-205, 340-122-360)

We are writing in concern with the addition and contemplated amendments to existing clean-up rules.

In researching the contemplated requirements of the amendments, we question why Toluene dropped 1,000 from 2,000 ppb, we also have questions regarding some of the compounds are to be analyzed -- how many could be natural to soil conditions individual to the site.

The cost of additional monitoring wells per site could be a very costly factor to us, combined with increased laboratory testing costs.

I'm not sure how many of us are going to be able to cope with need for funding for compliance of existing regulations, let alone an increase in testing criteria; the practical question is we need help! -- without activation of SB1215 we're in trouble trying to fund what already exists -- the need for 3rd phase conversion alone, in the Portland area, is a significant cost to us this year and has to be met by a time frame.

We ask that you postpone any decision on additional enactments to 340-170-205, and 340-170-360 so we can spread some of these costs over a longer period of time, or at least have an avenue of help to get the "Job" done.

Major Oil can fund internally most everything that comes, many of us which are independent are doing our very best to conform to existing regulations, with funds at hand.

While I realize the function of DEQ Compliance does not view our individual financial ability to meet standards or compliance, the practicality of being able to complete requirements comes right down to do we have enough money to get the job done.

If we go broke or cannot get financial help we can have all the regulations imaginable but our lack of ability to comply is not going to help us or the DEQ in completing those tasks.

Please postpone revisions to OAR 340-170-205 and OAR 340-170-360.

Sincerely,

R.L. Stein, President
Stein Oil Co., Inc.

I-91

RLS:ae

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D.E.Q.
ENVIRONMENTAL CLEANUP DIVISION
UST CLEANUP SECTION
811 S.W. SIXTH AVE
PORTLAND,ORE. 97204

COMMENT ON PROPOSED RULE CHANGE

GENTLEMEN:

Adoption of the proposed standards will impose significant additional costs on Underground Storage Tank owners and operators. It is unclear if experience with regional and /or national LUST sites support the adoption of all of the proposed constituent standards. I would recommend delay of the adoption of the proposed regulations until additional information has been collected and evaluated.

All of the added expense and time involved in doing extra evaluation of the soil conditions, will hold up the replacement of the old tanks.Also the expense will have to be paid by the people buying gasoline here in Oregon.

L.R.SWARTHOUT

I-92

TAG Technical Action Group
TECHNICAL ACTION GROUP, INC. ◆ 8948 S.W. Barbur Blvd., #163 ◆ Portland, Oregon 97219
Environmental Services

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To Alan Kiphut	From Jack Arendt
Co. DEQ	Co. Technical Action Gp.
Dept. NW Rgn (UST)	Phone # 293-1586
Fax # 229-6124	Fax # 245-1471

January 30, 1992

Mr. Alan Kiphut
Program Technician
UST Cleanup Section - Northwest Region
Oregon Department of Environmental Quality
811 S.W. 6th Avenue
Portland, Oregon 97204

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED:
JAN 31 1992
ENVIRONMENTAL CLEANUP DIVISION

REFERENCE: GROUNDWATER CLEANUP STANDARDS

Dear Mr. Kiphut:

In accordance with your request, I am pleased to comment on the Department of Environmental Quality (DEQ) proposed amendments to the UST Cleanup Rules. Of primary concern is the philosophy that groundwater investigations should be interpreted similarly, and as such, should be grouped state wide under one standard. I agree with your desire to implement the cleanup levels presented on page A-5. Likely, most areas will require those levels for public health and safety. However, it has been my experience that each site is a complex combination of differing parameters.

As a consulting groundwater hydrologist, the only entity that appears similar for each investigation is the fact that every site is different. To group the standards to simplify or clarify cleanup goals on a state wide basis is a disservice to the many competent groundwater consultants in the industry. As consultants, we have worked very hard to understand the relationships that interplay between cleanup goals and reality.

I recommend the department implement the most stringent measures possible and then allow the consultant to prove why, in some cases, the measures may not feasible.

During the interim, if you need any additional information, please do not hesitate to call me at (503) 643-9218 or 293-1586.

Respectfully submitted,
TECHNICAL ACTION GROUP, INC.

Jack Arendt, R.P.G.
Registered Professional Geologist
Environmental Engineering Services

lgwmatrix.doq

I-93

Bill Terpening

936 South Central Ave. • Medford, OR 97501 • (503) 773-7311 • (503) 476-1961

Medford Grants Pass

MEDFORD FUEL
AN INDEPENDENT FRANCHISEE OF
PACIFIC PRIDE
THE COMMERCIAL FUELING SYSTEM

January 28, 1992

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED:
FEB 0 4 1992
ENVIRONMENTAL CLEANUP DIVISION

Mr. Alan Kiphut
Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, OR 97204

RE: Proposed Amendments To Underground Storage Tank Cleanup Rules
Numeric Groundwater Standards

Dear Mr. Kiphut:

As a BP Jobber here in Medford, I am very concerned and am writing in response to the proposed amendments to the underground storage tank cleanup rules.

I do not feel that an adequate study has been given to these proposed rule changes, nor do I feel that I was properly notified of the proposed changes. There has been relatively little time given between the hearings and testimony about these cleanup standards. A response to the amendments is premature. I do not feel the Department should be able to do this so quickly.

I also do not feel that lead, ethylene dibromide (EDB), or ethylene dichloride (EDC) should be included in testing methods. Due to these additional samplings and laboratory analysis, the costs in relation to the total site investigation and cleanup will go up in the range of 7% to 14%. There simply are not enough benefits given to justify these added costs. I feel these proposed changes would be a waste of money and would certainly be of no benefit to my business, Medford Fuel. It is my hope that the Department of Environmental Quality would take these thoughts into consideration and allow additional time for a more thorough investigation of this important issue.

Thank you for allowing me to submit these comments.

Sincerely,

Bill Terpening

Bill Terpening

I-94

Texaco Refining and Marketing Inc 1800 S W First Avenue
Suite 200
Portland OR 97201-5325

January 31, 1992

Mr. Alan D. Kiphut
Department of Environmental Quality
Environmental Cleanup Division, UST Cleanup Section
811 S.W. 6th Ave
Portland, Oregon 97204

Subject: Comments on Proposed Amendments to Underground Storage Tank Cleanup Rules

Dear Mr. Kiphut:

Thank you for the opportunity to provide the Oregon Department of Environmental Quality (DEQ) with comments on the proposed regulatory amendments to OAR 340-122-205 through 360. Texaco encourages the DEQ to give serious consideration to these comments prior to adoption of any final amendments.

Texaco would like to express particular concern with the proposed cleanup standards for the carcinogenic polynuclear aromatic hydrocarbons (PAH's). The proposed standard of 0.003 ppb is at least 100 times more stringent than the proposed Maximum Contaminant Levels (MCL's) for Federal Drinking Water Standards. This differs from the proposed cleanup standards for BTEX compounds, which mirror the MCL's of Federal Drinking Water Standards. Texaco is not aware of any widely accepted scientific data that warrants such low cleanup levels for carcinogenic PAH's.

While it may be possible to detect PAH's at the proposed cleanup standards sometime in the future, remedial technologies are not at a point to make these levels feasible. The added time, effort, and expense of testing and cleaning ground water to these levels will not only affect Texaco at 69 service stations and the bulk terminal within Oregon where Texaco owns underground storage tanks, but will impose a serious financial hardship on the independent operators and businesses that market Texaco products at over 250 independent service stations throughout Oregon.

In addition to the direct costs associated with such low cleanup levels, these levels could greatly restrict property transactions and financing within Oregon. Under the proposed regulations, the ultimate cleanup level for carcinogenic PAH's would be up to 133 times more stringent than what would be the initially enforced cleanup level, defined as the current Practical Quantification Limit (PQL) for these constituents. This raises the distinct possibility that a property being sold as "clean" under the current regulations could be defined as "dirty" at a later date.

Texaco Recommends that the cleanup standards for carcinogenic PAH's be set to match the Maximum Contaminant Levels for Federal Drinking Water Standards.

Sincerely,

Dale Andert

Dale D. Andert
Texaco Refining and Marketing Inc.

MWC:\misc\ddqpah
cc: JHBingen AMBurke RWConlon TWLewers LLLiddell JAPrice FJSchlicher NLStanley DVWatson JAWenker

I-95

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SEATTLE, WA 98199-1233
SEATTLE, WA 98124-0447

January 30, 1992

VIA FAX

Mr. Alan Kiphut
Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 SW Sixth Avenue
Portland, OR 97204

RE: Comments on Petroleum UST Cleanup Rule Amendments

Dear Mr. Kiphut:

Thank you for this opportunity to review and comment on the proposal to amend DEQ's rules for the cleanup of petroleum spills from underground storage tanks. Time Oil Co. is an independent terminaling and marketing company operating in the five western states. We currently operate approximately 100 underground storage tanks at 31 retail facilities within the state of Oregon. We are in the process of upgrading these facilities to maintain compliance with increasingly stringent federal and state regulations. Therefore, these rules are of grave concern and will have significant fiscal and operational impacts on Time Oil Co.

GENERAL COMMENTS

The Rulemaking Process

In general, we have serious concerns regarding the promulgation of these rules as proposed. It is our sincere hope that the DEQ will defer adoption of these rules until the following areas of concern can be addressed. This rule appears to have been hastily put together without careful consideration of the concerns of the regulated community. There are many sensitive issues that are not adequately addressed and as a result the rules will cause more confusion than exists at present.

Impact of the Proposed Rules

It is not evident that the comprehensive view of potential impacts on owners and operators of underground petroleum tanks has been given sufficient consideration. Besides the obvious laboratory and consultant expenses this rule will impose, oversight of the program will require a significant increase in DEQ staff time. The cost of additional staff will surely be passed on to taxpayers, owners and operators through increased taxes and cost recovery programs. These costs do not appear to have been calculated and clearly presented to the regulated community in the Fiscal and Economic Impact Statement.

Polynuclear Aromatic Hydrocarbons (PAHs)

There is a definite need for clear guidance on groundwater cleanup levels, so we applaud the DEQ for establishing numeric guidelines for the remediation of benzene, toluene, ethyl-benzene and xylenes (BTEX) in groundwater affected by petroleum releases from underground tanks. However, it is unclear as to why PAHs are being added to the list of regulated compounds for groundwater. If the designation of PAHs as being carcinogenic is the sole reason for including them in this rulemaking, then what is the anticipated reduction in the number of cancers from the implementation of these rules? The DEQ's "Statement of Need for Rulemaking" does not address the need for regulating PAHs from petroleum releases nor does it identify any benefits that might be derived from such regulation. The fact that several states regulate PAHs is irrelevant. Considering the extremely burdensome monitoring requirements proposed by DEQ and the high cost of PAH analyses, there is simply no justification for regulating PAHs.

The DEQ has overlooked the many sources of PAHs other than releases from petroleum storage tanks. Sources which must be taken into consideration include the following; backyard barbecues, the charred surface of a hamburger, which has high levels of PAH, and asphalt, which is comprised of 10 to 50 percent PAH. If PAHs are detected at an underground diesel tank site, will it be arbitrarily assumed that the PAH comes from the diesel fuel? If the site had previously experienced a fire, or if a piece of asphalt fell into the excavation, there could be high levels of PAH in the soil or groundwater.

The PAHs commonly found in food, asphalt and fires is identical to those which the DEQ proposes to regulate. The point is that PAHs, unlike BTEX, have many sources other than petroleum products. To single out one potential source of PAH for monitoring will not result in any improvements to human health or the environment but will only divert funds that could be better spent on correcting real problems.

Groundwater With No Beneficial Use

The proposed rules do not sufficiently provide for circumstances in which there is clearly no potential for present or future beneficial use of the impacted groundwater. It is true that a risk assessment could be performed to establish alternate cleanup levels, however pre-determined non-beneficial use areas should be designated in the rule or by region.

SPECIFIC COMMENTS BY SECTION

340-122-250

(4) By what standard is the DEQ going to " determine(s) that the treatment system performance (e.g. rate of cleanup) must be improved...or modified". What treatment technologies will be accepted by DEQ? Will the DEQ set treatment system standards? Different technologies with different

rates of cleanup will be used. What are the DEQ's expectations from different technologies and what is the basis for those expectations? What are the procedures for obtaining approval of an experimental cleanup technology?

340-122-255

(2)(d) The requirement for field blanks, transfer blanks and duplicates, doubles the number of required analyses for a site with the minimum three monitoring wells. Analytical costs for one sampling event where PAHs are involved will be increased by $2,400 (6 samples * $400 each per DEQ's estimate). The required four sampling events per year will result in increases in analytical costs of $9,600 per year above already required analytical expenditures.

(3) The intent of the term, "intended to provide data for compliance evaluation" is not clear. What samples are not so intended?

(4)(b) Conduct of a risk assessment is provided as an alternative approach to setting cleanup levels. Will the DEQ issue standards for the conduct of a risk assessment? If the DEQ rejects the conclusions of a properly-performed risk assessment will there be an opportunity for appeal?

(5)(a) As noted in our general comments, the DEQ has not adequately justified the inclusion of PAHs in this rule. It is our opinion that such a requirement is scientifically unsupported and should be deleted.

(5)(b)(C) The term, "residual fuels" is not defined, nor is there any reference to another Oregon rule wherein it has been defined.

(6)(a) The term, "compliance monitoring point" is not defined and is especially confusing with respect to the phrase "out to the edge of the contaminant plume." At what point in time is the edge of the plume established; at the beginning of the cleanup or at the end? Why should they not be beyond property lines? Furthermore, why should DEQ permission be required to install an off-site well if permission has already been granted by the property owner? This requirement adds unnecessary delay and additional oversight (red tape) to an already burdensome process.

(6)(b) The phrase, "lowest depth which could potentially be affected by the release" is too vague and is subject to unrestrained interpretation. Is the DEQ planning to establish a policy on how wells across the entire state are going to be screened? Too much well screen can allow cross contamination between aquifers and/or dilution of contaminant levels. It appears that this rule is trying to cover too much territory without the implications being thoroughly researched.

(7)(b) Requiring the operation, maintenance and monitoring of a cleanup system for 90 days after attaining preliminary compliance is unreasonable and will cause unnecessary expense. The operator should be allowed to

shut the system down whenever preliminary compliance is attained.

(8)(a) By not including the preliminary compliance sampling event as part of the four quarters of compliance monitoring, the DEQ is actually requiring five monitoring events once the site is clean. The minimum additional monitoring costs for PAHs alone for a site with 3-4 monitoring wells would be $12,000 to $14,400 for analytical costs. Added to this would be at least $20,000 in consultant services for; measuring, purging and sampling; handling and disposal of purged water; and preparing quarterly and final reports. For a small cleanup where tank overfills resulted in minor contamination, the compliance monitoring could amount to a disproportionate amount of the total cleanup costs. This is and example of how this rule will not result in any improvement to human health or the environment but will only divert funds that could be better spent on correcting real problems. The requirements for site closure should be determined on a site-by-site basis using general guidelines.

(8)(b) This paragraph authorizes the DEQ to arbitrarily require unlimited cleanup for no reason defined in the rules. If the DEQ can not spell out the circumstances under which continued treatment will be required after the cleanup levels have been achieved, then a paragraph such as this should not be here.

In conclusion, we urge the DEQ not to approve these proposed rules until such time as they can be made more workable.

Sincerely,

Fred Proby
Environmental Specialist

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INDEX TO WRITTEN COMMENTS

April, 1992

a dec

April 7, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 S.W. Sixth Avenue
Portland, Oregon 97204

Dear Sirs:

Re: Proposed Amendments to Underground Storage Tank Cleanup Rules

I would make the following suggestions relative to the proposed amendments:

1. 340-122-242 (1)(a)

   The sentence indicating that additional monitoring while may be required should be modified to indicate that the requirement will be by the department. I do not see a (b) following this paragraph. Is that the paragraph which is now designated "note?"

2. 340-122-242 (2)(b)

   It is unclear what site conditions could warrant more or less frequent sampling. It would be helpful if this section were expanded to provide additional guidance.

Respectfully submitted,

Alan L. Steiger
Director of Finance

ALS/gw

I-102

2601 CRESTVIEW DRIVE, NEWBERG, OR 97132-9257 • POST OFFICE BOX 111, NEWBERG, OR 97132-0111
TELEPHONE 503/538-9471 • TELEX 4970448 • FAX 503/538-5911

ATEC Environmental Consultants
Division of ATEC Associates, Inc.
9498 S.W. Barbur Boulevard, Suite 305-O
Portland, Oregon 97219
[503] 452-1571, FAX # [503] 246-0508

April 16, 1992

Mr. Alan D. Kiphut
Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, Oregon 97204

RE: Comments on Revised Proposed Regulatory Amendments; OAR 340-122-205 through 360, Groundwater Cleanup Standards at Leaking Underground Storage Tank Sites

Dear Mr. Kiphut:

Once again, thank you for the opportunity to provide comments to the Oregon Department of Environmental Quality (DEQ) on the revised proposed regulatory amendments to OAR 340-122-205 through 360, Groundwater Cleanup Standards at Leaking Underground Storage Tank Sites. The Department has committed much of your time and effort, and several of your colleagues, in an effort to address comments and questions submitted by interested parties following the initial round of public comments in December, 1991 and January, 1992. These efforts are very much appreciated.

I have enclosed for your reference a copy of my comments submitted to the DEQ in a letter dated January 30, 1992. Although I acknowledge the DEQ's recent efforts, the recommendations contained in my January comments have not changed. These are:

1) Delay further consideration of the proposed revised amendments until additional appropriate information, including in-the-field conditions at LUST sites in Oregon and throughout the country, has been gathered and evaluated. [This is particularly critical given the complexity of the issues under consideration and the resource/time constraints facing the regulated community regarding response to the proposed revised amendments.]

2) Form a Working Group, including representatives from applicable interested parties and DEQ staffpeople, to evaluate collected information and generate opinions and recommendations.

As our comments will illustrate, we believe that a demonstration of need regarding additional sampling requirements has not been provided. This demonstration of need must be conclusively proven before this revised proposed amendments package can go forward.

The following comments focus on technical and implementation issues associated with the revised proposed amendments. In the larger context of public policy making, environmental cleanup standards should be tied to a groundwater classification system that identifies potential or actual potable water supplies versus areas that are unsuitable for development as domestic water sources. This is critical, especially given limited private, and public, resources.

Proposed Standards

In the revised proposed amendments package, the DEQ included information on concentrations of Polynuclear Aromatic Hydrocarbons (PAHs) in groundwater at ten Oregon Leaking Underground Storage Tank (LUST) sites. These results indicate, in general, that napthalene appears to be the PAH constituent most likely to be detected. While this information is based on results from only nine sites, napthalene is the most soluble constituent (by a factor of between approximately 10 and 100,000 compared to the remaining PAH constituents) and, thus, would be most likely to solubilize as a result of a petroleum release.

Attached in its entirety is a report completed in December, 1987, that examines the potential hazards associated with No. 2 diesel. The report indicates that the relative concentrations in No. 2 diesel of the sum of the toluene, ethylbenzene, and xylenes constituents and napthalene are roughly equivalent. If napthalene is determined to be the PAH constituent of concern, then the physical properties of napthalene may allow a common analytical method for Benzene, Ethylbenzene, Toluene, and Xylenes (BTEX) and napthalene. Also, the physical properties of the two-ring napthalene molecule may make this compound amenable to cleanup approaches used for BTEX.

The attached report also contains data from several professional studies regarding relative concentrations of total PAH constituents in No. 2 diesel. These data suggest that total PAH concentrations are in the range of one per cent or less in No. 2 diesel. Given the relatively low water solubilities of PAH constituents, these data tend to support the conclusion that PAH sample collection and analysis may not be required at diesel LUST sites.

A Portland-area analytical laboratory, NET Pacific, Inc., has initiated an analytical evaluation of the relative PAH concentrations contained in an Oregon DEQ Laboratory diesel

standard. While these results are not available for submittal during this public comment period, this approach will assist in determining the theoretical basis for demonstrating the need for PAH analyses at diesel/heavy fuel LUST sites. Indeed, these and other confirmatory analyses should have been conducted by the DEQ's Laboratory prior to promulgation of the proposed amendments.

Further evaluation of the limited site data provided in the revised proposed amendments package indicates that carcinogenic PAHs appear less likely to be present in the groundwater at LUST sites. Again, since none of the listed carcinogenic PAH solubilities exceed 14 parts per billion (ppb), and drop as low as 0.5 ppb, this conclusion appears reasonable.

Given the generally low water solubilities of PAHs, it is possible that these compounds will solubilize in groundwater only under unusual circumstances, such as when significant free product is present floating on the water table.

Again, this points to an inherent weakness in interpretation of the site data provided by the DEQ. Site conditions are not provided, including presence/absence of free product, soil concentrations of contaminants at the soil/groundwater interface, etc. Without this information, it is very difficult, if not impossible, to conclude whether these data support the DEQ's proposals for PAH sample collection/analysis, or contradict these proposals.

In addition to providing assistance in establishing a theoretical support of need, the DEQ Laboratory should also have proceeded with collection and analysis of groundwater samples at gasoline and diesel LUST sites in an effort to demonstrate need for additional sampling requirements through real-world data. As noted further in these comments, the demonstration of need must be grounded in either (and preferably, both) a theoretical or empirical framework. At this juncture, neither has been established.

Finally, examination of the proposed standards reveals that several of the listed groundwater cleanup levels for non-carcinogenic PAHs are above their water-based solubility levels. These include:

Constituent	Proposed Cleanup Level	Solubility*
Anthracene	2,100 ppb	45 ppb
Fluoranthene	280 ppb	260 ppb
Pyrene	210 ppb	132 ppb

Because these solubility levels are significantly below acceptable health-based proposed cleanup levels, and regardless of the final disposition of the need for PAH analysis, these three constituents should be removed from inclusion in the groundwater cleanup table in the revised proposed amendments.

Comparable State Programs

While we understand that DEQ policy/regulatory activities are not limited to comparison to existing, comparable state efforts, these comparisons are likely to provide valuable insight into the validity and feasibility of regulatory approaches, particularly the establishment of standards. The DEQ needs to continue to gather information regarding other states that are considering, or have implemented, LUST-specific sampling scenarios that include PAH or additive (i.e., Ethylene DiBromide/EDB or Ethylene DiChloride/EDC) sample collection/analysis requirements.

Even more importantly, the DEQ must conduct a thorough review of other state programs that have considered, and subsequently rejected, these analytical requirements. It is not beyond the realm of possibility to imagine that other states have considered these problems, and have concluded that the costs associated with

PAH/additive analyses are not justified given any number of criteria (e.g., physical parameters of PAHs/additives, 'real-life' field data that indicate an absence of impact, etc.). This information is critical to informed decision making.

Criteria Setting

DEQ has developed several soil concentration criteria values that 'trigger' subsequent PAH/additive analyses. These soil trigger values are based on Total Petroleum Hydrocarbon-Gasoline (TPH-G) or TPH-Diesel (TPH-D) concentrations. Interestingly, these trigger

* From various sources, professional papers/presentations.

values conform to the most stringent soil cleanup levels for gasoline and diesel contained in the DEQ's Numeric Soil Cleanup Levels for Motor Fuel and Heating Oil (OAR 340-122-305 through 360). It is commendable that the DEQ is attempting to provide additional site-specific triggers prior to a blanket requirement for PAH/additive analyses, but it is very important that interested parties be given an opportunity to review the DEQ's methodological approach to establishing these levels.

For example, once an opportunity to review this approach(s) has been offered, and this approach is deemed necessary, perhaps a more reasonable alternative might be discovered (e.g., trigger levels based on health-based, surrogate TPH concentrations in groundwater).

Costs

Several issues appear unresolved in Attachment C, "Fiscal and Economic Impact Statement" contained in the revised proposed amendments package. Most importantly, the DEQ's consideration of changes in cleanup costs does not appear to realistically evaluate the impact of local and other state agency decision making on cleanup options. It seems unrealistic to assume, for example, that local wastewater treatment plants will uncritically accept wastewater from a LUST site with varying levels of PAHs/additives. Further, other state programs (or even other programs within DEQ) may impose their own discharge standards on UST owners/operators. These potential impacts require additional consideration, if only to attempt to identify potential problem areas.

In addition, the universe of potential sites falling under the PAH/additive sampling requirements will probably be larger than estimated in Attachment C. This may occur due to several factors, including more accurate record-keeping, heightened sensitivity to these sampling requirements, and upcoming upgrade/replacement activities due to be initiated between 1992 and 1994 (a consequence of Senate Bill 1215).

Conclusions

It appears clear that additional evaluation of the needs and circumstances surrounding PAH/additive analyses at LUST sites is required. This is critical given the following factors:

1) 'Real-life' site data relating revised proposed standards to actual field conditions either is presently unavailable or has not been provided to interested parties. This information is critical to development of a defensible, appropriate regulation.

2) An accurate picture of current or past consideration of these issues by other states does not appear available. This information would provide a valuable perspective on the viability and applicability of the revised proposed amendments.

3) Interested parties have not had the opportunity to provide more than a cursory evaluation of the various DEQ methodologies for establishing several regulatory criteria, including soil 'trigger' levels.

4) The Fiscal and Economic Impact Statement included in the revised proposed amendments package does not appear to adequately address several significant concerns, most importantly including potential future cleanup costs.

Recommendations

As previously emphasized, we believe that the revised proposed amendments require significant additional study and evaluation. The regulated community, consulting groups, and other interested parties are available to assist the DEQ in an effort to demonstrate the need, in particular, for additional sampling requirements. In the interest of implementation of sound regulatory policy, and involvement of various parties, DEQ should form a Working Group of interested parties that will assist in developing a cohesive and consensual regulatory package.

Thank you again for the opportunity to provide comments on the proposed amendments. I am looking forward to working with you and others to respond to our concerns.

Very truly yours,

ATEC ASSOCIATES, INC.

Christopher C. Wohlers
District Manager

Attachments

ATEC

DEQ NOTE: The complete copy of this report submitted by Chris Wohlers of ATEC Environmental Consultants is found in Attachment J and is on file at the Department and available upon request.

ANALYSIS OF THE POTENTIAL HAZARDS POSED BY NO. 2 FUEL OIL CONTAINED IN UNDERGROUND STORAGE TANKS

Prepared for:

The Oil Heat Task Force, a
Coalition of Fuel Oil
Marketing Associations

Prepared by:

ENVIRON Corporation
Washington, DC

December, 1987

For further information, contact Robert Wenger, Robert Powell, Ph.D., or Resha Putzrath, Ph.D. at ENVIRON (202) 337-7444

ATEC Environmental Consultants
Division of ATEC Associates, Inc.
9498 S.W. Barbur Boulevard, Suite 305-O
Portland, Oregon 97219
[503] 452-1571, FAX # [503] 246-0508

January 30, 1992

Mr. Alan D. Kiphut
Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, Oregon 97204

RE: Comments on Proposed Regulatory Amendments; OAR 340-122-205 through 360, Groundwater Cleanup Standards at Leaking Underground Storage Tank Sites

Dear Mr. Kiphut:

Thank you for the opportunity to provide the Oregon Department of Environmental Quality (DEQ) with comments on the proposed regulatory amendments to OAR 340-122-205 through 360. We appreciate and acknowledge the effort that you, your colleagues, and the Environmental Cleanup Advisory Committee (ECAC) have devoted to preparation of the proposal package. These proposed amendments will have far-reaching impacts on UST owners and operators; the opportunity to provide constructive input is, therefore, critical and greatly appreciated.

The proposed amendments address several areas that will affect characterization and cleanup at Leaking Underground Storage Tank (LUST) sites, including proposed cleanup standards for various compounds in groundwater, sampling frequency and analytical methods, etc. The following comments address several of these specific areas.

Background

Certainty and consistency in the petroluem UST cleanup process appear to have been a major objective underlying preparation of the proposed amendments (see Attachment B, "Statement of Need for Rulemaking," Proposal Package). Achieving certainty and consistency is a goal of all interested parties involved in LUST sites; however, while the goal is shared, the means of achieving that goal vary among the parties. It is our observation that many UST owners and operators feel that the proposed groundwater cleanup standards go beyond a reasonable level of analysis and cleanup. Therefore, these parties might more fully support consistency but with fewer and less expensive compounds targeted for collection and analysis.

Proposed Standards: Compounds

Current DEQ regulations require collection and analysis of several types of compounds associated with soil and/or groundwater contamination at LUST sites. In particular, OAR 340-122-340 specifically identifies Total Petroleum Hydrocarbons (TPH), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and waste oil UST-specific analyses that must be completed under various scenarios at LUST sites. With the exception of the 'fast-track' soil matrix standards for TPH (OAR 340-122-335), current DEQ UST regulations do not specify cleanup levels for the compounds noted in this paragraph.

The proposed regulatory amendments establish groundwater standards for several classes of compounds, including BTEX, Polynuclear Aromatic Hydrocarbons (PAHs), Ethylene DiBromide (EDB), Ethylene DiChloride (EDC), and lead. It is not clear that these analyses are appropriate in all, or potentially any, circumstances at LUST sites. The proposal package references an article indicating that PAHs are frequently found in groundwater contaminated by petroleum releases (Attachment F, "Background and Advisory Committee Recommendation"). The article, however, presents data derived from laboratory experiments involving conditions presumably never encountered in the field (e.g., ground water temperatures between 75 and 80 degrees Farenheit, continuous agitation over a 24 hour period, etc.) It is difficult to conceive that these data could be extrapolated to describe field conditions, and particularly, the 'frequent' presence of PAHs in ground water at petroleum release sites.

The proposal package further references several states that may have adopted cleanup standards for compounds included in Oregon's proposed amendments. For example, apparently Washington, New York, and South Dakota have promulgated cleanup standards for EDB and EDC, while Washington, New York, Michigan, Minnesota, and South Dakota have addressed PAHs. Our initial research indicates that additional interpretation of these states' regulatory requirements would be in order. For example, WAC 173-340-720 ("Ground water cleanup standards") defines Method A cleanup levels for EDB (30 ug/L) and carcinogenic PAHs (0.1 ug/L), but does not include a EDC standard as indicated in the proposal package. In addition, the applicable concentrations included in WAC 173-340-720 do not appear to reflect those concentrations listed in Attachment F.

A more significant issue involves the applicability of conducting collection and analysis for compounds listed in Attachment F. In Washington, for example, the Department of Ecology (DOE) has prepared a document titled "Guidance for Site Checks and Site Assessments for Underground Storage Tanks," (DOE, February, 1991) in which required compound analyses include TPH, BTEX, and total lead, but not EDB, EDC, or PAHs. Minnesota's Pollution Control Agency has promulgated what appear to be recommended compound analyses for soil and ground water at LUST sites ("Soil and Ground Water Analysis at Petroleum Release Sites," Minnesota Pollution Control Agency, May 1991). EDB, EDC, and PAHs are not required for collection and analysis for either soil or ground water.

In summary, an analysis of states referenced in Attachment F as having promulgated EDB, EDC, and PAH standards indicates that additional investigation is required. It appears likely that while some congruent groundwater standards may have been promulgated in these states, it is also apparent that EDB, EDC, and PAH groundwater sample collection and analysis are not typically required at LUST sites in other states.

The proposal package does not include field data that indicate the presence of gasoline additives and PAHs at LUST sites, either in Oregon or other states. We believe it is critical that regulatory requirements for sample collection and analysis of specific compounds should be directly related to field data indicating the presence or absence of the targeted compounds at LUST sites. These data, ideally, should be collected in the state of Oregon, or if not available, from other states that presumably have collected these data under comparable field conditions.

Proposed Standards: Site Conditions

The proposed amendments require site-specific compound analyses (e.g., BTEX at gasoline release sites) and compound-specific analyses (e.g., EPA Method 8310 for PAHs). If field data confirm the potential for proposed compound analyses, additional site-specific criteria may further control expanding analytical costs. For example, if additional data evaluation indicates that PAHs are typically detected only when free product is present at the water table, then PAH sample collection and analysis might realistically be limited to monitoring wells where free product is identified.

Proposed Standards: Frequency of Sample Collection/Analysis

Prior to site closure, the proposed amendments require acceptable results (i.e., compound concentrations at or below proposed standards) from a full year of quarterly sampling/analysis at site monitoring wells. However, if a clear groundwater gradient is established and verified at each quarterly sampling event, it may be acceptable only to collect samples for semi-annual or annual analyses at upgradient monitoring wells. This approach would provide the DEQ with necessary downgradient information, would reduce site costs for the UST owner/operator, and may reasonably be expected to protect public health and safety and the environment.

Proposed Standards: Indicator Compounds

If an evaluation of field data indicates the need for generic or site-specific compound analyses, it is possible that indicator compounds may be utilized to demonstrate initial cleanup effectiveness. For example, if PAHs in groundwater appear to be associated with free product, a TPH indicator concentration may be appropriate as a surrogate measure for PAHs. This approach would allow for measurement of a well-understood compound, would reduce analytical costs, and could be based on a scientific assessment of relative conentration ratios (i.e., TPH to PAHs in ground water at LUST sites).

Projected Costs

Attachment C, "Fiscal and Economic Impact Statement," appears to underestimate the impact of costs associated with the proposed amendments, particularly increased analytical costs. It is our experience in Oregon that LUST sites where ground water is impacted typically involve between six and 12 monitoring wells. If we assume nine wells as an arbitrary average, and the worst-case scenario of a gasoline/diesel release, additional analytical costs for lead, EDB, EDC, and PAHs will require a minimum of approximately $400 per monitoring well. This cost, multiplied by nine monitoring wells and by four quarters of sampling and analysis, would require a minimum of an additional $14,400 per year in analytical costs, or $43,200 per three-year period. This is three times the three-year period cost of $14,400 referenced in Attachment C.

Further, most UST owners and operators have multiple sites. Mid to large-size petroleum jobbers may have as many as ten sites in characterization/remediation at any one time. If ten sites are in the worst case, gasoline/diesel scenario, additional costs for a single UST owner/operator may exceed $145,000 per year. The major oil companies may have four to five times this number of active characterization/remediation sites. Thus, additional analytical costs under the proposed amendments could have an overwhelming impact on all categories of UST owners/operators.

Finally, Attachment C does not address the potential for additional costs associated with remediation of heavy compounds like the PAHs. These compounds would presumably not be amenable to traditional volatile petroleum product remediation technologies (e.g., air stripping towers, etc.). Thus, an economic impacts analysis would need to address the additional costs associated with cleanup options for these heavier compounds.

Recommendations

Given the issues raised above, we present the following recommendations regarding proposed amendments to OAR 340-122-205 through 360:

1) Delay further consideration of the proposed amendments until additional appropriate information, including in-the-field conditions at LUST sites, has been gathered and evaluated.

2) Form a Working Group, including representatives from applicable interested parties and DEQ staffpeople, to evaluate collected information.

If representative, in-the-field data are not readily available to DEQ, it is our understanding that UST owners/operators, consultants, and other parties in Oregon will work cooperatively with the DEQ to develop an appropriate database.

Thank you again for the opportunity to provide comments on the proposed amendments. I am looking forward to working with you and others to respond to our concerns.

Very truly yours,

ATEC ASSOCIATES, INC.

Christopher C. Wohlers
District Manager

Bimor

BI—MOR STATIONS, INC.
P.O. Box 1220 1890 S. Pacific Highway
Medford, Oregon 97501 (503) 772-2053

April 16, 1992

OREGON DEPT. OF ENVIRONMENTAL QUALITY
811 S. W. 6th Avenue
Portland, OR 97204

Attn.: Lon Revall, ECD.

Re: Proposed Amendments to
Underground Storage
Tank Cleanup Rules

I would like to forward my comments on your new proposed ground water cleanup standards. I feel the existing rules and cleanup standards are more than adequate for our industry, especially at our level of operation.

The small businessman will, again, be saddled with more costly regulations that continuously eat up our chance for survival. Adapting regulations to cover all levels of cleanup will create unnecessary spending. Each cleanup incident should be covered on an individual basis since each one occurs under different circumstances and has different results. I feel they should all be addressed on an individual basis for necessary cleanup.

Respectfully,

BI-MOR STATIONS, INC.

By _____
Michael J. Moran

MJM:blw

I-116

C R A I G O I L I N C.

C

109 Burkhart SE • Albany, OR 97321 . (503)967-8380

April 14, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 SW Sixth Avenue
Portland, OR 97204

RE; Public Hearing

To whom it may concern:

I am writing to you because we can't be present at the public hearings scheduled for April 16, 1992 in Portland,OR or in Eugene, OR.

As a representative for our company (Craig Oil, Inc.) we strongly oppose the proposed rule amendments that are designed to clarify the cleanup goals. We also oppose the Department of Environmental Quality for proposing amendments to the UST cleanup rules to provide optional numeric cleanup standards and delineate the groundwater cleanup process associated with petroleum UST releases.

We would like it documented that we do **NOT** agree with what the DEQ is trying to do to the environment.

Sincerely,

Diane L Craig
owner

Elliott, Powell, Baden & Baker, Inc.

April 16, 1992

Insurance

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED:
APR 17 1992
ENVIRONMENTAL CLEANUP DIVISION

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 S. W. Sixth Avenue
Portland, Or. 97204

RE: Comments on OAR340-122-205 Through 340-122-360

Gentlemen:

I have been asked to express my opinion on cleanup standards and will make it simple and to the point.

Insurance premiums are based on claims frequency and severity. The more stringent you make cleanup standards that really aren't necessary, the more costly Underground Tank Insurance will become. We have seen this proven in California where costs are presently three to four times what they are in Oregon.

U.S.T. owners can only stand so much regulation and then at some point we the customers will pay. I don't wish to pay at the pump for your over reaction.

It would be my suggestion that you look closer at the steps you are taking as being over regulated is not good.

Sincerely,

Neil W. Baker

Neil W. Baker
ELLIOTT, POWELL, BADEN & BAKER, INC.

NWB/mm

I-118

YOUR Independent Insurance AGENT

1721 S.W. Salmon Street Portland, Oregon 97205-1783 Phone: 227-1771

ESTACADA OIL CO.

MOBIL OIL DISTRIBUTOR

BOX 666 ESTACADA, OREGON 97023 PHONE 630-4163

Mobil

Mobilheat

April 16, 1992

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED:
APR 17 1992
ENVIRONMENTAL CLEANUP DIVISION

Department of Enviornmental Quality
Environmental Cleanup
UST Cleanup Section
9th Floor
811 S.W. 6th Av.
Portland, Or. 97204

Dear Sirs:

In reguard to your hearing tonight, we believe we need more time to study the proposal and respond in an apporpriate manner. Every rule and regulation just adds more burden to those people trying to do business.

Sincerely,

Karmen Bresko

Karmen Bresko
Estacada Oil Co.

I-119

FERRERO GEOLOGIC • 340 AVERY STREET ASHLAND, OREGON 97520 503-488-2452

To: Alan Kiphut
Environmental Cleanup Division
UST Cleanup Section, Oregon DEQ
811 SW 6th
Portland, Oregon 97204

Date: April 10, 1992

Subject: State Laws regarding the public practice of geology and their application to WRD and DEQ regulations.

New and proposed regulations regarding monitoring wells, piezometers, borings and excavations by the Oregon Department of Water Resources, and current regulations of the Oregon Department of Environmental Quality relate directly to the public practice of geology. Geologists regularly use excavations, borings, piezometers and monitoring wells to collect subsurface data. DEQ regulations deal with contamination and clean-up of soil, rock and groundwater.

Section 8, chapter 685, Oregon Laws, 1989, ORS 672.505 (Definitions) states that "Geology' refers to that science which treats of the earth in general; investigation of the earth's crust and the rocks and other materials which compose it; and the applied science of utilizing knowledge of the earth and its constituent rocks, minerals, liquids, gases, and other materials for the benefit of mankind." It also states "Public practice of geology' means the performance of geologic service or work for the general public. This includes consultation, **investigation,** surveys, evaluation, planning, mapping and inspection of geologic work, in which the performance is **related to public welfare** or safeguarding of life, **health,** property and the environment except as specifically exempted by ORS 672.505 to 672.705'. ORS 672.525 states that "No person, other than a registered geologist, a registered certified specialty geologist or a subordinate under the direction of either, shall provide or prepare for the public practice of geology any geologic maps, plans, reports, or **documents** except as specifically exempted in ORS 672.535'. ORS 672.535, Exemptions from ORS 672.505 to 672.705 says generally that only teachers, US Government employees and subordinates to registered geologists are exempted from the above statutes.

As defined by the Oregon Laws, planning, design and supervision of excavations, borings, piezometers and monitoring wells to gather soil, rock and/or groundwater data is geology. By the

FERRERO GEOLOGIC • 340 AVERY STREET ASHLAND, OREGON 97520 • 503-488-2452

same laws, the evaluation of soil, rock and groundwater conditions relating to subsurface contamination and clean-up is also geology. Both activities fall under the definition of the public practice of geology and require state registration as a geologist.

Neither the WRD or DEQ rules state that these activities must be done or reviewed and signed-off by a Registered Geologist. Stated or not, the laws are in place and should be enforced. The WRD cannot approve any monitoring well reports (start cards or abandonment forms) and the DEQ cannot approve any environmental site assessment reports involving soil, rock or groundwater contamination without violating Oregon laws.

WRD and DEQ should acknowledge the Oregon State Laws regarding geologic practice in their regulations, and require a Registered Geologist's stamp on all monitoring well forms and environmental reports. The regulations should stipulate that the Registered Geologist must have demonstratable knowledge and experience in applicable technical areas (as per OAR 809-20-006) and that the Registered Geologist must have all applicable licenses and bonds required by WRD and DEQ relating to monitoring wells and environmental activity (eg. UST Supervisors license, etc.). Though not specifically mandated by law, the WRD and DEQ would further assure that geologic consultants are qualified to do monitoring well and environmental work by requiring a Certified Engineering Geologist to sign-off on well forms and site assessment reports.

Sincerely,

Tom Ferrero, CEG, Oregon

cc: AEG, WRD, DOGAMI, Or. St. Brd. Geol. Exam.

I-121

April 9, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 S.W. Sixth Avenue
Portland, Oregon 97204

RE: Comments on OAR 340-122-205 through 340-122-360

Gentlemen,

As a member of the regulated community and a member of the Environmental Cleanup Advisory Committee since its inception, I am submitting comments to the D.E.Q. on the above referenced rule and on Attachment 'C', Fiscal and Economic Impact Statement. My comments are as follows:

1. OAR 340-122-242 (3)(a)(A) - The Department needs to define, in the rule or through guidance, the method to be used to determine what is meant by, "at or below the seasonal high water table."
2. OAR 340-122-242 (3)(a)(B) - The last sentence of (B) should have the word "groundwater" inserted after the word, "Any." Further, this sentence is very confusing in that I believe the detection limit of at least 0.5 ppm is discussing the detection limit of the test method utilized and not the level of contaminate detected. This issue requires clarification and simplification.
3. OAR 340-122-242 (3)(a)(C) - "At or below the seasonal high water table" needs clarification as in comment #1 above.
4. OAR 340-122-242 (3)(a)(D) - In line four of this section the word "leaded" should be inserted prior to the word gasoline.
5. OAR 340-122-242 (3) and (4) - I have a number of concerns with regard to PAH and gasoline additive cleanup levels proposed in this section. D.E.Q. has not provided the Environmental Cleanup Committee or the regulated community with background information on the levels chosen or the appropriateness of the "trigger levels" which the rules embrace. D.E.Q. has not provided information from other states which discuss PAH/additive analysis or the approaches taken on these constituents.

I-122

HARRIS OIL COMPANY
1776 SW MADISON STREET, SUITE 300, PORTLAND, OREGON 97205-1788
PHONE (503) 222-4201
WATS 800-288-4201
FAX (503) 222-2093

The hearings package includes laboratory reports where these constituents have been detected but fails to provide information as to whether site conditions met the free product or 100 ppm TPH levels discussed in 340-122-242 (3)(a)(A), (B), (C) and (D). As such, it is impossible to determine if the criteria proposed by D.E.Q. in 340-122-242(3)(a)(A), (B), (C) and (D) are the appropriate site factors. It would be appropriate for the Department to reveal its basis for the selection of the site criteria to the Environmental Cleanup Advisory Committee and to the regulated community so that it can be reviewed for technical merit.

6. OAR 340-122-242 (8)(a)(A) - The last sentence states that all contaminants of concern are to be included in the analysis for preliminary compliance. This is not consistent with 340-122-242 (b)(D) which states that only contaminants of concern <u>found during the initial investigation</u> need to be analyzed to confirm preliminary and final compliance. OAR 340-122-242 (8)(a)(A) should be modified in line with 340-122-242 (b)(D).
7. OAR 340-122-242 (10)(b)(C) - This portion of the rule states that water elevation measurements from each monitoring well need to be taken and reported to the Department. This conflicts with 340-122-242 (2)(c) which allows for a reduced number of water elevation measurements in some cases. OAR 340-122-242 (10)(b)(C) needs to be modified to be consistent.
8. OAR 340-122-242 (6) - The last sentence of this section states that analysis for PCBs is required for waste oil contamination from tanks located at facilities other than a retail gasoline facility. I assume the Department is taking the position that waste oil not used in automotive engines, including trucks, farm equipment, boats, construction equipment, etc., do not pose a PCB risk, which is true. The rule requires modification which clearly states that waste oil contaminations from sources which commonly contain PCBs require the analysis rather than by excluding only tanks at retail gasoline facilities.
9. With the rule packet I also received a paper entitled "Gasoline Additive Cleanup Criteria" which discusses cleanup technologies in its last section. The department states, "Treatment of these compounds may not be necessary in a typical pump and treat operation since discharge permits do not require they be monitored. Also, the mobility of inorganic lead compounds is such that cleanup may not even be necessary." If cleanup may not be necessary why is the regulated community required to perform expensive testing and monitoring of these compounds? It appears that D.E.Q. is attempting to implement a field research experiment at the expense of the regulated community which I believe is well beyond the scope of public policy.

Further, the Department position with regard to PAHs and gasoline additives appears to make assumptions regarding local and state discharge requirements. The D.E.Q. staff for the Environmental Cleanup Advisory Committee have not made us aware of their discussions and findings on discharge issues which support these assumptions. Discharge permit requirements need to be resolved prior to any rule implementation.

10. Attachment 'C', Fiscal and Economic Impact Statement - The basic premise of Attachment 'C' is flawed in a number of ways. Paragraph three is not on point since it implies that the impact of these rule changes impacts only a small fraction of sites with groundwater contamination. The real issue is what is the economic impact at sites which <u>are</u> affected. It is already obvious to most readers of the rule package that the economic impact at sites which are not affected is zero. The inclusion of unaffected sites in the economic impact study merely serves to artificially try to spread the costs over all sites in Oregon.

Paragraph four is at least more on point with regard to the sampling costs of impacted sites. The Department states that, "Costs could range from $3,000.00 to $12,000.00." What is not identified is the time period over which these costs would be incurred, however, utilizing the six wells at $200.00 per sample example one can presume this represents somewhat more than two quarterly sampling events up to ten quarterly sampling events. The rationale for this range is not identified by D.E.Q. I am not aware of any groundwater cleanups which have been completed in two quarters and, as such, would submit that this cost estimate is not valid.

Paragraph four also states that the Department might allow TPH to serve as an indicator compound for certain sampling events. We would strongly endorse this approach since it would significantly reduce sample collection and testing expenses. Further, if TPH is an indicator compound for PAHs and/or gasoline additives we believe that testing for PAHs and additive should only be required during the initial investigation phase and to demonstrate final compliance. This would reduce costs and still maintain the environmental goals of the program.

Paragraph five, which is on page two, discusses analytical costs for additive testing. Since additive testing represents 75 percent of the cost of PAH testing, then testing six wells (as suggested in the PAH example utilized by the Department) would cost $900.00 per sampling event. D.E.Q. states that it is rare to have PAHs and additives at the same location but has not advised the regulated community or the Environmental Cleanup Advisory Committee how this conclusion is reached.

As such, we have very little to go on to evaluate the economic impact of PAH and additive testing. Additionally, the Department does not address costs associated with the cleanup of these constituents other than to state cleanup may not be required as previously discussed in these comments. Since the cost of testing is basically unknown and the cost of cleanup is not discussed it does not appear that Attachment 'C' has done an adequate job of dealing with the real impact of the proposed rule change.

I would propose that OAR 340-122-205 to 340-122-260 not be forwarded to the Environmental Quality Commission until such time as the Department reveals the technical underpinnings for the PAH and gasoline additive testing and cleanup theories to the regulated community. Further, that action on the rule be delayed until such time as the Department can more clearly identify the economic impact of the proposed rules.

Respectfully Submitted,

David L. Harris

R. W. HAYS Co.

PETROLEUM PRODUCTS

P.O. BOX 458
1890 S. PACIFIC HWY.
MEDFORD, OREGON 97501
(503) 772-2055

April 16, 1992

OREGON DEPARTMENT OF
ENVIRONMENTAL QUALITY
811 S. W. 6th Avenue
Portland, OR 97204
FAX #229-6124

Attn.: Lon Revall, ECD

Re: Proposed Amendments to
Underground Storage
Tank Cleanup Rules

I would like to forward my comments on your new proposed ground water cleanup standards. I feel the existing rules and cleanup standards are more than adequate for our industry, especially at our level of operation.

The small businessman will, again, be saddled with more costly regulations that continuously eat up our chance for survival. Adapting regulations to cover all levels of cleanup will create unnecessary spending. Each cleanup incident should be covered on an individual basis since each one occurs under different circumstances and has different results. I feel they should all be addressed on an individual basis for necessary cleanup.

Sincerely,

HAYS OIL CO.

By _____
Robert W. Hays

blw

I-126

Hawk Oil Company

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

EXXON

April 13, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 S.W. Sixth Avenue
Portland, OR 97204

RE: Comments on OAR 340-122-205 through 340-122-360.

As a Past President and active member of the Oregon Petroleum Marketers Association, and a member of the regulated community, I wanted to submit some comments regarding your revised groundwater cleanup rules.

First, I want to thank you for your considerations, and the revisions you have proposed. We continue to hope that DEQ and OPMA can work together on these very difficult issues.

I have enclosed a copy of my January 21st letter, for there is no sense repeating these comments, yet most of my concerns remain unchanged.

As mentioned before, the regulated community desperately needs substantially more time to respond to these proposed rules. Alan Kiphut, and his UST Cleanup Section have all the background information, and obviously had a couple of months to dedicate to the revision of these groundwater rules. Petroleum marketers, other members of the regulated community, and our environmental consultants, have tremendous other time requirements, and there is simply no way we can reasonably respond to the adjusted proposed amendments in a few weeks. These time concerns have been well communicated to DEQ before. Is DEQ rushing these proceedings, to purposely leave the regulated community in such a weak position? Obviously, we need months, not weeks.

No one wants to retain an attorney to review all the technical and procedural issues involved. I know OPMA wants to continue their cooperative relationship with DEQ. However, the State must realize that the UST regulated community is being rapidly pushed into a corner, that will bankrupt many, and severely damage the financial health of scores of others.

Oregonians must remember that we are one of only fourteen states without an EPA approved cleanup bill, and we have none in sight. It is totally unreasonable for Oregon to try and lead the nation into groundwater cleanup standards, without providing a cleanup fund.

If DEQ wants to lead, why not start by establishing a groundwater classification system, similar to our soil matrix program? It is totally unreasonable to demand tremendous monitoring and cleanup costs, on groundwater not used for human consumption.

Petroleum Marketers are greatly concerned about protecting the environment in our communities also, and most of us have already made some tremendous investments in both cleanup efforts, and upgrading our underground fuel systems.

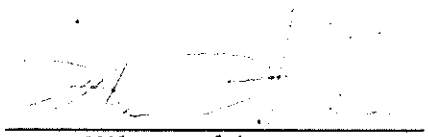
However, when we read articles such as "Toxicological Risk Assessment Distortions" by Dr. Lehr of the American Ground Water Trust, or other scientific papers regarding testing for carcinogens, many begin to question how reasonable some of our existing rules are. I have attached a copy of a U.S. Oil Week article dated April 6th regarding Benzene.

I know others, who are more qualified, will provide some comments concerning technical issues, regarding these groundwater rules. But even those will be quite limited, due to time restraints.

At this point, it is extremely clear that this entire procedure needs to be slowed substantially, to allow the regulated community a realistic amount of time to review these issues, rules, and the Economic Impact Statement. It is totally unreasonable for DEQ to close public hearings and the written comment period in mid April, much less the DEQ rushing proposed amendments to the EQC on June 1st.

It now seems appropriate for the DEQ to schedule some meetings with the regulated community to review these issues, and the testimony to date. I'm sure there are some experts available from the major oil companies, plus some environmental consultants, who would meet with the DEQ, OPMA, OGDA, OHC, and others, to help find the proper solutions to these difficult issues.

Sincerely,



Mike Hawkins

Hawk Oil Company

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

January 21,1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, Oregon 97204

I was very alarmed to read your proposed rules regarding groundwater cleanup standards for petroleum contamination. I was also amazed at the apparent effort to rush these amendments through. Interested parties were certainly not given sufficient notice, to allow them to adequately review the proposed standards, which are extremely complex for a layman. The five 7:00 p.m. hearings and written comment dates were very poorly communicated. It also seems that one section of DEQ is unaware of the tremendous efforts and concerns of other sections.

Many members of the petroleum industry are already working very hard with DEQ, on both cleanups and underground fuel system upgrades.

Oregon is one of only fourteen states without an EPA approved cleanup bill, and we have none in site. The Oregon Petroleum Marketers Association was the primary support for DEQ's S.B.1215, and we still are assisting DEQ's defense of the tank bill, against the Oregon Auto Club. And our members will have the greatest financial burden resulting from 1215. The majors have completed most of their upgrades, for they had the available funding. Oregon plans to provide the greatest level of assistance to the single station operator. It is the distributors who will have the greatest debt load and financial hardship of all. Yet we are the ones who, provided the most support for DEQ's tank bill. If 1215 survives the Oregon Supreme Court, we will still have little to no assistance with cleanups, for 1215 is essentially aimed at upgrading existing underground fuel systems. Obviously, the vast majority of cleanups will be forced into the next three years, which is far more demanding than any other state. We now read, that this same DEQ we have been trying to cooperate with, is trying to establish the most severe groundwater standards in the nation.

I-129

Petroleum marketers are concerned about our environment also. We have assumed numerous facilities from folks that were totally unaware of the potential problems. In reality, all Oregonians should share these costs. We have long enjoyed the availability of petroleum, and these unknown costs were not passed along before.

There are numerous concerns with the groundwater standards and rules.

First, the standards seem far too severe. Apparently, these numbers were backed into from some assumed health base criteria. As pointed out by the American Ground Water Trust and others, there exists substantial questions regarding even risk assessment.

Second, it seems very clear that there should be a groundwater classification system. As we all know from the soil matrix system, substantial amounts of Oregon's groundwater is not used for human consumption. It is totally unreasonable to demand that these waters be cleaned to or above federal drinking water standards. Some of this water is not potable now, for non petroleum reasons.

There are even questions about some of the compounds being analized. For instance, lead could exist naturally at a given site. Will this be a filtered sample, to measure soluable lead only? Why was Toluene dropped to 1,000 from 2,000 ppb? How many of these compounds could be from non petroleum sources? Instead of publishing carcinogenic PAH levels that can't even be measured today, why not wait for the EPA to establish Federal standards? Certainly they can afford to analize these issues more thoroughly than Oregon.

Even some of the policies seem questionable. The sampling requirements are unclear. The quarterly samples may well be too frequent and clearly not all monitoring wells at a site should be followed. Quarterly water elevations would add tremendous costs. Why analize both top and bottom levels? In nearly all cases, we would be concerned with the top only. Follow-up tests should only be for compounds that were originally found.

Once again, Oregon seems to want to lead the nation in regulating away the collection of waste oil, which EPA recognizes will simply encourage more folks to dump their waste oil down the drain.

There seems to be far more questions to review, by folks with more technical knowledge than the typical petroleum marketer. I'm sure the major oil companies would provide some assistance.

We are quite sure that your fiscal and economic impact statement is far too conservative. Possibly the costs of collections and quarterly survey costs were not included. Even assuming just three monitoring wells, would not fit numerous sites.

I realize these rules allow for DEQ to consider less stringent clean-up levels for a particular site. However, established standards are very difficult and costly to bend, and again, all the burden falls on the tank owner.

Clearly, DEQ and the petroleum industry must work together, to try to cleanup these historical problems as quickly and practical as possible. It is certainly not in Oregon's best interest to further jeopardize the financial survival of their distributors, who supply approximately half of Oregon's fuel. Most distributors will have several cleanups or more. Basically, they can't borrow money for cleanups. I doubt that DEQ wants to break the operation on the first cleanup...or the last.

I know all tank owners would join me in strongly requesting that DEQ greatly slow their considerations of these groundwater cleanup standards and rules, and allow for substantial additional review and hearings. It would be extremely unfair to all, to pass this matter to the EQC for final adoption at this time.

Sincerely,

Mike Hawkins

MH:gl

cc: Mr. Fred Hansen
Mr. Richard Reiter
Mr. Byron Peterson
OPMA

Study shows tank regs overkill small problem

Regulators had a scientific study in their hands as early as 1986 showing that the risk to drinking water from toxic benzene in petroleum spills was minimal, *Oil Week* has learned.

The study, combined with more recent research reported by California scientist Dr. Richard Armstrong (*OW 3/30*), provides strong evidence that regulators may have engaged in tank reg overkill in order to prevent gasoline contamination of drinking water.

Gasoline also contains many other unhealthy hydrocarbons, but benzene is the most feared.

Meantime, both U.S. EPA and American Petroleum Institute have begun new evaluation projects to determine how long it takes for gasoline to break down into harmless elements through "passive bioremediation" (*OW 3/16*).

The 1986 study, by California Department of Health Services, revealed that tests of 2,947 water wells believed most likely to be contaminated turned up tiny traces of cancer-causing benzene in **only nine instances.**

In eight of the nine cases, contamination was in the one part per trillion range, according to Steve Shelton, former exec of California Service Station Association. Shelton first published the early study results in a dealer newsletter six years ago.

A one part per trillion rate is calculated to cause one additional case of cancer per one million people who drink two liters of contaminated water per day for 70 years.

Since 250,000 of every one million people are expected to get cancer anyway, the benzene found in the wells would raise the number to 250,001, says Shelton, now a dealer consultant in Mission Viejo, Calif.

The other 1986 case was in the one part per billion range.

Even at that level, breathing the air in Los Angeles over the same time period is 100 times more dangerous than drinking the water, Shelton says.

Early findings suggesting minimal danger to drinking water from benzene were confirmed by later studies, as we revealed last week.

In the most recent studies, California officials checked 7,167 municipal water wells in 1989 and turned up only ten benzene-contaminated sites.

In 1991, a test of 200 home drinking water wells in Santa Clara County found no benzene cases.

So where's the benzene from California's 11,000 reported leaking petroleum tanks?

Probably harmlessly biodegrading in the soil, says ground-water expert Dr. Richard Armstrong, Applied Science and Engineering Inc., Davis, Calif.

Shelton agrees. Benzene appears to have a half-life as short as 10 weeks, he says.

Despite the studies, EPA and the states plunged ahead with a costly batch of tank regs responsible for shutting down as many as 25% of the nation's gas stations since 1989, according to Petroleum Marketers Association of America.

Here's Shelton's theory of how it happened:

Regulators became hypersensitive after being caught off-guard by spills from underground tanks of industrial solvents and chemicals in the early 1980s.

Expecting the worst, regulators ordered studies of benzene contamination from leaking gasoline tanks.

But pushed by lawyers wanting to know who to sue, agencies started to regulate before studies came back.

By the time facts were in, the regulatory train had already left the station.

With it came the start of a $30 billion industry of lawyers, lobbyists, insurers and clean-up companies, all anxious to protect their turf, Shelton says.

While majors deny it, Shelton claims deep-pockets Big Oil urged extra-onerous tank regs, possibly hoping to thin out competition, he says. —*Susan Farrar*

NEWS BRIEFS

Exxon would halt Calif. rebates August 1 but promises substitute program if needed: Current pricing help ranging from guaranteed margins of 5.5 to 9.5¢/gallon for West Coast jobbers who kept pace with Arco will get the axe. However, new rebate scheme would reappear if competitor prices justify new program. Secret deals were first uncovered by *Oil Week* (*OW 5/30/88,11/19/90*).

Ready, set, Citgo: Some 9,500 Boston Marathon runners this year will wear the Citgo flag on their bib-number ID shirts, company says.

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April 14, 1992

Department of Environmental Quality
Environmental Cleanup Division
U.S.T. Cleanup Section, 7th Floor
811 S.W. Sixth Avenue
Portland, Oregon 97204

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED
APR 17 1992
ENVIRONMENTAL CLEANUP DIVISION

Jackson Oil Inc
Greg Jackson, President
P.O. Box 280
Canyon City, Oregon 97820

Dear Sir:

I am writing to you to express my concerns about your revised groundwater cleanup rules. I apologize for the handwritten letter, but I am on a trip and not in my office to have it typed and xerox'd. I am very concerned about the proposed changes. I wanted to get my comments in by the deadline.

As a member of the regulated community I am directly affected by additional monitoring and cleanup costs. We are already under severe financial pressures from existing regulations.

I personally am a small distributor in Eastern Oregon and just finding the financial resources to upgrade my tanks will be a major accomplishment.

Let me state that I am concerned about our environment. But I also feel that the proposed rules changes are far too severe.

Secondly, it is very clear that there should be a groundwater classification system. Let Oregon lead the nation in this procedure. In reality all Oregonians should share the cost of environmental cleanup and monitoring since we all enjoy the availability of petroleum products.

To sum up my concerns, I strongly oppose changes to the existing groundwater cleanup

standards until additional review and hearings are held to see if these changes are really required. If required, then funding these costs should be spread equally among all Oregonians.

Yours truly

Greg Jackson President
Jackson Oil Inc.

JUBITZ®
TRUCK STOP
10210 N. Vancouver Way / P.O. Box 11264 / Portland, Oregon 97211-0264
Phone: 503-283-1111 Fax: 503-286-5665

April 16, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 S.W. Sixth Avenue
Portland, OR 97204

BY MESSENGER

re: Proposed Amendments to Underground Storage Tank Cleanup Rules

Sir/Madam:

This is to confirm our concurrence in the concerns raised by Mr. Mike Hawkins' letter of April 13 regarding adoption of revised groundwater cleanup rules prior to adequate review, which review should include a fair opportunity for the regulated community to respond to DEQ proposals.

We assume as a given that the State's valid concerns as to groundwater quality will ultimately be established as a factor in determining the cost of doing business by the regulated community. This will translate into pass-through costs to consumers. Without adequate review and consideration, the costs to be charged to consumers (and compliance by the regulated community) are subject to excessive speculation leading to potentially wasteful assumptions-- both economically and socially-- by all parties.

This is an area where teamwork between industry and government is essential to minimize unnecessary waste of social and economic assets. The rapidity with which standards are legislated does not equate to their validity.

Sincerely,

Frederick D. Jubitz,
President

cc: Mike Hawkins
Stein Oil Co., Inc.

I-136

Hawk Oil Company

P.O. BOX 1388 • 1060 SO. RIVERSIDE
MEDFORD, OREGON 97501
PHONE 503/772-5275

re Sweet Letter

EXXON

April 13, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 S.W. Sixth Avenue
Portland, OR 97204

RE: Comments on OAR 340-122-205 through 340-122-360.

As a Past President and active member of the Oregon Petroleum Marketers Association, and a member of the regulated community, I wanted to submit some comments regarding your revised groundwater cleanup rules.

First, I want to thank you for your considerations, and the revisions you have proposed. We continue to hope that DEQ and OPMA can work together on these very difficult issues.

I have enclosed a copy of my January 21st letter, for there is no sense repeating these comments, yet most of my concerns remain unchanged.

Need time 2 months not weeks

As mentioned before, the regulated community desperately needs substantially more time to respond to these proposed rules. Alan Kiphut, and his UST Cleanup Section have all the background information, and obviously had a couple of months to dedicate to the revision of these groundwater rules. Petroleum marketers, other members of the regulated community, and our environmental consultants, have tremendous other time requirements, and there is simply no way we can reasonably respond to the adjusted proposed amendments in a few weeks. These time concerns have been well communicated to DEQ before. Is DEQ rushing these proceedings, to purposely leave the regulated community in such a weak position? Obviously, we need months, not weeks.

Cost

No one wants to retain an attorney to review all the technical and procedural issues involved. I know OPMA wants to continue their cooperative relationship with DEQ. However, the State must realize that the UST regulated community is being rapidly pushed into a corner, that will bankrupt many, and severely damage the financial health of scores of others.

Key Point

No Cleanup Fund 36 States have

Oregonians must remember that we are one of only fourteen states without an EPA approved cleanup bill, and we have none in sight. It is totally unreasonable for Oregon to try and lead the nation into groundwater cleanup standards, without providing a cleanup fund.

If DEQ wants to lead, why not start by establishing a groundwater classification system, similar to our soil matrix program? It is totally unreasonable to demand tremendous monitoring and cleanup costs, on groundwater not used for human consumption.

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Petroleum marketers are concerned about our environment also. We have assumed numerous facilities from folks that were totally unaware of the potential problems. In reality, all Oregonians should share these costs. We have long enjoyed the availability of petroleum, and these unknown costs were not passed along before.

There are numerous concerns with the groundwater standards and rules.

First, the standards seem far too severe. Apparently, these numbers were backed into from some assumed health base criteria. As pointed out by the American Ground Water Trust and others, there exists substantial questions regarding even risk assessment.

Second, it seems very clear that there should be a groundwater classification system. As we all know from the soil matrix system, substantial amounts of Oregon's groundwater is not used for human consumption. It is totally unreasonable to demand that these waters be cleaned to or above federal drinking water standards. Some of this water is not potable now, for non petroleum reasons.

There are even questions about some of the compounds being analized. For instance, lead could exist naturally at a given site. Will this be a filtered sample, to measure soluable lead only? Why was Toluene dropped to 1,000 from 2,000 ppb? How many of these compounds could be from non petroleum sources? Instead of publishing carcinogenic PAH levels that can't even be measured today, why not wait for the EPA to establish Federal standards? Certainly they can afford to analize these issues more thoroughly than Oregon.

Even some of the policies seem questionable. The sampling requirements are unclear. The quarterly samples may well be too frequent and clearly not all monitoring wells at a site should be followed. Quarterly water elevations would add tremendous costs. Why analize both top and bottom levels? In nearly all cases, we would be concerned with the top only. Follow-up tests should only be for compounds that were originally found.

Once again, Oregon seems to want to lead the nation in regulating away the collection of waste oil, which EPA recognizes will simply encourage more folks to dump their waste oil down the drain.

There seems to be far more questions to review, by folks with more technical knowledge than the typical petroleum marketer. I'm sure the major oil companies would provide some assistance.

We are quite sure that your fiscal and economic impact statement is far too conservative. Possibly the costs of collections and quarterly survey costs were not included. Even assuming just three monitoring wells, would not fit numerous sites.

I realize these rules allow for DEQ to consider less stringent clean-up levels for a particular site. However, established standards are very difficult and costly to bend, and again, all the burden falls on the tank owner.

Clearly, DEQ and the petroleum industry must work together, to try to cleanup these historical problems as quickly and practical as possible. It is certainly not in Oregon's best interest to further jeopardize the financial survival of their distributors, who supply approximately half of Oregon's fuel. Most distributors will have several cleanups or more. Basically, they can't borrow money for cleanups. I doubt that DEQ wants to break the operation on the first cleanup...or the last.

I know all tank owners would join me in strongly requesting that DEQ greatly slow their considerations of these groundwater cleanup standards and rules, and allow for substantial additional review and hearings. It would be extremely unfair to all, to pass this matter to the EQC for final adoption at this time.

Sincerely,

Mike Hawkins

MH:gl

cc: Mr. Fred Hansen
Mr. Richard Reiter
Mr. Byron Peterson
OPMA

Stein
OIL CO. INC.

19805 McLOUGHLIN BLVD.
GLADSTONE, OREGON 97027
656-0375

Dubetz Truck Stop

To Mr. Fred Dubetz,

Per conversation with your receptionist we are faxing your information of proposed DEQ Cleanup Groundwater Rules that will potentially affect your business greatly. Please attend the hearing or write your comments to DEQ.

Thanks

J.K.

Stein Oil Co Inc
member of OPMA

NEILSON RESEARCH CORPORATION
ENVIRONMENTAL CONSULTANTS • ANALYTICAL LABORATORY

Alan Kiphut
UST Cleanup Section
Oregon Department of Environmental Quality
811 SW Sixth Street
Portland, Oregon 97204

Dear Mr. Kiphut: April 17, 1992

Through this letter, I am commenting on the Oregon Department of Environmental Quality's proposed amendments to the UST Cleanup Rules.

My comments address the lack of the new groundwater cleanup rules to acknowledge the existing state law which states in Section 8, Chapter 672.525:

> **When geologist to be certified**
> (1) No person, other than a registered geologist, a registered specialty geologist or a sub-ordinate under the direction of either, shall provide or prepare for public practice of geology any geologic maps, plans, reports, or documents except as specifically exempted in ORS 672.535.

The public practice of geology is further defined in chapter 672.505:

> (7) "Public Practice of Geology" means the performance of geological service or work for the general public. This includes consultation, investigation, surveys, evaluation, planning, mapping, and the inspection of geological work, in which the performance is related to public welfare or safeguarding of life, health, property and the environment, except as specifically exempted by ORS 672.505 to 672.705. A person shall be construed to publicly practice or offer to publicly practice geology, within the meaning and intent of ORS 672.505 to 672.705, who practices any branch of the profession of geology; or who by verbal claim, sign, advertisement, letterhead, card, or in any other way purports to be a registered geologist, or through the use of some other title implies that the person is a registered geologist or that the person is registered under ORS 672.505 to 672.705; or who offers to provide any geological services or work recognized as geology for a fee or other compensation.

The Department of Environmental Quality, by not referring to this law, is implying that a Soil Matrix Cleanup License is sufficient to work as a consultant on geological matters. There are subsections in the UST cleanup rules which specially ask the owners or **permittee** (matrix supervisors) to practice geology. For example I will quote the following proposed groundwater cleanup rules:

1. **Subsection OAR-340-122-240(1)** the "owners, permittee, or

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responsible persons shall conduct investigations of the release... if...

(c) There is evidence that contaminated soils may be in contact with the **groundwater**".

2. **Subsection OAR-340-122-242(1)(a)** "A minimum of one hydraulically upgradient and two hydraulically downgradient groundwater monitoring wells, capable of adequately characterizing both site hydrogeology and the vertical and horizontal magnitude and extent of contamination, shall be required."

3. **Subsection OAR-340-122-340(4)** the "owner, permittee, or responsible person shall then either continue the investigation under OAR 340-122-240, or do the following:

(a) Purge the water from the tank pit...

(b) If water returns to the pit in less than 24 hours, a determination must be made as to whether contamination is likely to have affected the groundwater outside the confines of the pits as indicated below:

(A) ... soil samples are to be collected from the walls of the excavation ... at the **original soil/water interface.**"

In each of the above quoted proposed rules the Department is implying that a licensed Soil Matrix Cleanup Supervisor or an owner may practice geology. The rules do not state that in fact only a Registered Professional Geologist may perform any of the above mentioned services.

The DEQ, by licensing Soil Matrix Supervisors who are not Registered Professional Geologists to perform these services, is not in compliance with state law, and is also **taking on all liability for professional errors and omissions by those it licenses.**

Sincerely,
NEILSON RESEARCH CORPORATION

Plato Doundoulakis
Registered Professional Geologist

cc: The Association of Engineering Geologists
The Oregon State Board of Geologist Examiners
The American Institute of Professional Geologists

Oregon
OIL HEAT
COMMISSION
1-800-243-HEAT

14 April 92

Mr. Alan Kiphut
UST Cleanup Section
Environmental Cleanup Division
811 SW Sixth Ave.
Portland, OR 97204

re: Comments on UST Cleanup Rule Amendments - Revised OAR 340-122-242

Dear Al:

The Oregon Oil Heat Commission is pleased to present these comments to the Department regarding the revised Underground Storage Tank (UST) cleanup rules dated March 17, 1992.

OHC had previously provided detailed comments to DEQ regarding the earlier version of the proposed rules dated November 26, 1991. Many of our comments on the earlier rules have been incorporated into the current version of the rules, and we appreciate DEQ's thoughtful consideration of our comments.

Limiting the need for PAH[1] testing to those circumstances where it is necessary and returning the cleanup values to the Maximum Contaminant Levels (MCL's) are the largest improvements to the revised rules and we want to emphasize the importance of retaining these two changes in the final rule version.

The addition of language recognizing the difficulty of installing groundwater monitoring wells in residential neighborhoods and the elimination of Hydrocarbon Identification (HCID) testing for residential heating oil tanks are excellent forward steps in adjusting the DEQ UST cleanup program to the differences OHC

[1] Polynuclear Aromatic Hydrocarbons

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encounters in remediating releases from residential heating oil tanks. We appreciate these improvements.

Revisions of the rules to allow the preliminary compliance sampling event to be included in the four consecutive quarterly groundwater monitoring events will be a good cost savings to all responsible parties while providing DEQ the information it needs to determine if sites have been adequately cleaned up.

We had requested specific information from the Department regarding the concentrations of PAH's found in groundwater which had been impacted by releases of exclusively heating oil. The data attached to the Department's revised rules includes PAH sampling data from a variety of sites. According to the Department staff, none of those are sites which have only been impacted by heating oil - - each site which had a heating oil release also had a gasoline or diesel release. The data included as Example #7 showed the highest levels of PAH's. At this site both carcinogenic and non-carcinogenic PAH's are above the proposed cleanup levels. However, the blank for this data also shows concentrations of a carcinogenic PAH[2] at an order of magnitude above the proposed cleanup standard, calling the accuracy of all the data used in Example #7 into question.

OHC continues to have reservations about the environmental need to perform expensive PAH testing at our sites around the state. However, with the limited scenario's where testing will be required which is currently incorporated into the proposed rules, OHC is willing to accept limited PAH testing. However, we will be tracking the costs and results of this testing over the next year. Should this data indicate that PAH's are not a concern at sites where only heating oil has been released, we will request that additional modifications to further limit the necessity of PAH testing be incorporated into the rules.

Detailed below are specific comments relating to the proposed rules:

Rule Section 340-	Comment
-122-242 (1)	Acknowledgement of difficulty of installing groundwater wells in residential areas is a good idea.

[2] Chrysene

-122-242 (3)(B)	"at or below the seasonal high water table" should be modified to "at or 6 inches above". "seasonal high water table" should be modified to water when it is encountered during the excavation. Modified language of section would read..."TPH levels greater than 100 ppm have been found in a soil sample collected at or 6 inches above the groundwater table when encountered during the excavation. Under these..."
-122-242(3)(b)(D)	Language should be added to indicate that if PAH's are not detected in the first round of sampling, they shall be presumed to not be present.
-122-242(4)	Retain cleanup levels at Maximum Contaminant Levels.
-122-242(5)	Analytical Methods should be expanded to include both the Solid Waste Test Method and the Water/Wastewater Test Method.
-122-242(10)	The need for water level measurements should be limited to those groundwater monitoring wells which are included in the Correction Action Plan.

ADDITIONAL SUGGESTED REVISIONS

The revisions which limit the situations where PAH's testing is needed should also be added to the Soil Matrix "Sample Number and Location" portion of the rules also. OAR 340-122-340(4)(b)(C) should be modified similar to the revisions made to OAR 340-122-242(3)(A)(B) of the proposed rules dated March 17, 1992.

Should you have any questions regarding our comments on the rules, please contact me in Portland at 731-3002.

Very Truly Yours,

Terrie J. Heer

Terrie J. Heer
Administrator

cc: Oregon Oil Heat Commission
Mike Zollitsch, DEQ

Stein
OIL CO. INC.

19805 McLOUGHLIN BLVD.
GLADSTONE, OREGON 97027

656-0375

April 14, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 SW Sixth Avenue
Portland, OR 97204

RE: Comments on OAR 340-122-205 through 340-122-360

As a local oil distributor and member of the Oregon Petroleum Marketers Assoc, we would like to address the revised groundwater cleanup rules.

We have enclosed copies of our January 29 letters and we still feel these comments are revellent.

Our 2 major concerns at this time in the revised groundwater cleanup rules are as follows:

We strongly feel that the regulated community needs a greater amount of time to review and respond to the revised proposed rules. These rules, once approved, will impact all of us for years to come both environmentally and economically. So we are requesting an extension period for review.

Our second major concern is the economic consequences which shall arise from the state of Oregon being a leader in the nation of some of the highest groundwater cleanup. The State of Oregon also needs to remember that we are 1 of only 14 states in the nation that has EPA Cleanup Fund in existence, thus this could potentially backfire on the taxpayers of the state if owners of UST Sites default or bankrupt leaving the state with the financial burden.

We do see the need to continue to resolving our state and national environmental concern. We recognize the importance of the working together of our petroleum industry and DEQ, but would advise that greater lengths be taken to review all the consequences of such proposed rules becoming law to quickly still not accomplishing the best outcome.

Thank you.

Sincerely,

SL Stein
Stein Oil Co. Inc.

SLS:ae

I-147

Stein
OIL CO. INC.

19805 McLOUGHLIN BLVD.
GLADSTONE, OREGON 97027

656-0375

JANUARY 29,1992

DEPT. OF ENVIRONMENTAL QUALITY

611 SW SIXTH AVENUE

PORTLAND, OR 97204

RE: COMMENTS ON AMENDMENTS
STORAGE TANK CLEAN UP
(OAR 340-122-205, 340-122-3

STEIN OILCO. INC. IS WRITING REGARDING CONTEMPLATED AMENDMENTS. WE DISAGREE WITH THE INCLUSION OF LEAD (EDB) & (EDC) BEING ADDED AS ADDITIONAL PARAMETERS OF SITES CLEANUP. EVEN THE STATE OF CALIFORNIA, WHO HAS SET SOME OF THE HIGHEST STANDARDS IN THE COUNTRY " HAS STATED IN THE LUFT FIELD MANUAL THAT DUE TO THE DIFFICULTIES IN DISCERNING BETWEEN ORGANIC LEAD AND TOTAL LEAD, ANALYSIS FORLEAD SHOULD ONLY BE USED UNDER CERTAIN SITE SPECIFIC CONDITIONS." FUTHERMORE THE LUFT TASK FORCE HAS RECOMMENDED TO THE STATE OF CALIFORNIA REQUIRING ONLY THIS TEST FOR TOTAL PETROLEUM HYDROCARBONS.

THE QUESTION MIGHT BE ASKED, WHY WOULD STEIN OIL CO. INC. BE INTERESTED IN THE PROPOSED AMENDMENT TO EXISTING CLEAN UP, HERE ARE A FEW SPECIFIC REASONS:

* THE COST OF ADDITIONAL MOINTERING WELLS COULD RESULT IN A PROPOSED 22% ADDITIONAL COST OF CLEANUP PER SITE.

* PENDING THE CHALLENGE TO BILL 1215, OREGON IS 1 OF ONLY 14 OTHER STATES IN THE UNITED STATES WITH NO STATE CLEAN UP FUND INEXISTENCE.

*STEIN OIL CO. INC. IS ACTIVELY TRYING TO COMPLY WITH NEW REGULATIONS OF VAPOR RECOVERY II AND UPGRADING OF ALL FACILITIES. WE ARE FACED WITH A TOUGH JOB ********** BASED ON INBAILITY OF ANY POTENTIAL FINANCIAL LENDERS AVAILABLE IN THE PETROLEUM INDUSTRY, BEACAUSE OF LENDER LIABLITY.

* AS A SMALL PETROLEUM DISTRIBUTION, WE ARE NOT ABLE TO FU INTERNALLY AS A MAJOR OIL COMPANY CAN WITHOUT CONSEQUENCE TO NEW REGULATIONS.

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Stein
OIL CO. INC.

19805 McLOUGHLIN BLVD.
GLADSTONE, OREGON 97027 656-0375

IF WE OR OTHER SMALL INDUSTRY UST PROPERTY OWNERS CAN NOT COMPLY AND GO OUT OF BUSINESS THIS WILL NOT HELP DEQ OR THE TAXPAYERS OF THE STATE OF OREGON.

THANK YOU FOR BEING ABLE TO SUBMIT OUR INPUT.

SINCERELY,

S. L. STEIN

STEIN OIL CO. INC.

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GEORGE D. WARD & ASSOCIATES

4941 S.W. 26th Dr., Portland, Oregon 97201
(503)293-6075 FAX(503) 243-6815

ENVIRONMENTAL CONSULTING ENGINEERS

April 17, 1992

Alan Kiput
DEQ
UST Cleanup Section
811 S.W. Sixth Avenue
Portland, OR 97204

FAX # 229-6124

Dear Mr. Kiput:

The following is in response to DEQ's request for citizens recommendations applicable to the proposed UST CLEANUP RULE AMENDMENTS. Included is a brief summation of similar comments that I presented at the April 16 public hearing held at the City Hall on this same subject.

There were two specific areas that I commented on that I feel would save effected property owners a considerable amount of money throughout the State of Oregon. The intent of both suggestions were not meant to reduce the intent of DEQ's current objectives which stresses the preservation of the states environment. Instead they were meant as additional options that are not permitted or at least clearly spelled out in either the existing rules or proposed amendments.

The proposed additions are:

1. CHEMICALLY STABILIZED & SOLIDIFIED WASTE

Where geological, hydrogeological and soil minerology conditions make it possible, the use of solidification and/or stabilization processes approved by EPA for some forms of hazardous wastes should also be allowed for the stabilization of appropriate types of petroleum contaminated soils. Numerous EPA documents are available (through this office) certifying the federal governments acceptance of this form of disposal for hazardous wastes.

2. OFF-SITE DISPOSAL SITE MATRIX

Where location and availability of approved off-site disposal areas are available DEQ should permit the removal of petroleum contaminated soil from areas where pristine groundwater aquifers might be exposed and permit their disposal in areas where aquifers are known to irreparably contaminated by the action of others. When location logistics make this possible, the soil matrix required for the original site should not be mandatory for the alternate site providing a contaminated off-site aquifer is found within a trucking distances. In such instances an OFF-SITE SOIL MATRIX is recommended. The net result is that a property owner would have the option of increasing his trucking costs but drastically reducing his treatment costs.

I-150

> The example given was this firms client, Terminal Transfer, Inc., who by the present rules must meet Level One cleanup standards for diesel contaminated sand even though the 13,000 cu. yds. remaining out of the original 30,000 have been relocated to an approved, off-site location.

The St. Johns Landfill is located a short distance away but disposal at that location is not permitted unless level one treatment is achieved. Included within the landfill is 50 years of garbage stacked 100 ft. deep over hopelessly contaminated aquifer.

It would appear that the relaxing of DEQ's treatment requirements could save the responsible party a considerable amount of money without seriously effecting the current level of aquifer contamination already known to exist. EPA records confirm the existence of 25,000 drums of pesticide residue within the landfill. Because of this and other known contaminants METRO (and the taxpayers) are currently spending over $30 million to close the landfill forever.

It is my professional opinion that where possible the disposal of lightly contaminated soils within $30 million closure is far superior disposal off-site regardless of the level of clean-up achieved.

Thanks for the opportunity of submitting these suggestions.

Cordially yours,

George D. Ward

George D. Ward
Professional Engineer

GDW:sje

cc: Dick Kathrens, Terminal Transfer, Inc.

April 17, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 SW Sixth Avenue
Portland, OR 97204

Dear Sir or Madam:

Please add my name to those who have already spoken up about the unfairness of the proposed groundwater amendments.

Sincerely,

Glen W. White
Retired Petroleum Consignee
and Station Owner

I-152

YOUNGER OIL

260 SW Ferry Street
P.O. Box 87
Albany, Oregon 97321
(503) 926-4289
1-800-YOC-OILS

April 17, 1992

Department of Environmental Quality
Environmental Cleanup Division
UST Cleanup Section, 9th Floor
811 SW Sixth Avenue
Portland OR 97204

RE: Comments on OAR 340-122-205 through 340-122-360

We are aware that you have received many comments from others in the petroleum industry, and would like to express that we are very much in agreement with Mr. Mike Hawkins (Hawk Oil Company), Mr. Christopher C. Wohlers (Atec Associates), and Mr. David Harris (Harris Oil Company). These individuals have all written to address the issue of groundwater cleanup standards, and our response would echo theirs that standards as strict as are outlined in the current revised amendments potentially place undue hardship on an industry which is already heavily regulated, especially when it has not been demonstrated to be of substantial benefit to the environment.

In our case, Younger Oil has invested the majority of its profits in exceeding current standards for USTs. We monitor out tanks very closely and attempt to be very environmentally conscious. Even so, our pollution insurance premium is up 35.5% this year over last. Our deductible nonetheless is still at $150,000, just to keep our premium at a manageable rate.

Should the current revised amendments be adopted, insurance rates which are already high, may become unaffordable, and most wholesalers could be forced into bankruptcy by any infraction. We believe it is vitally important that the Department of Environmental Quality perform a valid assessment of the Economic Impact of the new rule.

We appreciate the opportunity to comment on this issue before a decision is made. We have endeavored to operate as an environmentally responsible part of the communities we serve.

Thank you,

PACIFIC PRIDE

Larry Younger

Larry Younger

I-153

State of Oregon
Department of Environmental Quality Memorandum

Date: June 1, 1992

To: Environmental Quality Commission

From: Fred Hansen

Subject: Agenda Item E - Further Amendment to Hazardous Waste Generation Fee Rules - OAR 340-102-065

Since the issuance of the final staff report, members of the regulated community have identified some procedural problems in the rule language covering the timing and process for fee limitation applications. Upon further review, the Department has concluded that the proposed procedure was too complex and imposed unnecessary burdens on both the Department and the regulated community. Accordingly, we ask that the following simplified rule be substituted for the equivalent paragraph beginning on page A-5 of Attachment A to the staff report.

(4) A generator subject to the annual hazardous waste generation fee may apply to the Department to limit the amount of the fee invoice to $15,000. Applications must be submitted [no later than July 1, 1992 for 1991 generation, and by April 1 of the year following each subsequent generation,] by the due date shown on the invoice and must contain a signed certification of:

(a) Timely filing of annual generator reports required under rule 340-102-041 covering the previous year,

(b) Timely filing of a toxics use reduction and hazardous waste reduction Notice of Plan Completion under rule 340-135-050 (4) or an Annual Progress Report under rule 340-135-070 (3), as applicable, during the previous calendar year, and

(c) Timely payment of fees assessed under this rule and under rule 340-105-113 in the previous calendar year.

Oregon

ENVIRONMENTAL QUALITY COMMISSION

REQUEST FOR RULE ADOPTION

Meeting Date: 6/1/92
Agenda Item: E
Division: HSW
Section: HWP&PD

SUBJECT: Amendments to Oregon Administrative Rules (OAR) pertaining to hazardous waste generator fees; regulation of certain chlorofluorocarbons (CFCs) as hazardous wastes; and state requirements for aquatic toxicity testing of pesticide wastes covered under Federal toxic characteristic regulations.

RULES AFFECTED: Department of Environmental Quality's hazardous waste regulations, OAR Chapter 340, Divisions 101 and 102.

STATUTORY AUTHORITY: Oregon Revised Statutes (ORS) 466.020 and 466.165.

TIME CONSTRAINTS: The current hazardous waste generation fees sunset June 30, 1992. In addition, it would be preferable to implement changes to the regulatory status of spent CFCs before the summer cooling season begins.

ATTACHMENTS:

Proposed Rule Amendments	Attachment A
Statement of Need for Rulemaking	Attachment B
Statement of Fiscal and Economic Impact	Attachment C
Land Use Evaluation Statement	Attachment D
Hearings Officer's Report	Attachment E
Department's Response to Comments	Attachment F
List of Supplemental Documents Available	Attachment G
List of Advisory Committee Members	Attachment H

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

SUMMARY OF ISSUES:

1. Hazardous waste generator fees.

This proposal is based on the work of two successive advisory committees and is a follow-up rulemaking to amendments approved at the July 24, 1991 Commission meeting, which reduced generator fees, extended the fee rule one year, and established an annual re-registration verification fee. The proposal would require yearly fees on the generation of hazardous waste on a unit basis, which offers an incentive for waste reduction and minimization, rather than on the current broad tonnage ranges. In addition, a new fee factor is introduced, which parallels Oregon's waste management hierarchy and should encourage more responsible management of hazardous waste. The new schedule will generally lower fees for most small and medium-size generators, and will increase the amount paid by the largest generators in the state. The proposal includes a fee "cap," available to very large quantity generators, including remedial action (cleanup) sites, who comply with basic reporting and fee payment rules. The Commission will be asked to adopt the initial base fee at a future meeting, once the Department has analyzed the generation data on which it is based. Once the base fee is set, the Department may administratively use that rate or a lower one as appropriate to generate program revenues: any increase in the rate would require EQC adoption. The proposed rule will stabilize program funding, support waste reduction and encourage preferred management methods.

2. Deregulating chlorofluorocarbons (CFCs), R-11 and R-12, as hazardous waste if they are recycled.

Certain used refrigeration CFCs, known as R-11 and R-12, are among the substances regulated as hazardous waste under OAR 340-101-033 (1)(b). This state requirement is more stringent than federal hazardous waste regulations, which recently exempted CFCs when they are recycled. At the same time, air quality regulations addressing ozone-depleting chemicals require that CFCs recovered from automobiles be recycled, and forthcoming federal regulations will deal similarly with CFCs generated from stationary equipment, such as industrial heating and refrigeration units. The stigma associated with the designation of these materials as hazardous waste, even when they are recycled, has caused reluctance in the affected industries to recycle at all, even when recycling facilities are available. Regulating CFCs as hazardous waste when they are recycled is redundant, because it overlaps with other DEQ regulatory programs. Therefore, the Department proposes to amend the regulations to exempt these two CFCs from hazardous waste rules when they are recycled, paralleling the federal

requirements. Heating and air conditioning industries and the automobile servicing industry would benefit from this deregulation by having to meet only one set of requirements. This change makes the state hazardous waste program equivalent to the federal program for this matter. Businesses are expected to be able to recycle spent CFCs more easily, and would not have to meet the rigors of complying with hazardous waste generator storage, manifesting, reporting, and fee requirements, and associated paperwork and administrative burdens, without compromising environmental concerns.

3. Aquatic toxicity pesticide regulation: eliminating state-only hazardous waste evaluation requirements for certain pesticide waste.

Oregon hazardous waste rules (OAR 340-102-011) require generators to determine whether their solid wastes are hazardous, first by evaluation under federal criteria, then if they pass, by state-only hazardous waste regulations. With the adoption of the federal Toxicity Characteristic Leaching Procedure (TCLP) and EPA's promulgation of wood treating regulations, the Department has determined that federal requirements now satisfactorily address certain pesticide wastes previously regulated only under the Department's aquatic toxicity rules. Currently, generators of such pesticide wastes are subject to both federal and state requirements for the same wastestreams. For example, a wood waste, such as a used bridge piling or railroad tie, that passes TCLP, is also subject to a second evaluation under the aquatic toxicity test.

The Department conducted a literature study of the relative stringency of the TCLP and Oregon's aquatic toxicity test, covering the ten organic pesticides listed in the Toxic Characteristic rule. The literature indicates in all cases, that the TCLP is equal to, or more stringent than, the aquatic toxicity test. The comparison was made by calculating the equivalent concentration under the aquatic toxicity test protocol, of a TCLP concentration which would just exceed the TCLP allowable threshold. This would make it a Toxic Characteristic hazardous waste. For example, the TCLP threshold concentration for methoxychlor is 10 parts per million (ppm). A waste sample would have to contain an original concentration of 200 ppm to produce this result under the TCLP test. At this concentration the waste would fail the TCLP. This equates to a concentration under the aquatic toxicity test of .05 ppm compared to a literature LC_{50}[1] value of .125 ppm. In this case the waste would pass the aquatic toxicity test.

[1]LC_{50} means the concentration that kills 50 percent of the test organisms during the test period.

The following table illustrates the TCLP and Aquatic Toxicity thresholds for the 10 pesticide wastes on the TCLP list. The first number shows the equivalent aquatic toxicity test chemical concentration of a waste which just fails TCLP: the second shows the standard reference LC_{50} value for *Daphnia magna* (a test organism, commonly referred to as a "water flea").

TABLE 1

Toxic Characteristic Pesticide Chemical	Aquatic toxicity test concentration for a waste that just fails the TCLP. (ppm)	Literature LC_{50} values for *Daphnia magna* (aquatic toxicity failure). (ppm)	Registration Status in Oregon [1]
Pentachlorophenol	.50	.53	Registered
2,4-D	.05	102	Registered
Endrin	.0001	.083	Not registered
Lindane	.002	.996	Registered
Methoxychlor	.05	.125	Registered
Toxaphene	.0025	.8	Not registered
2,4,5-TP (Silvex)	.005	140	Not registered
Chlordane	.00015	.15	Not registered
Heptachlor	.00004	.107	Not registered
Cresols	1.0	20	N/A - contained in creosote

[1] Source: Oregon Department of Agriculture.

Very few wastes containing pesticides that pass the TCLP testing procedures or the federal wood treating regulations would subsequently fail

the Department's aquatic toxicity test. The Department believes that no substantial, measurable benefit to the environment or to human health is achieved by maintaining a regulation that may occasionally render such materials as used bridge pilings a hazardous waste. Therefore, the Department proposes to amend its rules to exempt from the aquatic toxicity regulation those pesticide wastes containing only toxic characteristic pesticides that have passed the EPA hazardous waste evaluation. Generators of pesticide wastes that do not fail any of the tests in the RCRA regulations would benefit by no longer being required to evaluate them again under the Aquatic Toxicity Test. Such wastes as used telephone poles, used bridge pilings and railroad ties, which generally pass TCLP, would likely exit the regulated universe. Pesticide wastes with any pesticide constituents not included on the federal TC list, such as equipment rinsings containing any of the hundreds of other pesticides, or pesticide active ingredients not on the list, would still be regulated under the aquatic toxicity requirements.

4. "Listing" vs "characteristic" designation of pesticide hazardous waste.

Under EPA and DEQ hazardous waste regulations, two general classes of hazardous waste are regulated. First, "listed" hazardous wastes are considered hazardous because of the specific process used to create the waste. These listed wastes are regulated as hazardous even if there are very low concentrations of toxic material in them. Second, "characteristic" hazardous wastes are hazardous based solely on the level of hazardous constituents found in the waste. These characteristic wastes cease to be regulated as hazardous when they no longer exhibit the regulated hazardous concentration.

Dilution of a listed hazardous waste is strictly prohibited by federal and state regulation. Characteristic waste, on the other hand, can be legally diluted or mixed with other waste streams prior to determining the hazardous concentration of each individual waste stream.

The Department proposes to maintain "listing" pesticide hazardous waste as a way to prevent dilution but still allow very low concentrations of undiluted pesticide hazardous waste to exit regulation as a hazardous waste, in effect, similar to a "characteristic" hazardous waste. The Department believes this will discourage dilution yet encourage the reduction and minimization of the waste, particularly pesticide rinsewaters which are amenable to dilution. This regulatory distinction will allow pesticide hazardous waste spills to be managed at a level commensurate with the concentration of toxic material and risk posed to the environment. For example, the most severely contaminated portion of a pesticide hazardous waste cleanup would be

managed at a hazardous waste management facility, while the lower concentration portions of the cleanup could be managed, more cost effectively and still protective of the environment, at a solid waste facility.

Approvals:

Reviewer: _____

Fiscal: _____

Section: _____

Division: _____

Director: _____

Authors: Gary Calaba and Scott Latham
Phones: 229-6534 and 229-5082
Date: May 11, 1992

**BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON**

**IN THE MATTER OF AMENDING) PROPOSED AMENDMENTS
OAR 340, DIVISIONS 101 AND 102)**

Unless otherwise indicated, material enclosed in brackets [ ] is proposed to be deleted and material that is underlined is proposed to be adopted:

1. 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 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)[.], except U075 (Dichlorodifluoromethane) and U121 (Trichloromonofluoromethane) when they are intended to be recycled.

(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 LC_{50} equal to or less than 250 mg/l[.], except for residues listed in Table 1 of 40 CFR 261.24 which pass the evaluation requirement of 40 CFR 261.24 (a).
(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[.], until a representative sample of the residue no longer exhibits an LC_{50} equal to or less than 250 mg/l.

2. Rule 340-102-065 is proposed to be amended as follows:

Hazardous Waste Generator Fees

340-102-065 (1) Each person generating more than 100 kilograms (220 pounds) of hazardous waste, or more than 1 kilogram (2.2 pounds) of acutely hazardous waste, in any calendar month, or accumulating more than 1,000 kilograms (2,200 pounds) of hazardous waste at any time in a calendar year, shall be subject to an annual hazardous waste generation fee, [based on the weight of hazardous waste generated during previous calendar year. The billing cycle shall be the calendar year and f]Fees shall be assessed annually for the previous year and shall be paid [within 30 days of the invoice date] by the due date shown on the invoice. A late charge equal to ten percent of the fee due shall be paid if the fees are not postmarked by the due date[on the invoice]. An additional late charge of [fifteen]ten percent of the [total due (original fee plus the ten percent late charge)]invoice amount shall also be paid each [90]30 days or fraction thereof that the invoice remains unpaid. Invoices 90 days or more overdue may be referred to the Department of Revenue for collection: accounts so referred shall [also] be increased by twenty percent of the total due (original fee plus [ten percent and fifteen percent] late charges)[and referred to the state Department of Revenue for collection].

[(2) For the purpose of determining appropriate fees, each hazardous waste generator shall be assigned to a category in Table 1 of this Division based upon the amount of hazardous waste generated in the calendar year identified in section (1) of this rule except as otherwise provided in section (5) of this rule.

Table 1

Hazardous Waste Generation Rate (Metric Tons/Year)	Fee
<1	180
>1 but <3	540
>3 but <14	1,000
>14 but <28	1,600
>28 but <142	3,600
>142 but <284	8,150
≥284	11,600]

(2) A base hazardous waste generation fee, expressed in mills per kilogram, shall be fixed by rule by the Commission, based on reports from the Department on the total amount of hazardous waste generated in the state and the methods by which the waste was managed. Once the base fee is fixed, the Department may use that fee, or any lesser fee, to determine annual generation fee invoices. Any increase in the base fee must be fixed by rule by the Commission.

[(3) For the purpose of determining appropriate fees, hazardous waste shall be included in the quantity determinations required by section (1) of this rule as follows:

(a) Except as provided in subsection (b) of this section, all quantities of "listed" and "characteristic" hazardous waste shall be counted that are:

(A) Accumulated on-site for any period of time prior to subsequent management;

(B) Packaged and transported off-site;

(C) Placed directly in a regulated on-site treatment or disposal unit; or

(D) Generated as still bottoms or sludges and removed form product storage tanks.

(b) Hazardous wastes shall not be counted that are:

(A) Specifically excluded from regulation under 40 CFR 261.4, 261.5 (d), or 261.6;

(B) Continuously reclaimed on-site without storage prior to reclamation. (Note: Any residues resulting from the reclamation process, as well as spent filter materials, are to be counted);

(C) Managed in an elementary neutralization unit, a totally enclosed treatment unit, or an exempt wastewater treatment unit;

(D) Discharged directly under a permit or authorization to a publicly-owned wastewater treatment works, without first being stored or accumulated. (Note: Any such discharge must be in compliance with applicable federal, state and local water quality regulations); or

(E) Already counted once during the calendar month, prior to being recycled.]

(3) Each person's hazardous waste generation fee shall be calculated by multiplying the base fee by the weight of each hazardous waste stream and by the fee factors listed below for the management method reported in the annual generation report (OAR 340-102-041) as follows:

Management Method	Fee Factor
Metals Recovery (For Reuse)	0.50
Solvents Recovery	0.50
Other Recovery	0.50
Incineration	1.00
Energy Recovery (Reuse as Fuel)	0.75
Fuel Blending	0.75
Aqueous Inorganic Treatment	1.00
Aqueous Organic Treatment	1.00
Aqueous Organic and Inorganic Treatment (Combined)	1.00
Sludge Treatment	1.00
Stabilization	1.00
Other Treatment	1.00
Neutralization (off-site)	0.75

Land Disposal	1.50
Management Method Unknown or Not Reported	2.00
RCRA-Exempt Management	
Neutralization (on-site)	0.00
Permitted Discharge under Clean Water Act Section 402	0.00

[(4)] In order to determine annual hazardous waste generation fees[rates], the Department may use generator reports required by rule 340-102-041; [treatment, storage and disposal] facility reports required by rule 340-104-075; information derived from manifests required by 40 CFR 262.20[,]; and any other relevant information. For wastes reported in units other than [metric tons]kilograms, the Department will use the following conversion factors: 1.0 metric ton[s] = 1,000 [kg]kilograms = 2,200 [lbs.]pounds = 35.25 cubic feet = 264 gallons = 1.10 tons (English) = 4.80 drums (55 gallon).

[(5) Owners of hazardous waste treatment, storage and disposal facilities shall not be subject to the fees required by section (1) of this rule for any wastes generated as a result of storing, treating or disposing of wastes upon which an annual hazardous waste generation fee has already been paid. Any other wastes generated by owners and operators of treatment, storage and disposal facilities are subject to the fees required by section (1) of this rule.]

(4) A generator subject to the annual hazardous waste generation fee may apply to the Department to limit the amount of the fee invoice to $15,000. Applications must be submitted no later than July 1, 1992 for 1991 generation, and by April 1 of the year following each subsequent generation, and must contain a signed certification of:

(a) Timely filing of annual generator reports required under rule 340-102-041 covering the previous year,

(b) Timely filing of a toxics use reduction and hazardous waste reduction Notice of Plan Completion under rule 340-135-050 (4) or an Annual Progress Report under rule 340-135-070 (3), as applicable, during the previous calendar year, and

(c) Timely payment of fees assessed under this rule and under rule 340-105-113 in the previous calendar year.

(6) All fees shall be made payable to the Department of Environmental

Quality.

[(7) The fee schedule in section (2) of this rule shall expire on June 30, 1992.]

[(8)](5) In addition to the annual hazardous waste generation fee, e[E]ffective January 1, 1991, each hazardous waste generator shall be subject to an annual waste activity re-registration verification fee, upon billing by the Department, as follows:

(a) Large Quantity Generator:	$350
(b) Small Quantity Generator:	$200
(c) Conditionally Exempt Small Quantity Generator:	NO FEE

**BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON**

IN THE MATTER OF AMENDING CHAPTER 340, DIVISIONS 101 and 102	))	**STATEMENT OF NEED FOR RULEMAKING**

STATUTORY AUTHORITY

1. ORS 466.020 requires the Commission to adopt rules to establish minimum requirements for the generation, treatment, storage, and disposal of hazardous wastes; minimum requirements for operation, maintenance, monitoring, reporting and supervision of generator, treatment, storage and disposal sites; and requirements and procedures for selection of such sites.

2. ORS 466.165 allows the Department to require an annual fee of every hazardous waste generator. The fee amount is determined by the Commission to be adequate to carry on the monitoring, inspection and surveillance program and to cover related administrative costs.

NEED FOR THE RULES

1. The Department's current fee rules expire on June 30, 1992. The Commission has instructed the Department to work with the regulated community to develop a new fee system that provides stable and predictable program funding. The current fee schedule does not support Oregon's statutorily and regulatorily mandated hierarchy of preferred hazardous waste management methods; it offers little incentive to waste reduction and minimization; and it is inherently regressive, placing a proportionally greater economic burden on small businesses. The proposed amendments have been developed, with the assistance of two industry/citizen advisory committees, to address these deficiencies.

2. The Department proposes to modify its state-only hazardous waste regulations to deregulate two chlorofluorocarbons (CFCs) as hazardous wastes when they are recycled; eliminate the aquatic toxicity evaluation procedure for certain pesticide wastes that have passed the federal Toxicity Characteristic Leaching Procedure (TCLP) test; and to redesignate aquatic toxicity pesticide hazardous

wastes from "listed" to non-hazardous wastes when they no longer fail the test. Currently, if such wastes fail the test, they are hazardous wastes regardless if they subsequently pass the test.

The Department's current regulation of used CFCs as hazardous wastes when they are recycled, and the requirement that certain pesticide wastes be subject to an additional evaluation under the state-only aquatic toxicity test, even if the wastes pass federal testing requirements are more stringent than current federal requirements. After evaluating these state-only requirements and the new federal CFC and pesticide waste regulations, the Department has determined that maintaining its more stringent regulations is not more protective of the environment.

Requiring aquatic toxicity hazardous wastes to remain "listed" even when they subsequently pass aquatic testing limits the Department's flexibility, particularly during remedial action cleanups. Also, the aquatic toxicity test closely resembles federal "characteristic" tests, because failing either depends on the concentration of constituents in the wastes. The Department proposes to change the aquatic toxicity rule to allow wastes to exit the listing designation when they no longer fail the test.

PRINCIPAL DOCUMENTS RELIED UPON:

Oregon Administrative Rules, Chapter 340, Divisions 101 and 102.
Code of Federal Regulations, 40 CFR 261.24, and 40 CFR Parts 261, 264, and 265.

Attachment C
Meeting Date: 6/1/92
Agenda item: E

**BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON**

**IN THE MATTER OF AMENDING) STATEMENT OF FISCAL
CHAPTER 340, DIVISIONS 101 AND 102) AND ECONOMIC IMPACT**

Proposed Changes to the Fee Rules

The Department's current fee rules cover approximately 750 to 1,000 hazardous waste generators, who pay total annual fees ranging from $200 to $11,950. Under the proposed amendments, generation fees would generally be lowered for all affected parties except for approximately 23 businesses, none of which is a small business. The following table shows the current and projected average fee burden for groups in the regulated community, based on actual waste volumes generated in 1990, at a hypothetical base fee of 375 mills per kilogram, assuming a management method fee factor of 1.0 for all wastes.

Fee Category (Metric Tons)	Number in Group	Current Fees	Projected Avg. Fees	Increase (Decrease)	Percent Change
Less than 1	248	$380	$218	($162)	-42.5%
> 1 < 3	255	$740	$266	($474)	-64.0%
> 3 < 14	142	$1,275	$435	($840)	-65.9%
> 14 < 28	24	$1,950	$1,073	($877)	-44.9%
> 28 < 142	45	$3,950	$2,607	($1,343)	-34.0%
> 142 < 284	13	$8,500	$7,763	($737)	-8.7%
More than 284	23	$11,950	$14,776	$2,826	23.6%

The generation fee will vary with both the exact volume of waste and the method by which it is managed. While the Department cannot predict exceptional events, such as hazardous waste spills or clean-ups, our analysis has identified no state agency or unit of local government whose normal generation activities would incur higher fees

under the proposed system than under the current rule.

The proposal is revenue-neutral, in that it neither increases nor decreases the Department's revenue from these fees. It replaces a regressive fee schedule with a flat unit rate, and offers financial incentives for waste minimization and responsible waste management, in that a generator who generates less will pay less.

Proposed Changes to the CFC Rules

Heating and air conditioning and automobile servicing businesses are most directly affected economically by the current requirement that two used chlorofluorocarbons (CFCs) be managed as hazardous wastes when they are recycled. Hazardous waste manifesting, recordkeeping, on-site management standards, and special transportation requirements increase operating costs. Degregulating used CFCs when they are recycled will allow all of these businesses to recycle the used CFCs without having to meet more costly hazardous wastes management requirements.

Proposed Changes to the Aquatic Toxicity Rules

Under the proposed changes, generators of certain pesticide wastes that pass the federal TCLP requirements would not be required to test wastes again under the aquatic toxicity regulation. This would result in savings, on the order of $200 per test, to public and private pesticide users and applicators who generate certain pesticide wastes that pass the TCLP requirements. In addition, changing the aquatic toxicity hazardous waste "listing" designation to "characteristic", when the wastes do not fail subsequent tests, makes the waste non-hazardous. Non-hazardous wastes can be managed at lower cost.

Attachment D
Meeting Date: 6/1/92
Agenda item: E

LAND USE EVALUATION STATEMENT

1. Explain the purpose of the proposed rules.

   The purpose of the proposed rules is to develop a hazardous waste generator fee structure that supports the Department's commitment to encourage hazardous waste reduction and recycling instead of treatment or disposal; and to make the Department's hazardous waste regulations and implementation policy more equivalent to the federal program.

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

2a. If yes, identify existing program/rule/activity_____

_____

2b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules? yes____no_____ (if no, explain)_____

_____

2c. If no, apply criteria 1. and 2. from the other side of this form and from Section III Subsection 2 of the SAC program document to the proposed rules. In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

   The revisions to the hazardous regulations pertain to the assessment of hazardous waste generators fees and hazardous waste determination methodology.

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

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Stephanie Hallock _____ 3-12-92

Division Intergovernmental Coordinator Date

Attachment E
Meeting Date: 6/1/92
Agenda item: E

State of Oregon
Department of Environmental Quality Memorandum

Date: April 24, 1992

To: Environmental Quality Commission

From: David Rozell, Hearings Officer

Subject: Report of Public Hearing on Hazardous Waste Rules

On March 13, 1992, the Director authorized a public hearing on amending Oregon Administrative Rules (OAR) pertaining to hazardous waste generator fees; regulation of certain chlorofluorocarbons (CFCs) as hazardous waste; and state requirements for aquatic toxicity testing of certain pesticide wastes covered under Federal toxic characteristic regulations. Notice was published in the April edition of the Bulletin, and separately distributed to a Department mailing list of potential interested parties.

On April 17, 1992, the Department held a public hearing at the Department's headquarters in Portland. Fifteen people attended the hearing, which was opened at 9:00 AM. Seven people offered comments for the record, and a sound recording was made of their testimony. The hearing was temporarily closed at 9:50. There being no further comments, the hearing was reopened, then officially closed at 10:02 AM.

I have summarized below the comments received. The Department's responses to these and other written comments received will be included in the staff report to the Commission.

Comment #1 - Joel Scoggin, Columbia Helicopters, Inc.

> Mr. Scoggin expressed disappointment that the proposal did not include fees for conditionally exempt small quantity generators (CEGs), as the 1990 Hazardous Waste Advisory Committee had recommended. He felt that CEGs were not paying their share and proposed an annual fee of $75 and some tonnage fees, as a way to lower the fee burden for small and large quantity generators. He opposed the proposal not to limit fees on cleanup wastes managed off-site, noting that the Department already recovers costs in voluntary and RCRA cleanups, and stated his support for similar written comments by Stoel Rives Boley Jones & Grey. He supported the Department's proposals concerning regulation of spent CFCs and application of the aquatic toxicity test to certain pesticide wastes.

Comment #2 - Tom Zelenka, Schnitzer Steel Industries, Inc.

Mr. Zelenka spoke at length to the history of the hazardous waste generator fees, noting that the Department had requested and received a one-time increase in these fees in 1988, which was now incorporated in the proposed fee. He found the relationship between the work of the various advisory committees and the proposed rules unclear, noting that the 1990 committee had recommended bringing CEGs into the system, and the current committee had discussed either no fees, or an across-the-board limitation, for cleanups. Neither initiative was found in the proposed rules. He felt that the proposed fee reductions for smaller generators, and the failure to charge fees to CEGs, send the wrong message, and these were sites more likely to have problems. He was concerned that the question of acute toxicity was not addressed, which adversely affects companies generating large volumes of low-toxicity waste. He felt that the payment date and late fee provisions were not well conceived, and that the Commission should be involved in any change to the base fee, up or down. He supported the fee limitation for large generators, but felt it should not expire. He supported the concept of management method fee factors, but felt the specific factors for recycling, especially for metals recovery, were too high, and asked how alternative technologies would be handled in this scheme. He reiterated that cleanups should be exempted from fees entirely.

Comment #3 - Dennis Hayward, Western Wood Preservers Institute

Mr. Hayward gave a brief account of the pressure treated wood products industry, and commended the Department's proposal to eliminate duplicative testing requirements. He suggested that further consideration be given to exempting wastes from such products from all regulation as potential hazardous waste.

Comment #4 - John Kleinheinz, OM Group, Inc.

Mr. Kleinheinz urged that the Department expand the scope of the proposed rule amendments to exempt from aquatic toxicity regulations copper-naphthenate treated wood in the hands of its end user when it is intended for discard.

Comment #5 - Jean Cameron, Oregon Environmental Council

Ms. Cameron opposed exempting pesticide residues which pass the Toxic

Characteristic Leaching Procedure (TCLP) evaluation from current state requirements to also perform an aquatic toxicity test, on the grounds that, as a bioassay, the aquatic toxicity test can reveal synergistic effects and the effects of "inert" ingredients. She detailed the toxic nature of the ten chemicals involved and concluded that all tests should be used to reduce opportunities for exposure of humans and Oregon's environment. She supported the concept of unit fees as an incentive to waste reduction, but found the fee limitation provision in contradiction to this aim, and urged that it be deleted. She further suggested setting fee amounts at levels shown to encourage behavior change, rather than simply adequate to fund the Department's activities.

Comment #6 - Quincy Sugarman, Oregon State Public Interest Research Group

Ms. Sugarman said that the fee limitation provision undermines the guiding principle that the more waste a facility generates, the higher fees should be paid, which helps generators achieve the economic and environmental consequences of waste reduction. She felt that any limitation implemented should have a definite expiration date, and that cleanup wastes should not be eligible, nor should violators of environmental laws. She opposed the changes to the aquatic toxicity rules on the grounds that the two tests in question are not equivalent. She noted with concern the presence in the target wastestreams of such contaminants as dioxins and furans which are not detected by TCLP, but whose effects may be shown through the aquatic toxicity test.

Comment #7 - Ian Whitlock, Southern Pacific Transportation Company

Mr. Whitlock supported the changes relating to the regulation of wood wastes. He noted that wastes such as creosote-treated railroad ties are relatively benign and have been in the environment a long time without adverse effect.

Attachment F
Meeting Date: 6/1/92
Agenda Item: E

State of Oregon
Department of Environmental Quality Memorandum

Date: May 11, 1992

To: Environmental Quality Commission

From: Roy W. Brower, Manager, Hazardous Waste Policy and Program Development

Subject: Response to Comments

The Department received oral and written comments from 23 members of the public: American Electronics Association (AEA), Associated Oregon Industries (AOI), Carr Enterprises, City of Gresham, Columbia Helicopters, Emerald People's Utility District (EPUD), Environmental Remediation Division of Chemical Waste Management Inc. (ENRAC), J.H. Baxter & Company, Metro, Northwest Coalition for Alternatives to Pesticides (NCAP), Northwest Industrial Neighborhood Association (NINA), OM Group, Oregon Environmental Council (OEC), Oregon State Public Interest Research Group (OSPIRG), Osmose Wood Preserving, Pacific Sound Resources, Schnitzer Steel Industries, Southern Pacific Transportation Company, Stoel Rives Boley Jones & Grey, Teledyne Wah Chang Albany, U.S. Fish and Wildlife Service, Westak, and Western Wood Preservers Institute (WWPI). In view of the volume of comments received, and the areas of overlap between individual commenters, the Department has chosen to summarize and group the comments, and to respond on an issue-by-issue basis. Copies of all comments received are available upon request. The issues raised, and Department responses, are detailed below.

FEE ISSUES

1. The proposed rule allows generators to apply to the Department to limit their annual hazardous waste generation fee invoice to $15,000, provided that they certify compliance with basic hazardous waste and toxics use reduction reporting

and fee-paying requirements. OEC and OSPIRG oppose the fee limitation provision, arguing that capping the fee violates the principle of "the polluter pays" and nullifies any incentive to waste reduction. OEC suggests that fees be set at levels designed to encourage behavior change, not simply to produce program revenues. OSPIRG feels that, if the limitation is adopted, it should be available only to companies demonstrating full compliance with all environmental regulations, and that any fee limitation must have an expiration date (see #3 below).

Department response: In 1988, the Department made a commitment to the Commission to re-evaluate the hazardous waste generator fee structure, to ensure a stable and predictable source of revenue to support the program. A secondary objective of the fee system was to encourage appropriate waste management alternatives, such as waste reduction and recycling. The proposed rules represent the work of a series of advisory committees which considered a broad range of issues and alternatives. Capping the fee at $15,000 is expected to benefit about 21 companies, most of whom produce large homogeneous wastestreams with limited potential for reduction. The Department believes that the correlation between the volume of waste generated by a particular hazardous waste handler and the extent of the Department's potential concern or involvement with an individual site is not linear: there are between 750 and 1,000 fee-paying sites in Oregon, yet 50% of the state's total waste volume is generated at only 5 facilities. It is unreasonable to expect these sites to pay half the cost of the Department's program for hazardous waste monitoring, inspection and surveillance. A practical advantage to the fee limitation is that no one invoice will be so large that its payment becomes critical to the program's continued operation. Capping the fee also has the effect of increasing the base rate for the entire regulated community, which should generally strengthen incentives for waste reduction and use of preferred management methods.

2. The original proposed rule afforded the fee limitation only to cleanups done on-site, leaving fees for off-site cleanups open-ended. The advisory committee considered exempting cleanups from fees altogether, but finally voted to recommend that they be treated as other sites, and be eligible for the fee limitation. OSPIRG opposes any fee limitation on cleanup wastes, or would at least limit its duration, to encourage faster cleanups. AEA, AOI, Columbia Helicopters, ENRAC, NINA, Schnitzer Steel, Stoel Rives, and Teledyne generally oppose charging fees on cleanup wastes, on the grounds that so doing will discourage cleanups, or unfairly penalize companies who undertake them. They find no environmental motive for making a distinction in a fee system between on-site and off-site remediation. They point out that the unpredictability of cleanups counteracts the Department's goal of establishing a stable and predictable funding

source. They assert that charging fees on cleanups amounts to double taxation, since the Department may recover its costs under the Voluntary Cleanup Program and in RCRA cleanups. If cleanup wastes are subject to fees, all cleanups should be eligible for the fee limitation, whether done on-site or off.

Department response: Historically, the Department has charged generator fees for cleanup wastes only when they were managed off-site, because invoicing was based on shipping manifests, rather than actual waste generation. Off-site cleanups utilize valuable hazardous waste landfill capacity and run the risks associated with over-the-road transportation. However, the preference for on-site cleanups is properly a technical determination made on a case-by-case basis, and should not be unduly influenced by fee differentials. Furthermore, since cleanups are sporadic and unpredictable, the Department cannot prudently base a large portion of program revenues on such special situations, which often have financial, as well as environmental, difficulties. The rule has been amended to make all cleanup wastes eligible for the fee limitation.

3. OSPIRG believes the fee limitation provision should expire in two years, requiring an affirmative act of the Commission to continue it. Schnitzer views the original proposed language, requiring reconsideration by the Commission, as tantamount to sunsetting and opposes it, arguing that the fee limitation should not be considered separately from the rest of the fee system.

Department response: The Department thinks it will be useful for the Commission to examine whether, and how, the new fee system, including the fee limitation provision, is working, but believes the pressures associated with a specific date can impede thoughtful consideration. The reconsideration provision has been deleted from the final proposed rule. The Department has worked diligently with various advisory committees for four years to establish a stable and predictable funding source for this program and believes that the proposed rule does so. We believe that it is not an efficient or effective use of the Department's resources to continually bring the matter before the Commission.

4. The 1990 Hazardous Waste Advisory Committee recommended "bringing conditionally exempt small quantity generators (CEGs) into the system," by levying a $50 annual fee, and considered the possibility of charging tonnage fees over a de minimis annual waste volume. Columbia Helicopters and Schnitzer Steel believe that CEGs should be charged fees under this rule. They cite the amount of resources devoted to CEGs by the Department, their presumed lack of knowledge,

and environmental risk. Columbia proposes a higher fee, which would shift some of the financial burden from small and large quantity generators.

Department response: As the designation suggests, CEGs are conditionally exempt from the program of regulatory oversight funded by this fee. Since the first advisory committee presented its recommendations, the 1991 Legislature passed Senate Bill 241, which directs the Department to offer a program of technical assistance to businesses that are, or are likely to be, CEGs, funded through an increase in the hazardous waste disposal fee at Arlington. This effectively brings CEGs into the system, and provides them with technical resources for safe and responsible management of their hazardous wastestreams. The Department believes that no reasonable level of fee for CEGs would materially shift the burden of the generator fee system, due to the added costs of identifying, enrolling, processing, billing, and collecting from such a large group. The Department recommends that no fees be required of conditionally exempt small quantity generators under this rule at this time.

5. Schnitzer and Westak question whether the 0.50 management method fee factor assigned to "Metals Recovery" is appropriate. Westak proposes to lower it to 0.00, on the grounds that such recovery both eliminates pollution and reduces the need to mine virgin ore. Schnitzer also expresses concern that new, alternative technologies that do not fit into a preferential fee category might be penalized, to the detriment of the environment.

Department response: Metals recovery is a form of recycling, and as such, is a **waste management** method, and receives the same factor as other recycling methods: the highest preference should be given to **not generating** the waste at all. The Department believes the categories are sufficiently flexible to accommodate emerging technologies.

6. City of Gresham objects to the management method fee factor of 0.00 associated with "Permitted Discharge under Clean Water Act Section 402," on the grounds that it is incompatible with their publicly owned treatment works' (POTW) goals, contrary to federal pretreatment policy, and does not reduce hazardous waste. They propose that such discharge be minimized or that the fee factor be set at 2.00.

Department response: Under EPA Biennial Report regulations and the Department's annual generator reporting requirements (OAR 340-102-041),

hazardous waste generators are required to report on all hazardous wastestreams, including those managed by **permitted** direct discharge to a sewer or POTW or to surface water under NPDES, despite the fact that such waste management activities are currently exempt from regulation under RCRA and the Department's hazardous waste rules. The proposed generator fee system, which funds the Department's hazardous waste monitoring, inspection and surveillance program, is based on this reporting, and the Department has proposed the 0.00 fee factor only as a means of reflecting the regulatory status of this management method, not as an encouragement to such discharges. The Department, through its Water Quality and other programs, works closely with POTWs and supports their efforts to prevent pollutants from entering the state's sewerage systems and public waters. The proposed rule has been modified by placing both this management method and "Neutralization (on-site)" under a new heading, "RCRA-Exempt Management."

7. Schnitzer argues that, rather than basing the fee on volume generated, the Department should use as a basis the relative toxicity of the wastestream. The proposed rule penalizes businesses producing high-volume/low-toxicity wastes, and does not focus on the most environmentally damaging substances.

Department response: The Department believes this could be a valid approach, but would require revisiting the basic underpinnings of the entire RCRA program. Doing so is beyond the scope of the Department's resources and expertise at this time.

8. Schnitzer opposes the changes to the billing cycle/due date. The extant rule requires payment within 30 days of invoice date, but calls for late-payment charges to be imposed if payment is not made by the due date on the invoice; the proposal requires payment by the due date shown on the invoice, and imposes late-payment charges as of the same date. Schnitzer feels this is a dangerous precedent, and that the number of days should be fixed by rule, not by administrative practice.

Department response: The change is an attempt to resolve an anomaly in the rule language, not a change in policy. The Department thinks this is properly an administrative issue.

9. Schnitzer opposes the provision allowing the Department to bill at the base rate set by the Commission or a lower one, unless an increase is needed, as an

arrogation of the Commission's duties to exercise budgetary control. Schnitzer suggests that the fee be re-approved annually, particularly as future progress toward waste reduction and responsible management may permit reductions in program size.

Department response: Formal procedures are in place ensuring Commission oversight of the Department's budgets and staffing. Statute requires that the Commission set fees, but maintaining or lowering the base rate in response to waste volume fluctuations in individual reporting and billing years is properly an administrative function. The rule proposes that the Commission approve any **increase** in the base rate. (Also see response to #3 above.)

10. Schnitzer believes that lowering fees for small and medium generators, and not charging fees to CEGs (see #4 above), sends the wrong message, that they need not take the rules seriously and will not be subjected to scrutiny by the Department. Schnitzer further states that these generators are more likely to have problems such as spills and accidental releases than the largest generators, who have sophisticated environmental programs in place.

Department response: Implementation of the proposed rule, by eliminating regressivity and shifting to a unit basis, brings about a one-time change in fee levels for almost all fee-paying generators. Thereafter, the new system will closely reflect each generator's annual waste volumes and the management methods employed, and thus will provide incentives for increased attention by each generator to opportunities for waste reduction and better management. Compliance and enforcement priorities are not determined by fee levels, and are not the only means to encourage environmentally responsible actions on the part of the regulated community.

11. Schnitzer believes that imposing hazardous waste generator fees on certain industries conflicts with solid waste recycling priorities. Schnitzer reclaims scrap metals, thereby diverting them from disposal in solid waste landfills and reducing the need to mine virgin ores. In the process, it generates "bag-house dust" containing hazardous contaminants from the scrap, which it sends to another facility for further reclamation. Schnitzer asserts that charging generator fees for these and similar activities conflicts with other Departmental priorities, such as encouraging solid waste recycling, and acts as a disincentive, if not a commercial disadvantage.

Department response: The Department regulates many substances as

hazardous wastes, without regard to the form of the raw materials used as inputs to the industrial processes which bring the wastes into being. Under RCRA, the Department regulates the commenter's primary wastestream (K061 - Emission control dust/sludge from the primary production of steel in electric furnaces) as a listed hazardous waste. Exempting this wastestream from fees would affect all generators engaged in the primary production of steel in electric furnaces, regardless of whether they start with scrap metal or virgin iron ore. The RCRA program has procedures for delisting of a specific generator's wastestream, which the commenter may care to pursue, that would in effect eliminate hazardous waste fees on this waste. The Department has not previously proposed exempting an individual company's waste from fees. In essence, the fee system is based on the generation of hazardous waste without regard to social or economic utility. Because a waste is hazardous, it requires time and effort to be regulated by the agency. To properly escape the fee paying system, a waste must be delisted or be no longer considered hazardous for regulatory purposes.

CFC ISSUES

1. AEA, AOI, Carr, Columbia, and Metro support the deregulation of the two spent CFCs used in air conditioning and refrigeration units as hazardous wastes when recycled. AOI recommends that the names of the CFCs be included in the rule text for ease of understanding. AOI further recommends the deletion of the 3 and 10 percent hazardous waste rules (the CFCs in question are regulated under the 10 percent rule). AOI asserts that the promulgation in 1986 of EPA's hazardous waste solvent regulations obviates the need for the Department's 3 and 10 percent hazardous waste rules, and proposes that residual contamination containing a 3 or 10 percent waste be exempted if the residual concentration is below the EPA health-based hazardous waste classification levels in 40 CFR 266 Appendix VII.

Department response: This rulemaking focuses narrowly on the regulatory status of two CFCs used in air conditioning and refrigeration equipment and has not attempted to address the wider question of the Department's 3 and 10 percent hazardous waste rules, which the Department intends to evaluate at a later date through an advisory committee. Naming the CFCs makes the rule clearer and the commenter's suggestion has been incorporated into the proposed rule.

AQUATIC TOXICITY ISSUES

1. AOI asserts that there is no longer need for the aquatic toxicity rule, because federal rules, such as the Toxic Characteristic Leaching Procedure (TCLP) and the wood treater rules, now adequately regulate the subject wastes. AOI suggests that the aquatic toxicity rule is not required to accomplish the objectives of the Oregon statute designating all pesticide wastes as hazardous wastes, because, in adopting the federal definition of "hazardous waste," the Commission has determined the types of pesticides wastes that may be regulated as hazardous wastes in Oregon.

> Department response: The proposed changes to the aquatic toxicity evaluation are meant to eliminate double evaluation requirement for pesticide wastes listed on the toxic characteristic (TC) list that pass the TCLP evaluation. The Department did not intend with this rulemaking to assess the validity of the aquatic toxicity evaluation, but rather to eliminate duplicative state requirements that are more stringent than the federal rules. The state definition of hazardous waste in ORS 466.005(7) is broader than the federal definition of hazardous waste. The adoption of the federal definition of hazardous waste does not restrict the state definition, except in relation to the federal program.

2. AOI and Southern Pacific would change the aquatic toxicity rule from a "listed" to "characteristic" rule, and AOI suggests wording it clearer, less ambiguous, and consistent with rulemaking intent.

> Department response: The Department elected to maintain the "listing" of pesticide hazardous wastes because pesticide wastes are largely generated as rinsewaters and are amenable to dilution. Dilution of a listed waste is prohibited by federal and state regulations. Continuing to list pesticide wastes will discourage dilution and encourage true waste minimization. If such wastes were designated "characteristic," dilution could legally occur.

3. OEC and OSPIRG oppose the elimination of testing under both TCLP and the aquatic toxicity regulation to determine whether certain pesticide wastes are by definition "hazardous wastes," on the grounds that the tests are not equivalent.

> Department response: The aquatic toxicity test is conducted on living organisms, and the TCLP test evaluates the concentration of a TC pesticide in leachate. The two tests are different, but both are used to determine if

certain pesticide wastes are to be considered "hazardous waste." The Department accepts the TCLP evaluation in determining if TC wastes are "hazardous wastes," according to the hazardous waste determination protocol found in OAR 340-102-011. Therefore, subjecting TC pesticide wastes to an additional evaluation under the aquatic toxicity test after the wastes pass TCLP is unnecessary, because a hazardous waste determination has already been completed.

4. OEC, OSPIRG, and NCAP are concerned about the synergistic, cumulative effects of several pesticides in a waste, unidentified contaminants (such as dioxins and dibenzofurans) and inerts. The TCLP does not test for these materials and the commenters assert that the aquatic toxicity test should be retained to test for all contaminants in the TC pesticide wastes that pass TCLP, particularly since some wastes which pass TCLP may fail the aquatic toxicity test.

Department response: The purpose of the TCLP and aquatic toxicity evaluations is to determine whether a waste, such as pesticide residue, is "hazardous waste" and requires special handling. Neither the TCLP nor the aquatic toxicity tests are designed to test for synergism (the action of two or more chemicals whose combined action is more toxic than the toxicity of the individual chemicals), although the aquatic toxicity results may be affected by the cumulative effects of other pesticides, unidentified contaminants, dioxins, dibenzofurans, pesticide carriers or inerts. And although the TCLP and aquatic toxicity testing mechanisms are different, both tests are initiated by the presence of known pesticide active ingredients in a waste, and both tests are mechanisms for determining whether solid wastes are "hazardous wastes." Failure of either test is attributed to the known pesticide active ingredient(s). The Department has made it clear that if other non-TC pesticide active ingredients are used in conjunction with the TC pesticides, wastes generated from the use of that mixture would still be subject to the aquatic toxicity evaluation. The exception to this would be spent utility poles, railroad ties, pier pilings, etc., containing only creosote which the Department intends to evaluate solely using the TC cresol criteria.

5. OEC, OSPIRG, and NCAP express concern about the TC pesticide wastes that may pass TCLP but, if tested, would fail the aquatic toxicity test, and assert that passing the TCLP and subsequently failing the aquatic toxicity test demonstrates that the aquatic toxicity test is more protective of the environment than the federal TCLP hazardous waste evaluation.

Department response: For the pesticides on the TC list, the TCLP test is

more stringent than the aquatic toxicity test, according to the literature evaluated by DEQ's Laboratory Division. Calculations comparing the stringency of the federal TCLP rule with the aquatic toxicity rule for the ten organic pesticides on the TC list show in all cases that the TCLP was equal to, or more stringent than, the aquatic toxicity rule (see Table 1, page 4 of the Staff Report). If both tests are conducted on a waste whose TC pesticide concentration just fails the TCLP test, generally that waste will pass the aquatic toxicity test. For the purpose of determining whether TC pesticide wastes are "hazardous wastes," the Department believes that the TCLP evaluation is sufficient. There may be some TC pesticide wastes that pass the TCLP and subsequently fail the aquatic toxicity test, but the Department believes that such wastes can be safely managed in Subtitle D landfills with appropriate technical standards (i.e. composite liners, groundwater monitoring, and leachate collection). There are currently some thirty other TC chemical contaminants, besides these pesticides, which are managed in solid waste landfills when the wastes containing them pass the TCLP.

6. Osmose, Pacific Sound and WWPI question whether the aquatic toxicity test is a valid test for determining if treated wood wastes are hazardous wastes. WWPI suggests the Department exempt all hazardous waste determination procedures for wood treated with materials accepted by the federal EPA, except those required by federal regulation, i.e., the TCLP procedures, and that staff examine protocol and procedures to determine whether the aquatic toxicity evaluation is accomplishing its intended purpose. Osmose suggests the Department exempt treated wood wastes from hazardous waste evaluation, provided that the pesticides used in treatment fall under the regulatory provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Department response: The Department did not closely scrutinize the validity or usefulness of the aquatic toxicity test as part of this rulemaking, since we focused on elimination of duplicative testing requirements. The aquatic toxicity test has been part of the Oregon hazardous waste rules for over 12 years and has served as a standard industry testing procedure for many more years. Because the aquatic toxicity test evaluates the effects of pesticides in an aquatic environment, the Department believes it is a relevant mechanism for deciding which pesticide residues should be managed as a hazardous waste. One of the primary risks posed by pesticide hazardous wastes is through surface and groundwater contamination. The aquatic toxicity test serves as one of the few "qualifiers" under the state's definition of hazardous waste (ORS 466.005(7)(a). Without an aquatic toxicity or similar testing procedure ALL pesticide residues would de facto be managed

as a hazardous waste. The Department, as the authorized EPA agent for implementing the hazardous waste program in Oregon, cannot categorically exempt wood waste from the obligatory evaluation requirement to determine whether it is a federal hazardous waste. Likewise, FIFRA currently only regulates pesticide products and use; it does not regulate the residue or wastes, unless a pesticide has been banned, cancelled or suspended from use.

7. OM Group recommends expansion of the scope of the proposed rulemaking to exclude from aquatic toxicity testing wood waste containing copper-naphthenate that is intended for discard, or an outright exemption for copper-naphthenate wood wastes from the definition of hazardous waste. They state that copper-naphthenate is not regulated by RCRA, is not on the lists, has low toxicity and low mobility in soils, and is not a significant wastestream. OM Group asserts that the proposed rule allows more toxic wastes to escape additional testing, while copper-napthenate wood wastes will remain subject to a test under which it may be hazardous waste.

Department response: Hundreds of pesticides, when contained in wastes, are not specifically regulated under the federal program, and pass through the federal evaluation, but become subject to hazardous waste determination under the Department's aquatic toxicity evaluation. The Department has not explored the question of excluding any of those non-federally regulated pesticide wastes from the hazardous waste evaluation during this rulemaking. (See also 6 above for discussion on why aquatic toxicity test has been used as the standard.)

8. OM Group believes the proposed rule creates an unfair and significant barrier to the introduction and use in Oregon of wood products treated with "safer" wood preservatives, including copper naphthenate, while allowing older products, such as pentachlorophenol, CCA and creosote to exit aquatic toxicity evaluation when wastes containing them pass TCLP. They fear Oregon consumers might avoid treated wood products containing copper-naphthenate, because wastes are subject to, and might be classified as hazardous under, the aquatic toxicity regulation, instead purchasing riskier products exempted from the test. They assert that the proposed amendment contradicts EPA's current policy encouraging the use of safer pesticides. J.H. Baxter comments on trends towards developing and using low toxicity preservatives and feels the aquatic toxicity rule will cause even those preservatives to be classified as hazardous waste.

Department response: The Department's proposed rulemaking creates no

barrier to the introduction in Oregon of "safer" wood preservation chemicals, including copper-napthenate, or other so-called low toxicity wood preservation pesticides. All solid wastes, including any pesticide waste containing "safer" or "low toxicity" pesticides are subject to hazardous waste evaluation under the federal and state regulations when intended for discard. It does not matter whether the wastes contain copper-napthenate, which is not on any EPA list, or are chlorophenolic formulations containing pentachlorophenol, creosote, or inorganic formulations containing arsenic or chromium, such as chromated copper arsenate, which are listed; they are all subject to evaluation of all characteristics. The Department could not unilaterally exempt such wastes from the federal hazardous waste evaluation protocol.

9. U.S. Fish and Wildlife Service contends that continuing a double evaluation of pentachlorophenol provides additional protection, because pentachlorophenol wastes may contain dioxin, dibenzofurans, chlorophenol, and hexachlorobenzene which TCLP may not detect yet might be revealed in the aquatic toxicity test. Increased toxicity associated with impurities in pentachlorophenol could be detected by the aquatic toxicity test at pentachlorophenol concentrations below the TCLP level.

Department response: The Department's aquatic toxicity test was not designed to test for impurities in pentachlorophenol, or impurities in any other pesticide waste. The aquatic toxicity evaluation determines if a pesticide residue is by definition a "hazardous waste," and whether the waste must be managed at a RCRA Subtitle C hazardous waste facility. The Department believes that the federal wood treating regulations, which designate wastes containing chlorophenolic formulations (pentachlorophenol, including its sodium salt) from wood preserving processes as "listed" hazardous waste, and the TCLP test for all other wastes containing pentachlorophenol, are adequate to determine if such wastes are by definition "hazardous waste." Wastes subject to the woodtreater rules and TCLP include:

1. Contaminated wastewaters; including,

- rainwater;
- preservative formulation recovery and regeneration waters;
- water used to wash excess preservative from the surface of treated wood;
- rinsings from drums, storage tanks, the process area, and equipment;

- water that accumulates in the door and retort sumps;
- collected rainwater that falls in the vicinity of the treating vessel and work tank area;

2. Process residuals, including,

- precipitated preservative solution;
- tar emulsified polymerized oils;
- treating cylinder, treating tank, and dip tank sediments;
- residuals from drying kilns, from holding work, storage, mixing, or other tanks:
- residuals that accumulate in secondary containment surrounding tanks, door or cylinder sumps;
- residuals from leaks from process equipment, maintenance and cleaning of process equipment, from spills; and

3. Preservative drippage, including,

- excess preservative that exudes or is "kicked back" from the wood following treatment and spent formulations (used penta).

While some wastes containing pentachlorophenol such as mill ends from the manufacture of treated lumber, or some cleanup debris may pass the listing and the TCLP and fail the aquatic toxicity test, the Department believes that this would rarely occur and that such wastes may be safely managed in Subtitle D facilities with composite liners, groundwater monitoring and leachate collection. Maintaining a more stringent requirement than the federal ones in the belief that occasionally some low-risk waste may fail the aquatic toxicity regulation will result in more cost and unnecessary regulatory burden on the regulated community, with no significant environmental benefit.

10. J.H. Baxter comments that the application of the aquatic toxicity rules to treated wood is inappropriate, because the rule was intended to regulate process waste, not treated wood products that are used in the environment and subsequently discarded. J.H. Baxter believes that it is unreasonable to require these products, after a lifetime of safe use in parks, suburbs and homes, to be placed in a hazardous waste landfill as opposed to a sanitary landfill. Interpreting treated wood to be a pesticide residue would imply that other wastes, such as pesticide treated carpeting and house plants are subject to hazardous waste regulations.

Department response: The aquatic toxicity test is intended to evaluate all pesticide contaminated wastes, including process wastes. The TCLP evaluates all solid wastes, including treated wood wastes intended for discard. Treated wood products intended for discard are similar to other "special" waste streams such as used batteries, used oil or other materials that society may use and then discard. The Department is not proposing to require that these wastes be placed in hazardous waste landfills unless they are determined to be "hazardous wastes" under the TCLP test. Wastes generated from household use, such as house plants, carpeting, treated wood wastes and residential construction debris, are exempt from RCRA and would not be subject to the aquatic toxicity evaluation. Treated wood wastes can be reused for the purpose for which they were treated, and not be regulated in the hazardous waste program. For example, treated railroad ties may be reused in landscaping without carrying the designation of "hazardous wastes."

11. J.H. Baxter comments that, while cresol is on the TC list, neither creosote, nor the hundreds of active ingredients it contains, are on the list. Waterborne arsenicals contain active ingredients such as copper which are not on the list. It is not clear whether these products would be subject to the aquatic toxicity test. J.H. Baxter proposes an exemption from the aquatic toxicity test for treated wood.

Department response: Creosote is a mixture of heavy residual oils obtained from the distillation of wood, coal tar, or crude petroleum. In some creosote formulations, one may find arsenic, chromium, o-cresol, m-cresol, p-cresol, pentachlorophenol, or pyridine, which are on the list. Creosote formulation wastes from wood preserving, including wastewater, process residuals, preservative drippage, spent formulations and cleanup debris are regulated as listed hazardous waste under the federal wood treater regulations. The Department's proposal would allow other creosote treated wastes that pass the TCLP evaluation for known TC pesticides or active ingredients to be exempt from the aquatic toxicity test. Although creosote may contain "hundreds of active ingredients", the aquatic toxicity test is designed for, and administered on, known pesticides or pesticide active ingredients. All wastes containing pesticide active ingredients are subject to the aquatic toxicity evaluation.

12. NCAP believes that the Department's reasons for proposing to change the aquatic toxicity rule are contradictory, and are insufficient arguments for reducing Oregon's environmental protection standards, and the rule should not be changed until the Department is able to enforce the existing rule and develops a database

on what the rule's effects are in Oregon.

Department response: The Department is proposing to modify the aquatic toxicity rule to allow TC pesticide wastes that pass the federal TCLP hazardous waste evaluation to be exempt from an additional hazardous waste evaluation under the aquatic toxicity evaluation. The Department believes that a double "hazardous waste" evaluation requirement for TC pesticide wastes is redundant and unnecessary (see Table 1, page 4 of the Staff Report). Such wastes may be safely managed in Subtitle D landfills without sacrificing environmental quality.

13. NCAP states that if treated wood pilings or chemical rinsate fail the aquatic toxicity test, the failure demonstrates that the materials are harmful to aquatic organisms, and that classifying them as hazardous waste makes sense. NCAP believes that it is irrelevant whether pilings were previously submerged in a river, or the chemical was sprayed on a field, that the environment is being affected.

Department Response: Wastestreams that pass the aquatic toxicity test contain pesticide active ingredients that may destroy some organisms during the test, but not enough to designate the wastestreams a "hazardous waste." Fifty percent or more organisms must perish before wastes are designated "hazardous wastes". Such pesticide wastes may be managed as solid waste in an environmentally sound manner at a Subtitle D facility. The Department agrees that all solid wastes, including spent bridge pilings, should be evaluated as to hazardous waste designation. Currently, under the federal woodtreater regulations and the TCLP tests such wastes are evaluated and that should suffice for purposes of determining if they are by definition "hazardous wastes" and should be handled differently from solid wastes.

14. OEC and NCAP state that the Department offers contradictory statements, including a table, on the relative stringency of the federal TCLP test and the Oregon aquatic toxicity rule, because the Department implies and states in handouts that some wastes which pass TCLP could fail the aquatic toxicity test.

Department Response: The Department believes that a small portion of TC pesticides wastes that pass the TCLP evaluation could fail the aquatic toxicity test. However, based on staff analysis, the Department believes that the TCLP is generally more stringent than the aquatic toxicity test for the TC pesticides (see Table 1, page 4 of the Staff Report). Failure or passage of laboratory tests depends not only on the concentration of the

constituent(s) of concern, but also on sampling techniques and other factors.

15. NCAP requests that the Department not change its aquatic toxicity rule because there have been federal stays of portions of the new wood treating rules, and the rules do not address the use of pentachlorophenol as a surface protectant, although pentachlorophenol wastes from surface protection would be subject to TCLP.

Department response: Stays of the wood treater regulations deal only with surface sealing of drip pads. The Department does not believe the stays argue for continuing a double evaluation of pesticide wastestreams containing TC pesticide active ingredients. Surface protectants usually consist of pentachlorophenol that has been mixed with other pesticide active ingredients that are not on the TC list. Therefore, under the Department's proposal, wastes derived from the use of such surface protectants would still be subject to the aquatic toxicity evaluation.

16. NCAP believes that the federal regulations governing wood preserving wastes are based on questionable and highly controversial risk assessments, and it is therefore desirable and well justified that Oregon maintain a more stringent hazardous waste classification standard.

Department response: The Department believes that the federal hazardous waste "listing" of an extensive universe of wood preserving wastes that contain chlorophenolic formulations (pentachlorophenol), creosote or inorganic wood preserving wastes such as chromated copper arsenate obviates the need for another layer of evaluation of wastes containing those chemicals that manage to pass the listing, and then the TCLP. The Department believes that the two tiers of federal regulation are sufficient to capture and manage as hazardous wastes environmentally damaging wastes. Requiring a third tier under the aquatic toxicity evaluation is unnecessary and will not result in significant, additional environmental benefit.

17. NCAP states that there is no compelling or even rational reason for farmers to be exempted from hazardous waste regulations.

Department response: The federal RCRA program conditionally exempts farmers from its hazardous waste program; the Department does not, and is not proposing to exempt farmers from the hazardous waste regulations.

18. NCAP asserts that the chemicals on the TC list are not all being phased out, and that many are still in extremely wide use.

Department response: According to the Oregon Department of Agriculture, of the ten pesticides or pesticide active ingredients on the TC list, six are no longer registered for use in Oregon (see Table 1, page 4 of the Staff Report). It is not uncommon to find unused formulations of these pesticides being stored; however, such commercial chemical pesticide products must be managed as hazardous and may not be disposed of improperly. Four pesticides on the TC list are still registered for use in Oregon, and two inorganics, arsenic and mercury may be found in some pesticides as well. To determine if wood preserving wastes containing them are "hazardous waste," pentachlorophenol, creosote, and chromated copper arsenate wastes are evaluated twice, once under the wood treater rules for "listing", and once under TCLP (creosote for cresols and other TC pesticide active ingredients; chromated copper arsenate for arsenic, chromium and other TC pesticide active ingredients); and wastes containing 2,4-D, Lindane, and Methoxychlor are evaluated once under TCLP.

State of Oregon
Department of Environmental Quality

Memorandum

Date: May 8, 1992

To: Environmental Quality Commission

From: Roy W. Brower, Manager, Hazardous Waste Policy and Program Development

Subject: List of Supplemental Documents Available

In addition to the information contained in the EQC staff report, the Department has available for review supplemental written documents and other materials that are pertinent to the proposed rulemaking.

Comments

Written comments were received in response to the Department's proposed rulemaking (See Attachment F, the Department's Response to Comments).

1. American Electronic Association, Salem, Oregon. 15 April 1992.
2. Association of Oregon Industries, Portland, Oregon. 24 April 1992.
3. Cable, Hill, Huston, Benedict, Haagensen & Ferris, Portland, Oregon. 24 April 1992.
4. Carr Enterprises, Portland, Oregon. 17 April 1992.
5. City of Gresham, Gresham, Oregon. 22 April 1992.
6. Emerald People's Utility District, Eugene, Oregon. 13 April 1992.
7. Fred N. Bay News Co., Portland, Oregon. 22 April 1992.

8. J.H. Baxter & Co., San Mateo, California. 23 April 1992.

9. METRO, Portland, Oregon. 22 April 1992.

10. Northwest Coalition for Alternatives to Pesticide, Eugene, Oregon. 22 April 1992.

11. OM Group, Inc., Cleveland, Ohio. 22 April 1992.

12. Oregon Environmental Council, Portland, Oregon. 17 April 1992.

13. OSMOSE Wood Preserving Division, Griffin, Georgia. 23 April 1992.

14. OSPIRG, Portland, Oregon. 16 April 1992.

15. Pacific Sound Resources, Seattle, Washington. 1 April 1992.

16. Schnitzer Steel Industries, Inc., Portland, Oregon. 23 April 1992.

17. Southern Pacific Transportation Company, Portland, Oregon. 24 April 1992.

18. Stoel Rives Boley Jones & Grey, Portland, Oregon. 27 March 1992.

19. Teledyne Wah Chang Albany, Albany, Oregon. 17 April 1992.

20. United states Department of the Interior, Fish and Wildlife Service, Portland, Oregon. 24 April 1992.

21. Walter G. Talarek, P.C., Vienna, Virginia. 22 April 1992.

22. Westak, Forest Grove, Oregon. 10 April 1992.

23. Western Wood Preservers Institute, Vancouver, Washington. 23 April 1992.

April 17, 1991 Tape Recording of the Public Hearing

The tape is available for review.

Minutes of the Hazardous Waste/Toxics Use Reduction Advisory Committee Meetings

Minutes of several Hazardous Waste/Toxics Use Reduction Advisory Committee meetings contain staff presentation and other material on the proposed changes to the rules.

1. February 19, 1992, meeting.
2. January 22, 1992, meeting.
3. December 18, 1991, meeting.
4. November 20, 1991, meeting.
5. October 30, 1991, meeting.
6. December 5, 1990 meeting summary. February 22, 1991.

MEMBERSHIP LIST

HAZARDOUS WASTE AND TOXICS USE REDUCTION COMMITTEE

1991-1992

Chairperson 223-4805	Bruce Snyder Lambier Professional Group 319 SW Washington, Suite 505 Portland, OR 97204

****

Name	Representing/Address
Shirley Benson 1-364-6194	(National Federation of Ind. Businesses) Benson's Automatic Transmission Specialties 2165 Commercial Street NE Salem, Oregon 97303
Frank Brawner 1-581-3522	Oregon Bankers Association PO Box 13429 Salem, Oregon 97309
Jean Cameron 222-1963	Oregon Environmental Council 027 SW Arthur Portland, Oregon 97201
Jim Craven 244-9198	American Electronics Association 707 13th Street SE Suite #275 Salem, Oregon 97301
Don Haagensen 224-3092	(ChemWaste Management) Hill, Huston, Cable, Ferris and Haagensen 1001 SW 5th Avenue Suite 2000 Portland, Oregon 97204

Bob Hansen 1-588-5036	Marion County Public Works Room 300 220 High NE Salem, Oregon 97301
Margie Harris 796-5103	(citizen) 2534 NE 38th Avenue Portland, OR 97212
Richard Kosesan 370-7024	Oregon Agriculture Chemicals Association 1270 Chemeketa Street Salem, OR 97301
Robert Prolman 206-924-2697	Weyerhaeuser Company CH1-K31 Tacoma, Washington 98477
Harold Rodinsky 286-5771	Schnitzer Steel PO Box 10047 Portland, Oregon 97210
Eugene Rosolie 295-0490	Northwest Environmental Advocates 408 SW 2nd Avenue Portland, Oregon 97204
Chet Schink 774-8453	Small business consultant 3943 SE Cooper Street Portland, Oregon 97202
Jim Spear 684-8600	Williams Controls Inc. 14100 SW 72nd Avenue Portland, Oregon 97224
Quincy Sugarman 231-4181	OSPIRG 1536 SE 11th Portland, Oregon 97214
Robert Westcott 1-266-2028	Westco Parts Cleaners PO Box 426 Canby, Oregon 97013

Jim Whitty
227-3730

Associated Oregon Industries
PO Box 12519
Salem, Oregon 97309

April 13, 1990

1990-91 HAZARDOUS WASTE ADVISORY COMMITTEE

Members Mailing List

Mr. Bruce Snyder
HMS Environmental, Inc.
Oregon Graduate Center Science Park
1600 NW Compton Drive, Suite 306
Beaverton, OR 97006

Chair
690-1420
FAX: 690-1421

Mr. Rick Cozad
Safety Kleen
16540 SE 130th
Clackamas, OR 97015

655-5798

Mr. Tom Donaca
Associated Oregon Industries
P.O. Box 12519
Salem, OR 97309

227-5636

Mr. Donald A. Haagensen
Schwabe, Williamson & Wyatt
1211 SW 5th Ave.
Suite, 1700, Pacwest Center
Portland, OR 97204

Chemical Security
Systems, Inc.
222-9981

Mr. John Harland Intel Corporation 5200 NE Elam Young Parkway AL3-19 Hillsboro, OR 97124	American Electronics Association 642-6479
Mr. Brad Higbee City of Portland 1220 SW 5th Ave., Room 400 Portland, OR 97204	League of Oregon Cities 248-4130 Salem: 399-9640
Mr. Gene Perala Nu-way Body & Fender 34 NE Grand Portland, OR 97322	Autobody Craftsman Assoc. (also member Auto. Service Assoc) 232-7237
Mr. Eugene Rosolie Northwest Environmental Advocates 408 SW 2nd, Suite 406 Portland, OR 97204	295-0490
Dr. Chet Schink 3943 SE Cooper St. Portland, OR 97202	774-8453
Mr. Joel Ario/Ms. Quincy Sugarman OSPIRG 027 SW Arthur Portland, OR 97201	222-9641
Mr. Tom Zelenka Schnitzer Steel Industries, Inc. 3200 Box 10047 Portland, OR 97210	224-9900

Oregon

ENVIRONMENTAL QUALITY COMMISSION

REQUEST FOR EQC ACTION

Meeting Date: June 1, 1992
Agenda Item: F
Division: Hazardous & Solid Waste
Section: Underground Storage Tanks

SUBJECT:

Adoption of Final Rules to Implement Underground Storage Tank Financial Assistance Programs Enacted in Senate Bill 1215.

PURPOSE:

Provide financial assistance in the form of loan guarantees, reduced interest rates, grants, and insurance copayments to property owners, tank owners, or permittees to assist in meeting corrective action, technical and financial responsibility requirements at facilities with underground storage tanks containing motor fuel for resale.

ACTION REQUESTED:

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

___ Authorize Rulemaking Hearing
_X_ Adopt Rules
Proposed Rules Attachments A, B, C, D, E, F, G
Rulemaking Statements Attachment H
Fiscal and Economic Impact Statement Attachment H
Land Use Consistency Statement Attachment I

___ 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

___ Approve Department Recommendation

___ Variance Request	Attachment ___
___ Exception to Rule	Attachment ___
___ Informational Report	Attachment ___
___ Other: List of Important Dates	Attachment ___

DESCRIPTION OF REQUESTED ACTION:

The 1991 legislature passed Senate Bill 1215 to establish grant, loan guarantee, reduced interest rate, and insurance copayment programs to provide financial assistance to persons responsible for underground storage tanks (UST) containing motor fuel for resale. The goals of SB 1215 were to maintain motor fuel availability throughout Oregon, especially in rural areas, maintain competitive motor fuel prices, protect Oregon's economy and growing tourism industry, restore the market value of small businesses reselling motor fuel from USTs, and enhance credit opportunities for small businesses reselling motor fuel from USTs by upgrading or replacing existing USTs and cleaning up existing contamination. The legislation required the program to become operative on October 1, 1991. Senate Bill 1215 also phased-out the UST financial assistance program adopted in 1989 (HB 3080).

The proposed final rules on loan guarantees, reduced interest rates, grants, and insurance copayment provide four tiers of financial assistance. The qualifications for each tier of assistance vary with number of underground storage tanks, ability to pay (as determined under these rules) and the nearness of other retail facilities reselling motor fuel.

Loan Guarantee: Tiers 1, 2, 3, and 4 qualify for a loan guarantee of 80% of the loan principal, up to a maximum guarantee of $80,000, up to 20 years.

Reduced Loan Interest Rate: Each tier qualifies for a different reduced interest rate to the borrower.

Tier 1:	7½%	Tier 3:	3 %
Tier 2:	5 %	Tier 4:	1½%

Senate Bill 1215 allows the lender to receive a reimbursement for difference between the finance charge earned on the reduced rate loan and the finance charge earned on a nonsubsidized loan under like conditions.

The proposed rule allows the lending institution to select one of two methods for establishing the lender's interest rate; a fixed rate over the term of the loan or a rate that must be adjusted each 3 years, upward or downward a maximum of 1 percent. Both methods use the 10-year Treasury Constant Maturities interest rate, published weekly in the Federal Reserve publication H.15, as a reference to establish the lender's rate.

Grants: Persons with the greatest financial need qualify for one of two grants, depending upon the nearness of other facilities reselling motor fuel. Tier 3 qualifies for a pollution prevention grant of 50% of the UST project cost, up to a maximum of $50,000. Tier 4 qualifies for an essential services grant of 85% of the UST project cost, up to a maximum of $85,000. To qualify for a Tier 4 essential services grant a retail facility must be the only one in town or, if outside a town, must be the only retail facility within 9 miles of another retail facility.

Insurance Copayment: Applicants in Tiers 2, 3, and 4 qualify for the following range of annual insurance copayment benefits where the program will pay part of the annual insurance premium and the applicant will pay the remainder. The copayment starts when the Department certifies the project is complete. Benefits were first available on October 1, 1991.

Tier 2:	50-30%, maximum $2,000-1,200, maximum 3 years.
Tier 3:	75-45%, maximum $3,000-2,200, maximum 4 years.
Tier 4:	90-75%, maximum $3,600-3,000, maximum 6 years.
	50%, maximum $2,000 in 1995.
	25%, maximum $1,000 in 1996.

Applicants in Tier 1 do not qualify for insurance copayment.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: _____ Attachment ___
Enactment Date: _____
_X_ Statutory Authority: ORS 466.705 - .995 Attachment ___
Chapter 863, Oregon Laws, 1991
___ Pursuant to Rule: _____ Attachment ___
___ Pursuant to Federal Law/Rule: _____ Attachment ___

___ Other: Attachment ___

__ Time Constraints:

The temporary rules adopted by the Commission at the December 13, 1991 meeting are effective until June 16, 1992, 180 days after filing. These rules must be adopted at the June EQC meeting to avoid a lapse in the financial assistance program.

DEVELOPMENTAL BACKGROUND:

___ Advisory Committee Report/Recommendation	Attachment ___
___ Hearing Officer's Report/Recommendations	Attachment ___
___ Response to Testimony/Comments	Attachment J
___ Prior EQC Agenda Items: (list)	Attachment ___
___ Other Related Reports/Rules/Statutes:	Attachment ___
___ Supplemental Background Information	Attachment ___

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The Department conducted public meetings and public hearings at 14 locations throughout the state. The verbal and written comments received are discussed in detail in the Hearing Report and Responsiveness Summary, Attachment J. The public testimony resulted in changes to the temporary rules. The Underground Storage Tank Financial Assistance Advisory Committee (USTFAA) reviewed the proposed changes and provided additional comments. The significant changes to the temporary rules are as follows:

1. **Aboveground Storage Tanks:** The proposed final rules allow a facility that replaces underground storage tanks with aboveground storage tanks (AST) to apply for financial assistance. The Department believes, however, that the legislature intended to provide financial assistance only to those persons who paid the motor fuel assessment. Fuel placed into ASTs is not presently assessed by SB 1215 assessment. The proposed final rules place those persons applying for financial assistance for ASTs on a priority list for funding pending a legislative review of this matter. Benefits will only be paid if the 1993 legislature acts to authorize payment to AST installations. Therefore, construction on ASTs should be delayed until the legislature acts.

2. **Move Facility:** The proposed final rules have been modified to allow an existing facility to relocate to a new location and receive financial assistance. This change

allows a person to move a facility, either voluntarily or involuntarily, to a new location provided the new location is within 5 miles of the original facility, serves the same customer base, is constructed within 90 days and both facility locations meet all applicable UST technical, financial responsibility and cleanup requirements.

3. **Seasonal Facilities:** The proposed rules change the "distance" requirement for Tier 4 financial assistance. Several persons commented on the unfairness of including part time and seasonal retail gas sales facilities within the 9 miles "distance" requirement. The proposed rules have been modified to exclude facilities that do not retail motor fuel at least three days per week during eleven months per year. While this change will allow several full time facilities to qualify for Tier 4 benefits, the change will not alter the benefits for the seasonal and part-time facilities.

4. **Interest Rates:** The proposed rules modify the interest rate reimbursement paid to lending institutions in an attempt to encourage lenders to loan money for longer than 5 years. Lending for longer than 5 years is necessary to keep monthly repayment schedules affordable for small businesses with low volume sales. The Wall Street Journal reference interest rate has been changed from the prime rate to the 10-year Treasury constant maturities interest rate, published weekly in the Federal Reserve publication H.15. This rate is recognized as more reflective of the cost of long-term financing. The new proposed rates allow the lender to select one of two methods of calculating the reimbursement:

a. Fixed Interest Rate: Based upon the loan term, the lender will receive an interest rate premium over the 10-year Treasury constant maturities interest rate, as follows:

Term of Loan (Years)	Increase over 10-year Treasury Constant Maturity
1 through 3	3.0 %
4 through 7	3.25%
5 through 11	3.75%
12 through 15	4.5 %
16 through 19	5.5 %
Exactly 20	6.75%

b. Adjusted Fixed Interest Rate: The interest rate reimbursement will be 3 percent over the 10-year

Treasury constant maturities interest rate for the first 3 years. On the anniversary dates of the loan at year 3, 6, 9, 12, 15, and 18 the interest rate will be adjusted upward or downward to a new interest rate equal to 3 percent over the 10-year Treasury constant maturities interest rate in effect at that time. The maximum change allowed at each anniversary date is 1 percent.

These proposed rule changes were reviewed and approved by the USTFAA Committee. The interest rate modifications were reviewed and approved by the Oregon Bankers Association and interested members of the UST Financial Assistance Lenders Work Group. Additionally, the petroleum marketing industry has agreed to sponsor the AST modifications to the statute for the 1993 legislature. The Department does not anticipate any additional testimony at the EQC meeting.

PROGRAM CONSIDERATIONS:

There are approximately 2,130 locations in Oregon with USTs that resell motor fuel. The Department anticipated that 1,800 facilities would qualify for financial assistance. By statute, the Department must receive a Letter of Intent or an application by April 1, 1992 and a signed Consent Agreement by October 1, 1992 from those who intend to apply for financial assistance. The Department received approximately 1,700 Letters of Intent or applications by the deadline. On May 5, 1992 the Department mailed Consent Agreements and instructions to all persons who filed a Letter of Intent or an application.

The Department has prepared a revised forecast of the impact of the proposed rule modifications. The proposed rules establish priorities for managing payment of financial assistance monies so that cash shortages do not occur during any year of the program. The Department estimates that it can fund 1,500 projects based on these proposed rules and estimated revenue of $1,100,000 per month. The Department analyzed the 1,700 Letters of Intent and determined there will be no Tier 2 applications (facilities where a tank owner owns more than 100 tanks in Oregon). The Department believes the original 200 Tier 2 facilities will occur as Tier 3 facilities, thus increasing the number of 50 percent grants. Funding more grant projects creates a temporary cashflow problem in the 93-95 biennium. By managing the number of projects approved for funding the Department can protect the fiscal integrity of the fund. The Department will be reporting to an appropriate legislative committee the fact

that under current program assumptions we may not be able to fund all eligible projects with existing revenue. We will also work with the legislature to determine if they would like to fund the additional 200 projects

The Department is forecasting a reduction in Pollution Control Tax Credit expenditures from an original estimate of $33,750,000 to a new estimate of $30,000,000.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Adopt temporary rules as permanent, with no changes.

   This alternative does not include the changes proposed by the public testimony or the changes in interest rate structure proposed by the advisory committee.

2. Adopt proposed rules.

   The rule modifications in this alternative will allow facilities to replace USTs with ASTs, allow facilities to be moved to a new nearby location, removes seasonal facilities from the Tier 4 distance criteria, and encourages lenders to lend for longer terms to a greater number of facilities. These changes will allow the program to better serve smaller communities by helping existing facilities to continue to resell motor fuel.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission adopt the modified rules, as presented in Attachments A, B, C, D, E, F and G.

Rationale for this action is presented in the discussion of alternatives above.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The rules implement SB 1215 passed by the 1991 legislature.

ISSUES FOR COMMISSION TO RESOLVE:

Assuming the Commission supports the proposed modifications to the temporary rules, there are no issues for the Commission to resolve.

INTENDED FOLLOWUP ACTIONS:

File the rule with the Secretary of State immediately upon EQC adoption.

Approved:

Section:

Division:

Director:

Report Prepared By: Larry D. Frost

Phone: 229-5769

Date Prepared: May 12, 1992

LDF:lf
STF1215X.RPT
May 12, 1992

Attachment A
Agenda Item F
6-1-92 EQC Meeting

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 172 - DEPARTMENT OF ENVIRONMENTAL QUALITY

UNDERGROUND STORAGE TANK FINANCIAL ASSISTANCE PROGRAM

340-172-005 AUTHORITY, PURPOSE, AND SCOPE

(1) These rules are promulgated in accordance with and under the authority of ORS 466.705 to 466.835 as amended by Chapter 863, Oregon Laws, 1991 (Senate Bill 1215).

(2) The purpose of these rules is to:

(a) provide for the regulation of persons who receive financial assistance for UST project work and buying UST insurance for underground storage tank facilities that hold or have held an accumulation of motor fuel for resale; and

(b) provide financial assistance to persons owning or responsible for underground storage tanks that hold or have held an accumulation of motor fuel for resale and are regulated by ORS 466.705 to 466.835 and federal regulations 40 CFR 280.

(3) These rules establish requirements and procedures for:

(a) applying and qualifying for financial assistance; and

(b) administration and enforcement of these rules by the Department.

340-172-010 DEFINITIONS

As used in these rules,

(1) "Aboveground Storage Tank" or "AST" means one or a combination of tanks that is used to contain an accumulation of motor fuel for resale and is not an underground storage tank.

Note: Some examples of ASTs include: 1) tanks located entirely aboveground, 2) tanks located in vaults entirely aboveground and 3) tanks in a below ground vault where all portions of the tanks can be physically inspected. By contrast, a tank with 10% or more of its volume covered by soil is an underground storage tank.

(2~~(1)~~) "Commercial lending institution" means any bank, mortgage banking company, trust company, stock savings bank, saving and loan association, credit union, national banking association, federal savings and loan association, cooperative financial institution

regulated by an agency of the Federal Government or this state, or federal credit union maintaining an office in this state.

(3[~~2~~]) "Commission" means the Environmental Quality Commission.

(4[~~3~~]) "Completed project" means UST that meets all the 1998 requirements of OAR Chapter 340, Division 150 **or an AST that meets all federal, state and local regulations for ASTs** and the property meets the cleanup levels in OAR Chapter 340, Division 122.

(5[~~4~~]) "Corrective action" means remedial action taken to protect the present or future public health, safety, welfare, or the environment from a release of a regulated substance. "Corrective action" includes but is not limited to:

(a) The prevention, elimination, removal, abatement, control, minimization, investigation, assessment, evaluation or monitoring of a hazard or potential hazard or threat, including migration of a regulated substance; or

(b) Transportation, storage, treatment or disposal of a regulated substance or contaminated material from a site.

(6[~~5~~]) "Current Ratio" means CURRENT ASSETS mathematically divided by CURRENT LIABILITIES, as defined in Appendix A.

(7[~~6~~]) "Debt Service Coverage Ratio" means NET PROFIT + NON-CASH mathematically divided by CURRENT PORTION OF LONG TERM DEBT as defined in Appendix A.

(8[~~7~~]) "Debt to Equity Ratio" means TOTAL LIABILITIES mathematically divided by TOTAL EQUITY, as defined in Appendix A.

(9[~~8~~]) "Decommission" means to remove from operation an underground storage tank, including temporary or permanent removal from operation, abandonment in place or removal from the ground.

(10[~~9~~]) "Department" means the Department of Environmental Quality.

(11[~~10~~]) "Director" means the Director of the Department of Environmental Quality.

(12[~~11~~]) "Essential services grant" means a grant provided to a person qualifying for Tier 4 benefits under these rules.

(13[~~12~~]) "Facility" means any one or combination of underground storage tanks and underground pipes connected to the tanks, used to contain an accumulation of motor fuel, including gasoline or diesel oil, that are located at one contiguous geographical site. The Department further defines facility to include all underground storage tanks that hold or have held an accumulation of motor fuel for resale at the site.

(14~~[13]~~) "Financial responsibility requirements" means the UST financial responsibility requirements in OAR 340-150-002, OAR 340-150-004 and FR 40 CFR 280.

(15~~[14]~~) "Grant" means payment for costs of UST project work.

(16~~[15]~~) "Guarantor" means any person other than the permittee who by guaranty, insurance, letter of credit or other acceptable device, provides financial responsibility for an underground storage tank as required under ORS 466.815.

(17~~[16]~~) "Imminent hazard" means petroleum contamination or threat of petroleum contamination to a ground water drinking water supply or where a spill or release of petroleum is likely to cause a fire or explosion that threatens public life and safety or threatens a critical habitat or an endangered species.

(18~~[17]~~) "Investigation" means monitoring, surveying, testing or other information gathering.

(19~~[18]~~) "Licensed" means that a firm or an individual with supervisory responsibility for the performance of tank services has met the Department's minimum experience and qualification requirements to offer or perform services related to underground storage tanks and has been issued a license by the Department to perform those services.

(20~~[19]~~) "Licensed Public Accountant" means a Certified Public Accountant (CPA) or a Public Accountant (PA) licensed to practice in Oregon.

(21~~[20]~~) "Local unit of government" means a city, county, special service district, metropolitan service district created under ORS chapter 268 or political subdivision of the state.

(22~~[21]~~) "Motor fuel" means a petroleum or a petroleum-based substance that is a motor gasoline, ~~[aviation gasoline,]~~ No.1 or No. 2 diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor engine.

(23~~[22]~~) "New tank standards" means modifying an UST or replacing an UST to comply with the 1998 technical requirements of OAR Chapter 340, Division 150 and FR 40 CFR 280.

(24~~[23]~~) "Operator" means any person in control of, or having responsibility for, the daily operation of the UST **or AST system**.

(25~~[24]~~) "Owner" means the owner of an underground storage tank.

(26~~[25]~~) "Permittee" means the owner or a person designated by the owner who is in control of or has responsibility for the daily operation or daily maintenance of an underground storage tank under a permit issued pursuant to OAR Chapter 340, Division 150.

(27[~~26~~]) "Person" means an individual, trust, firm, joint stock company, corporation, partnership, joint venture, consortium, association, state, municipality, commission, political subdivision of a state or any interstate body, any commercial entity or the Federal Government or any agency of the Federal Government.

(28[~~27~~]) "Phase I environmental audit" means a visual inspection of the property and adjacent properties, including inspection of public records, for the purpose of discovering environmental contamination from past uses.

(29[~~28~~]) "Phase II environmental audit" means investigation to discover or characterize environmental contamination.

(30[~~29~~]) "Pollution prevention grant" means a grant provided to a person qualifying for Tier 3 benefits under these rules.

(31[~~30~~]) "Property owner" means the legal owner of the property where the underground storage tank resides.

(32[~~31~~]) "Release" means the discharge, deposit, injection, dumping, spilling, emitting, leaking or placing of a regulated substance from an underground storage tank into the air or into or on land or the waters of the state, other than as authorized by a permit issued under state or federal law.

(33) "Retail gas sales facility" means business reselling motor fuel to the public at least three (3) days per week during eleven (11) months each calendar year.

(34[~~32~~]) "Site assessment" means evaluating the soil and groundwater adjacent to the UST system for contamination from motor fuel.

(35[~~33~~]) "Soil matrix cleanup service provider" is an individual or firm licensed to offer or perform soil matrix cleanup at regulated underground storage tanks in Oregon.

(36[~~34~~]) "Soil matrix cleanup supervisor" means a licensed individual operating alone or employed by a soil matrix cleanup service provider and charged with the responsibility to direct and oversee the performance of soil matrix cleanup at an underground storage tank facility.

(37[~~35~~]) "Stage I vapor collection system" means a system where gasoline vapors are forced from a tank into a vapor-tight holding system or vapor control system through direct displacement by the gasoline being loaded.

(38[~~36~~]) "Stage II vapor collection system" means a system where at least 90 percent, by weight, of the gasoline vapors that are displaced or drawn from a vehicle fuel tank during refueling are transferred to a vapor-tight holding system or vapor control system.

(39[~~37~~]) "Supervisor" means a licensed individual operating alone or employed by a contractor and charged with the responsibility to direct and oversee the performance of tank services at a underground storage tank facility.

(40[~~38~~]) "Tank Services" include but are not limited to tank installation, permanent decommissioning, retrofitting, testing, and inspection.

(41[~~39~~]) "Tank Services Provider" is an individual or firm registered and, if required, licensed to offer or perform tank services on regulated underground storage tanks in Oregon.

(42[~~40~~]) "Tier" means one of four levels of financial assistance a person may qualify to receive under these rules.

(43[~~41~~]) "Underground storage tank" or "UST" means an underground storage tank as defined in OAR Chapter 340, Division 150.

(44[~~42~~]) "USTCCA Fund" means the Underground Storage Tank Compliance and Corrective Action Fund established by ORS 466.790.

(45[~~43~~]) "UST Project work" means conducting corrective action, replacing UST systems with new UST systems meeting new tank standards, upgrading underground storage tank systems to new tank standards, **replacing UST systems with aboveground storage tank systems,** and installing stage I and stage II vapor collection systems, including hoses and nozzles, at an underground storage tank facility location holding or that held an accumulation of motor fuel for resale.

340-172-020 GENERAL PROVISIONS, UST FINANCIAL ASSISTANCE

(1) To qualify for financial assistance under these rules, a person:

(a) must be the owner of the USTs at a facility holding or that held an accumulation of motor fuel for resale; or

(b) must be the person responsible for the USTs at a facility holding or that held an accumulation of motor fuel for resale. A person responsible for the USTs at the facility must be:

(A) the property owner; or

(B) the permittee of the USTs; and

(c) may be required to demonstrate financial need.

(2) A person may apply for financial assistance at the UST facility jointly with other eligible persons as determined in subsection (1) of this section if the persons receiving financial assistance provide a copy of a signed legal contract with the application that defines the

proportionate share of the financial assistance to be paid to each person;

(3) A person owning or responsible for an UST may qualify to receive any or all of the following financial assistance for UST project work at a facility location. Individual tanks at a facility location with multiple tanks are not each eligible for separate assistance.

(a) Copayment for a portion of the insurance premium for a policy that meets the UST financial responsibility requirements (See OAR Chapter 340, Division 174).

(b) Grant (See OAR Chapter 340, Division 175).

(c) Loan guarantee for a loan obtained from a commercial lending institution (See OAR Chapter 340, Division 176).

(d) Reduced interest rate for a loan obtained from a commercial lending institution (See OAR Chapter 340, Division 178).

(4) A person owning or responsible for an UST may qualify to receive financial assistance for UST project work provided all of the following conditions are met.

(a) The USTs are regulated or were previously regulated by OAR Chapter 340, Division 150 and FR 40 CFR 280.

(b) UST project work;

(A) was started after December 22, 1988;

(B) was approved for financial assistance by issuance of an UST financial assistance confirmation letter pursuant to OAR Chapter 340, Divisions 174, 175, 176 or 178 on or before December 31, 1994; and

(C) will be started by March 1, 1995.

(c) Each UST has a valid UST permit or had a valid UST permit before permanently decommissioning, as required by OAR Chapter 340, Division 150.

(d) The UST holds an accumulation of motor fuel for resale or that held an accumulation of motor fuel for resale before temporary or permanent decommissioning (closure).

(e) Financial assistance under these rules was not provided to another person for work approved under these rules.

(f) A site assessment for all tanks containing motor fuel for resale is to be or has been performed in accordance with OAR Chapter 340 Division 122 and these rules.

(g) The UST does not hold aviation motor fuel.

(h) UST project work meets or will meet, upon project completion, the 1998 requirements of OAR Chapter 340, Division 150, including;

(A) corrosion resistance;

(B) spill prevention and overfill prevention;

(C) leak detection; and

(D) where applicable, Stage I and Stage II vapor collection system requirements in OAR Chapter 340, Division 22.

(i) The UST project site will meet the cleanup standards in OAR Chapter 340, Division 122.

(5) A person owning or responsible for USTs permanently decommissioned (closed) in accordance with federal regulations 40 CFR 280 between December 22, 1988 and April 1, 1992 and not replaced with another UST shall meet the requirements of subsections (4)(a) through (i) of this section.

(6) Financial assistance may be provided for any or all of the following:

(a) Site assessment and corrective action to clean up soil and groundwater contamination in accordance with OAR Chapter 340, Division 122 and/or in accordance with the decommissioning requirements in OAR Chapter 340, Division 150.

(b) upgrading or replacing an UST to new UST standards in accordance with OAR Chapter 340, Division 150 and federal UST regulations, FR 40 CFR 280.

(c) Replacing existing USTs with aboveground storage tanks in accordance with state or local fire codes and federal aboveground storage tank regulations, 40 CFR Part 112.

(d~~[c]~~) Installation of stage I and stage II vapor collection system underground piping, hoses and nozzles in accordance with OAR Chapter 340 Division 22 to meet present or future requirements for stage I or stage II vapor collection.

(e~~[d]~~) Copayment for a portion of the insurance premium for a policy that meets UST financial responsibility requirements of OAR Chapter 340, Division 150 and federal UST regulations, FR 40 CFR 280.

Note: The legislature intended to provide financial assistance for the purpose of upgrading motor fuel resale facilities to comply with Federal/State underground storage tank regulations. The Department will not approve financial assistance where the person intends to close a facility and not resell motor fuel.

(7) Project costs for UST project work shall meet the requirements of this section.

(a) Financial assistance for UST project work is available for:

(A) equipment, labor and materials provided by a licensed UST service provider;

(B) equipment, labor and materials to replace an UST with an AST;

(C[~~B~~]) equipment, employee labor and materials supplied by the applicant, provided the labor charge and hours charged to the project are approved by the Department;

(D[~~C~~]) interest paid lender during construction phase;

(E[~~D~~]) loan fees;

(F[~~E~~]) application and loan related project management, financial management or similar consultant fees;

(G[~~F~~]) preparing engineering reports, schedules, plans, designs, and conducting project oversight and inspections;

(H[~~G~~]) site assessment including engineering and hydrological investigations, testing of soil and water samples and related reports;

(I[~~H~~]) corrective action to remove petroleum contamination of soil and surface and ground waters;

(J[~~I~~]) treatment and disposal of contaminated soil, liquids, sludges, and USTs;

(K[~~J~~]) tank tightness testing required as part of UST project work; and

(L[~~K~~]) other costs that the Department may approve.

(b) Financial assistance for UST project work is not available for:

(A) work on an UST that is not supervised by a licensed UST supervisor;

(B) acquisition of land and rights-of-way;

(C) costs which are treated as operation and maintenance expenses under general accounting practices;

(D) costs previously paid under OAR Chapter 340, Division 170;

(E) Tax credits claimed and received as an Oregon Pollution Control Tax Credit under OAR Chapter 340, Division 16;

(F) costs resulting from lost business while an UST is being upgraded, an UST is being replaced or while corrective action is being conducted;

(G) insurance premiums or other costs associated with meeting state and federal UST financial responsibility requirements before completion of the project;

(H) labor provided by an employee of the applicant where the labor has not been approved by the Department;

(I) costs that are recoverable by the applicant, the property owner, the tank owner or permittee from insurance coverage or other persons or entities liable for those costs;

(J) costs for bodily injury or damage to personal property of a third party;

(K) costs not directly attributed or contributing to completion of the project;

(L) interest and financing charges due to untimely payment of contractors and suppliers of material, equipment and labor;

(M) labor performed by the applicant;

(N) tanks other than tanks containing motor fuel for resale;

(O) payment for insurance required to demonstrate financial responsibility in accordance with OAR 340-172-090;

(P) annual tank tightness testing not required as part of UST project work; and

(Q) other work not expressly included under Subsection (a) of this section.

(8) An applicant may only receive financial assistance for UST project work if all applicable financial assistance confirmation letters are signed by the Department on or before December 31, 1994.

(9) An applicant may receive financial assistance when relocating an existing facility to another geographical location, providing:

(a) the new resale facility serves the same customer base as the original facility;

(b) the new resale facility is within five (5) road miles of the

original facility unless the Department determines the facility meets the requirements of subsection (a) of this section;

(c) construction is completed at the new resale facility within 90 days after confirmation of UST project work unless otherwise approved by the Department;

(d) financial assistance is based upon the original location; and

(e) both facilities meet the requirements of these rules, including a site assessment in accordance with the requirements of OAR 340-172-050 at the location of any UST or AST at the new resale facilities.

(**10**~~9~~) If the applicant disputes a Department finding under this section, the applicant may seek resolution of the dispute through the appeals procedures in OAR 340-172-110.

340-172-022 DOCUMENTS REQUIRED TO RECEIVE FINANCIAL ASSISTANCE

(1) To receive financial assistance under this program an applicant must submit:

(a) the combination of:

(A) on or before April 1, 1992, a Letter of Intent to apply for financial assistance, Appendix B of these rules; and

(B) on or before October 1, 1994, an application for financial assistance, described by these rules; or

(b) on or before April 1, 1992, an application for financial assistance, described by these rules.

(2) To receive financial assistance under this program an applicant must submit, on or before October 1, 1992, a signed Consent Agreement, Appendix C of these rules.

Note: Applications previously submitted under Chapter 1071, Oregon Laws 1989, (HB 3080) will not meet the requirements of this section. A new application is needed.

(3) To qualify for an essential services grant an applicant must sign a property lien agreement as required by OAR 340-175-055.

340-172-030 APPLICATION PROCESS FOR UST FINANCIAL ASSISTANCE

(1) Any person wishing to obtain UST financial assistance from the Department shall submit a written application on a form provided by the Department. Applications must be submitted no later than October 1,

1994. All application forms must be completed in full, and accompanied by all required attachments (to be considered with the application).

(2) Applications which are unsigned or which do not contain the required attachments will not be considered complete by the Department. The application will not be considered complete until the requested information is received.

(3) After the application is determined complete, and reviewed by the Department and found to be in compliance with these rules, the Department will, where applicable:

(a) issue a loan guarantee certificate;

(b) issue a reduced interest rate certificate;

(c) issue an insurance premium copayment certificate;

(d) issue a pollution prevention or essential services grant certificate; or

(4) If, upon review of an application, the Department determines that the application does not meet the requirements of the statutes and rules, the Department shall notify the applicant in writing of this determination.

(5) Determinations by the Department may be appealed pursuant to OAR 340-172-110.

340-172-040 INFORMATION REQUIRED ON FINANCIAL ASSISTANCE APPLICATION

(1) The UST financial assistance application shall include, at a minimum:

(a) the applicant's name, mailing address and phone;

Note: An applicant must be the property owner, tank owner or permittee.

(b) the signatures and phone numbers of the property owner, the tank owner and the permittee of facility;

(c) the UST facility location information including;

(A) facility name, street address, city and county; and

(B) where the applicant intends to qualify for Tier 3 and Tier 4 financial assistance;

(i) the distance to nearest retail **gas sales** ~~[UST]~~ facility ~~[reselling motor fuel]~~ if the applicant's facility is outside an incorporated city measured in accordance with OAR 340-172-070 (2)(d)(C)(iii); or

(ii) the name of the city, if the applicant's facility is the only retail UST facility reselling motor fuel within a city listed in the 1991/1992 Oregon Blue Book;

(d) the UST facility number;

(e) the date of the application;

(f) Description of the UST project work area including a scaled drawing (contractor's or engineer's drawing) showing, but not limited to, property boundaries, location of structures, location and identification of the existing underground storage tanks containing an accumulation of motor fuel. **Where AST(s) replace UST(s) the application shall also include:**

(A) Description of the AST project work, installation specifications and an scaled installation drawing (contractor's or engineer's drawing) showing all information necessary to determine compliance with local and state fire codes and federal regulations, 40 CFR 112 including, but not limited to;

(i) spill containment structures,

(ii) control equipment to allow removal of motor fuel and rainwater from the spill containment area,

(iii) overfill prevention devices,

(iv) piping and valving,

(v) atmospheric and emergency venting, and

(vi) tank construction details.

(B) A copy of the Spill Prevention Control and Countermeasure (SPCC) Plan certified by a registered professional engineer, as required by federal regulations, 40 CFR 112;

(g) Description of the UST project work including a scaled drawing (contractor's or engineer's drawing) showing those items and activities that are not part of an UST system but are required because of construction interference;

Note: OAR 340-172-020(~~6~~[5])(a) through (~~e~~[d]) describe the UST project work that may qualify for financial assistance.

(h) Total project cost in the form of a bid or estimate for the proposed UST project work or the actual cost where UST project work is completed prior to filing an application under these rules. Where there is no site assessment information on possible

petroleum contamination, a bid or estimate shall include the following costs for corrective action:

(A) For a facility with:

(i) One (1) tank, include soil cleanup costs of $6,000.

(ii) Two (2) tanks, include soil cleanup costs of $9,000.

(iii) Three (3) tanks, include soil cleanup costs of $12,000.

(iv) Four (4) tanks, include soil cleanup costs of $15,000.

(v) Five (5) tanks, include soil cleanup costs of $18,000.

(vi) Six or more tanks, include soil cleanup costs of $21,000.

(B) Include groundwater cleanup costs of $25,000 for each facility where seasonal groundwater exists at 10 feet or less below the surface of the ground according to available records from the Oregon Department of Water Resources, U.S. Soil Conservation Service, U.S. Geological Service, or equivalent information;

(i) for persons intending to qualify for Tier 2, Tier 3, and Tier 4 financial assistance, a determination of the financial assistance ratios in subsection (2) of this section by an Oregon licensed Public Accountant based upon the tank owner's business or personal financial information showing all assets, income from all sources, outstanding debts and liabilities, including financial information from sole proprietors, all partners of a partnership or joint venture, corporations, and all wholly owned subsidiaries of corporations. The information furnished by the applicant to the accountant shall be adequate to allow the licensed Public Accountant to prepare a compiled pro forma fiscal year-end financial statement and shall include:

(A) federal and state income tax filings for most recent fiscal year; or

(B) the most recent pro forma fiscal year-end financial statement or, where unavailable, on the most recent fiscal year, a compiled pro forma year end financial statement prepared by a licensed Public Accountant;

(j) where an UST remains in the ground and a site assessment is not part of the UST project work, the application shall include a report of the site assessment work described in OAR 340-172-050;

(k) insurer's written quote; and

(l) other information required by the Department.

(2) A licensed Public Accountant shall determine the following financial ratios from the information provided by the applicant in subsections (1)(i) and (3) of this section and definitions in Appendix A. The calculated ratios shall be rounded upward to the nearest hundredth whole number.

(a) Current Ratio;

(b) Debt to Equity Ratio; and

(c) Debt Service Coverage Ratio.

Note: See OAR 340-172-070(3) and Appendix A for criteria to determine the ratios in this subsection.

(3) The following estimate of liabilities associated with upgrading the USTs containing motor fuel for resale shall be added to the applicant's compiled financial statement prior to calculation of the ratios in subsection (2) of this section. For each facility for which an application is submitted for financial assistance the licensed public accountant shall add the liabilities associated with a $125,000, 5.0% fixed interest rate, 10 year term loan. The $125,000 pro forma liability for UST project work is comprised of $35,000 for corrective action work and $90,000 for other UST project work.

340-172-050 SITE ASSESSMENT

(1) Unless the Department finds the UST site meets the decommissioning requirements in OAR Chapter 340, Division 150 or the cleanup standards described in OAR Chapter 340, Division 122 based upon currently available information, a person applying for financial assistance must assess the site for contamination in accordance with this section.

(2) One of the following site assessments shall be conducted and submitted to the Department for approval.

(a) A complete report of a site assessment conducted after December 22, 1988.

(b) A site assessment following the sampling method described in subsection (3) of this section. The proposed sampling plan shall be submitted to the Department for approval before initiating any work.

(c) An alternate sampling plan and site assessment procedure determined by the applicant and approved by the Department before initiating any work.

(3) Unless otherwise approved by the Department pursuant to subsection (2)(c) of this section, collect soil or water samples by boring or test pits:

(a) Where groundwater is not present, collect one sample in each boring or test pit from the native soils at an elevation below, but no more than two feet below, the bottom of any underground storage tank and from any soil that appears to be contaminated if encountered during installation of borings or test pits;

(b) Where groundwater is present, collect a soil and water sample at the soil/water interface in each boring or test pit;

(c) Borings or test pits shall be located along each side of an imaginary rectangular area drawn around an UST or group of USTs so that each side of the rectangle lies a maximum of three feet from the nearest UST.

(A) The imaginary rectangle may be drawn around a group of USTs when each UST is within six feet of an adjacent UST.

(B) A separate imaginary rectangle must be drawn around each UST that is located more than six feet from an adjacent UST.

(C) A minimum of one boring or test pit shall be located at the midpoint on each side of the imaginary rectangle. Where a side exceeds fifteen feet, two or more borings or test pits shall be located equally spaced along the side. Borings or test pits shall not be located more than twenty five feet apart along any side of the rectangle.

(d) Analyze the soil and/or ground water samples in accordance with OAR 340-122-205 through -360.

(4) The sample collection and analytical procedures shall meet the requirements of OAR Chapter 340 Division 122.

(5) The site assessment must be performed under the direction or supervision of a licensed UST soil matrix supervisor, registered professional engineer, registered geologist, or a certified professional soil scientist (a soil scientist with certification and inclusion in the American Registry of Certified Professionals in Agronomy, Crops, and Soils, Ltd.(ARCPACS)).

Note: In addition to the site assessment described by this section, commercial lending institutions or insurers may require a person to complete Phase I and Phase II environmental audits before issuing a loan.

340-172-060 NOTICE OF COMPLIANCE WITH CLEANUP STANDARDS

(1) The Department will issue a written notice of compliance with the Department's soil and groundwater cleanup standards where no cleanup is required, the results show compliance with applicable standards and the applicant has completed:

(a) the site assessment requirements in OAR 340-172-050; or

(b) the UST closure requirements in OAR Chapter 340, Division 150;

(2) The Department will issue a written notice of compliance with the Department's soil and groundwater cleanup standards where cleanup of soil and cleanup of groundwater has been performed in accordance with and meets the requirements of OAR Chapter 340 Division 122.

(3) Within 30 days after receipt of a complete decommissioning report or a complete site assessment report, the Department will determine if the facility meets the Department's cleanup standards and will provide a written determination of compliance. Incomplete reports will be returned to the applicant.

(4) Within 90 days after successful completion of correction action and receipt of a final corrective action report, the Department will determine if the facility meets the Department's cleanup standards and will provide a written determination of compliance. Incomplete reports will be returned to the applicant.

340-172-070 DETERMINATION AND CONDITIONS OF FINANCIAL ASSISTANCE

(1) The Department shall determine the applicant's financial assistance tier from;

(a) information provided in the application;

(b) the financial ratios determined in accordance with OAR 340-172-040(2) by a licensed public accountant; and

(c) tank ownership information available in the Department's files or electronic database at the time of application. For purposes of financial need, tank ownership shall include all tanks at all facility locations with the same legal ownership such as sole proprietor, joint ventures, partnerships, corporations or other similar business ownerships. In the case of corporations, tank ownership shall include all tanks at all facility locations owned by parent corporations and all wholly owned subsidiaries of the parent corporation.

(2) The Department shall award financial assistance to an applicant in accordance with these rules and OAR Chapter 340, Divisions 174, 175,

176, and 178 where the applicant meets the following financial assistance tier criteria:

(a) Tier 1: Own or responsible for one (1) or more USTs holding or that previously held an accumulation of motor fuel for resale.

(b) Tier 2:

(A) Own or responsible for one hundred (100) or more USTs holding or that previously held an accumulation of motor fuel for resale; and

(B) meet two or more of the financial assistance criterion in subsection (3) of this section.

(c) Tier 3:

(A) Own or responsible for one (1) to ninety nine (99) USTs holding or that previously held an accumulation of motor fuel for resale; and

(B) either:

(i) meet two or more of the financial assistance criterion in subsection (3) of this section; or

(ii) meet the Tier 4 location requirements described at subsection (2)(d)(C) of this section.

(d) Tier 4:

(A) Own or responsible for one (1) to twelve (12) USTs holding or that previously held an accumulation of motor fuel for resale; and

(B) Meet two (2) or more of the financial assistance criteria in subsection (3) of this section; and

(C) The retail facility is either:

(i) the only retail facility with UST holding or that previously held an accumulation of motor fuel for resale within a town listed in the current edition of the 1991/1992 Oregon Blue Book; or

(ii) if outside a town listed in the current edition of the 1991/1992 Oregon Blue Book, nine (9) miles or more from another retail <u>gas sales</u> facility ~~[with an UST holding an accumulation of motor fuel for resale]~~, measured in accordance with (2)(d)(C)(iii) of this section.

(iii) The distance shall be the shortest distance between facilities. The distance shall be measured between the nearest public driveway entrance of each facility over the shortest distance on a public road. Distances shall be rounded upward to the nearest tenth mile. The adjacent **retail gas sales** facility may be inside or outside a town. The Department may verify the distance where the distance measured by the applicant is between 9 and 10 miles. Measurements by the Department shall be the final distance determination.

(3) Financial need criteria:

(a) the Current Ratio (CR) is less than or equal to 1.60;

(b) the Debt to Equity Ratio (DE) is greater than or equal to 1.60;

(c) the Debt Service Coverage Ratio (DSC) is less than or equal to 3.20;

(4) The Department may reconsider an award of financial assistance where;

(a) the applicant has requested reconsideration of the award, in writing;

(b) UST project work including soil or groundwater cleanup has started;

(c) a Tier of greater financial assistance is available for the facility;

(d) the lender indicates the applicant can borrow additional monies necessary to complete the newly identified corrective action work;

(e) the Department determines the estimated soil and groundwater cleanup costs are appropriate and exceed $40,000 (at least $5,000 above the $35,000 included for the initial financial need evaluation); and

(f) the applicant has provided a new determination of the financial ratios in accordance with subsection 340-172-040(2), where the estimated corrective action costs above $35,000 are added to the UST project work at the facility.

(5) An award of financial assistance under these rules requires:

(a) Department approval, where applicable, of the:

(A) completed application;

(B) site assessment conducted under OAR 340-172-050;

(C) corrective action plan required by OAR 340-122-250;

(D) estimated eligible costs; and

(E) time schedule for completing the work;

(b) that the USTCCA fund has sufficient money allocated to the program from which financial assistance is requested; and

(c) that the financial assistance requested does not exceed the financial assistance limits at OAR Chapter 340, Divisions 172, 174, 175, 176, and 178.

(6) The Department may include conditions in an award of financial assistance, requiring the applicant to:

(a) conduct work within a Department established time schedule where the USTCCA Fund cannot fund the UST project work as scheduled by the applicant;

(b) submit progress reports or payment records at stated intervals before disbursement of grant funds;

(c) allow Department personnel to enter and inspect the project site at reasonable times;

(d) maintain project accounts and records to support the eligibility of expenditures; the records must clearly separate eligible and ineligible project costs;

(e) obtain all titles and easements necessary to provide authority to complete the proposed project; and

(f) comply with other terms and conditions necessary to ensure the project is completed in accordance with the approved plans.

340-172-072 FINANCIAL ASSISTANCE PRIORITY

(1) Until monies are collected and placed into the USTCCA Fund in accordance with Chapter 863, Oregon Laws, 1991 (Senate Bill 1215) monies in the USTCCA Fund, other than monies necessary to pay the Department's program administration expenses, will be allocated in the following priority order:

(a) First to satisfy the present and future obligations for the financial assistance commitments under ORS 466.705 through 466.835 and ORS 466.895 through 466.995, as amended by Chapter 1071, Oregon Laws, 1989. (House Bill 3080).

(b) Second to fund Tier 4 UST project work allowed under these rules and meeting the following criteria:

(A) The facility must retail motor fuel.

(B) Only one facility per county.

(C) Applicant must agree to start construction in calendar year 1992.

(D) Applicant must have secured financing by October 31, 1992.

(E) For applications submitted and found complete by the Department before June 30, 1992 the distance between the facility and the nearest retail **gas sales** facility must exceed 25 miles.

(F) For applications submitted and found complete by the Department on or after June 30, 1992 the facility must be the only retail facility in an incorporated city or the distance between the facility and the nearest retail **gas sales** facility must exceed 9 miles.

(G) Approval will be on first come, first serve basis, based upon date of Department determination of a complete application. In the event two complete applications for the same county are received on the same day, the facility farther from another retail **gas sales** facility will be awarded the financial assistance under this section.

(2) Monies collected and placed into the USTCCA Fund in accordance with ORS 466.705 through 466.835 as amended by Chapter 863, Oregon Laws 1991 (Senate Bill 1215), other than monies to pay the Department's program administration expenses, will be allocated in the following priority order:

(a) Each periodic transfer of new revenue into the fund shall be reserved to fund Tier 4 projects on a first come, first serve, basis.

(b) After funding Tier 4 projects the next forty percent (40%) of each periodic transfer of new revenue into the fund shall be used to fund applications for UST project work completed prior to April 1, 1992 on a first come, first serve, basis, based upon the date of Department determination of a complete application. Funds not expended during a transfer period shall be used for applications qualifying for funding in subsection (2)(c) of this section.

(c) The remaining Tiers 1, 2, and 3 applications shall next be funded on a first-come first-serve basis, based upon the date of Department determination of a complete application. Applications not funded during a funding transfer period qualify for funding during a subsequent period.

NOTE: It is expected that transfers of new revenue into the USTCCA Fund will occur monthly where the fund source is an assessment on

motor fuel deposited into underground storage tanks for resale and will occur every three months where the fund source is a petroleum loading fee.

(3) **The Department will receive and conditionally approve projects where ASTs replace existing USTs prior to the legislature reviewing and approving AST replacement projects for financial assistance under these rules. Applications for AST replacement projects receiving conditional approval will be immediately funded at the time of legislative action, subject only to funds being available in the USTCCA Fund.**

340-172-090 FINANCIAL RESPONSIBILITY

(1) Applicants receiving UST financial assistance under these rules must demonstrate compliance with the financial responsibility requirements of OAR 340-174-060 and Division 150 within 60 days of the Department issuing a letter requiring demonstration of financial responsibility pursuant to OAR Chapter 340, Division 174.

(2) The applicant shall request copayment from the Department within 30 days after receipt of the letter requiring demonstration of financial assistance. The request shall conform to the requirements of OAR Chapter 340, Division 174.

340-172-100 RECORDS

(1) The Department and commercial lending institutions shall have access to books, documents, papers and records of the applicant which are directly pertinent to qualifying for financial assistance for the purpose of making audit, examination, excerpts and transcripts. The applicant shall maintain these records for three years after upgrading the UST to new tank standards, ~~[or]~~ replacement of the UST**, or completion of the AST project**.

340-172-110 APPEAL PROCEDURES

(1) If an applicant disagrees with the Department's decision regarding financial assistance for that applicant under these rules, the applicant may request a formal contested case hearing in accordance with ORS 183.310 through ORS 183.550 and rules promulgated thereunder.

(2) A request for a formal contested case hearing shall be in writing and received by the Department within twenty (20) days after the Department awards or denies financial assistance.

(a) The request for a formal contested case hearing must include:

(A) the name, mailing address and telephone number of the requestor; and

(B) a brief, clear summary of the reasons for requesting the hearing.

(3) In addition to requesting a contested case hearing, the Department encourages the requestor to ask for an informal review to resolve the disagreement. The informal review will be held at a time and place agreed upon by the Department and the requestor within thirty (30) days after the Department receives the request for formal contested case hearing. The Department shall send a meeting notice to all review committee members; and by certified mail, return receipt requested, to the requestor.

(4) The Department informal review committee shall be:

(a) the UST Compliance Section Manager;

(b) the UST Project Reviewer or the UST Regional Advisor; and

(c) the Finance Section Manager. The Finance Section Manager shall serve as chair.

(5) The requestor shall have the opportunity before and during the informal review to provide any additional relevant information. The requestor may be accompanied by persons involved in the UST project work such as licensed Public Accountant, project manager, consultant, licensed Service Provider or Supervisor.

(6) When applicable, the Department will issue an amended determination and corresponding certificates based on the recommendation of the informal review committee within thirty (30) days after completion of the informal review.

340-172-120 DEFERRAL OF ENFORCEMENT

(1) Where a person who is the tank owner, property owner or permittee has submitted a financial assistance application or has filed a signed Letter of Intent or Consent Agreement (Appendix B) in accordance with these rules the facility shall not be subject to enforcement action of the technical or financial responsibility requirements of OAR Chapter 340, Division 150 on the UST facility if the person has made a good faith effort to either secure a confirmation letter for UST project work by December 31, 1994 or permanently close the UST facility on or before December 31, 1994 except for;

(a) UST permit requirement, including permit fees;

(b) corrective action requirement in the event of an imminent hazard, as defined in OAR 340-172-010(17).

(c) permanent decommissioning requirements where the applicant permanently decommissions an UST at the UST facility.

(2) The requirements listed in the Consent Agreement will be deferred from enforcement until December 31, 1994 or sixty (60) days after the UST project work is complete which ever comes first.

(3) The person signing the consent agreement must;

(a) report all suspected releases to the Department of Environmental Quality with 24 hours and investigate all suspected releases;

(b) report all confirmed releases to the Department of Environmental Quality with 24 hours; and

(c) take appropriate corrective action in accordance with OAR Chapter 340, Divisions 122 and 150 in the event of an imminent hazard as defined in OAR 340-172-010(17).

340-172-130 ENFORCEMENT AND TERMINATION OF FINANCIAL ASSISTANCE

(1) The Department may terminate financial assistance and require repayment of any financial assistance by any person receiving financial assistance under these rules if the person:

(a) fraudulently obtains or attempts to obtain financial assistance;

(b) knowingly fails to report any release of a regulated substance at the UST facility as required by OAR 340-122-220 if the release occurred before or after filing an application under these rules.

(c) is ordered by the Department to comply with the requirements of Chapter 340, Divisions 172, 174, 175, 176 and 178 and applicable underground storage tank regulations in OAR Chapter 340, Chapter 122, Chapter 150, Chapter 160, and Chapter 162; or

(d) a civil penalty is assessed by the Director.

(2) A written determination to terminate financial assistance shall be made by the Department for each affected facility and shall identify the facility, the UST project work, the financial assistance benefits, the persons responsible for repayment of the financial assistance, and the schedule for repayment of the financial assistance monies to the Department. Repayment shall be required for all monies expended for financial assistance under these rules including fees paid by the Department directly related to financial assistance at this facility.

(3) Any person applying for assistance or receiving financial assistance under there rules is subject to the enforcement requirements of ORS 466.895 and 466.995 and OAR Chapter 340, Division 12.

(4) Any person subject to enforcement under this section may appeal the enforcement action in accordance with OAR 340-172-110 of these rules and OAR Chapter 340, Division 11.

340-172-140 COST CONTAINMENT

(1) To assure appropriate expenditure of financial assistance funds, the Department may require a person receiving financial assistance under these rules to manage UST project work under the direction of the Department. The Department may require the applicant to:

(a) delay start of the UST project work where adequate funds are not available from the UST Compliance and Corrective Action Fund to complete the UST project work, as scheduled;

(b) suspend or stop UST project work where;

(A) UST project work is not in accordance with these rules; or

(B) adequate funds are not available from the UST Compliance and Corrective Action Fund to complete the UST project work;

(c) seek alternate bids or project proposals where the Department determines the applicant's bid or proposal for the UST project work is at least (20%) greater than similar UST project work;

(d) select alternate bids or project proposals where the alternate bid or proposal required in subsection (c) of this section is at least 20% less than the applicant's bid or proposal; or

(e) reduce scope of the UST project work where adequate funds are not available from the UST Compliance and Corrective Action Fund to complete the UST project work. The reduction in project scope may include, but is not limited to:

(A) size of each UST;

(B) number of USTs;

(C) type of leak detection system;

(D) type of spill and overfill prevention equipment; and

(E) cleanup to meet cleanup standards that are not more restrictive than OAR Chapter 340, Division 122.

(2) The Department shall not pay any UST project work costs that exceed the estimated cost by twenty percent (20%) or more, as shown on grant, loan guarantee or reduced interest rate confirmation letters, unless the applicant files a modified financial assistance application, the cost appears reasonable based upon generally accepted construction and corrective action cleanup practices and funds are available from the USTCCA Fund. The filing date of a complete modified application will be used to determine funding priority in accordance with OAR 340-172-072.

FINANCIAL NEED RATIOS

The following definition of terms used to calculate financial need ratios are based upon Robert Morse Associates' 1991 publication "Annual Statement Studies" with clarification added by the Department.

$$\text{I. CURRENT RATIO} = \frac{\text{CURRENT ASSETS}}{\text{CURRENT LIABILITIES}}$$

CURRENT ASSETS means cash and equivalents, net trade receivables, inventory and all other current assets where:

* "cash and equivalents" means all cash, marketplace securities, and other near cash items but excluding sinking funds.

* "net trade receivables" means all accounts from trade, net of allowance for doubtful accounts.

* "inventory" means anything constituting inventory for the firm.

* "all other current" means any other current assets but does not include prepaid items.

CURRENT LIABILITIES means short term notes payable, current maturities of long term debt, trade payable, income taxes payable, letters of credit, and all other current where:

* "short term notes payable" means all short term note obligations, including bank and commercial paper but does not include trade notes payable.

* "current maturities of long term debt" means that portion of long term obligations which is due within the next fiscal year.

* "trade payable" means open accounts due to the trade.

* "income taxes payable" means income taxes including current portion of deferred taxes.

* "letters of credit" means letters of credit payable to others.

* "all other current" means any other current liabilities, including bank overdrafts and accrued expenses.

$$\text{II. DEBT TO EQUITY RATIO} = \frac{\text{TOTAL LIABILITIES}}{\text{TOTAL EQUITY}}$$

TOTAL LIABILITIES means current liabilities plus long term debt, deferred taxes and all other non-current debt where:

* "current liabilities", as defined above.

* "long term debt" means all senior debt, including bonds, debentures, bank debt, mortgages, deferred portions of long term debt, and capital lease obligations.

* "all other non-current" means any other non-current liabilities, including subordinated debt, and liability reserves.

TOTAL EQUITY means the difference between total liabilities and total assets, including minority interests, where:

* "total liabilities", as defined above.

* "total assets" means current assets plus net fixed assets, net intangibles and all other non-current assets where:

  * "current assets", as defined above.

  * "net fixed assets" means all property, plant, leasehold improvements and equipment, net or accumulated depreciation or depletion.

  * "net intangibles" means intangible assets, including goodwill, trademarks, patents, catalogs, brands, copyrights, formulas, franchises, and mailing lists, net of accumulated amortization.

  * "all other current" means prepaid items and any other non-current assets.

$$\text{III. DEBT SERVICE COVERAGE RATIO} = \frac{\text{NET PROFIT + NON-CASH}}{\text{CURRENT PORTION OF LONG TERM DEBT}}$$

Note: NET PROFIT excludes non-reoccurring gains and losses from special circumstances.

NET PROFIT means profit from operations after taxes.

NON-CASH means depreciation, depletion and amortization expenses.

CURRENT PORTION OF LONG TERM DEBT, as defined above.

LETTER OF INTENT

Underground Storage Tank Financial Assistance Program
Oregon Department of Environmental Quality

I am the (CHECK ONE) tank owner [ ], permittee [ ] or property owner [ ] of an underground storage tank facility that holds or that previously held an accumulation of motor fuel for resale, described below. By filing this letter of Intent I intend to insure that the facility described below remains eligible for financial assistance from the Department of Environmental Quality.

DEQ Facility Number: _____

Facility Name: _____

Facility Address: _____

_____

County: _____

To remain eligible for UST financial assistance I understand that a Consent Agreement must be filed by October 1, 1992 and an application for financial assistance must be filed by October 1, 1994. The Consent Agreement will require the USTs containing motor fuel for resale to be closed by December 31, 1994 unless work to upgrade the USTs to new tank standards is started by March 1, 1995. Additionally, the Consent Agreement will require proof, within 60 days after completion of the UST upgrade, through insurance or other means, that the facility meets UST financial responsibility requirements. An application for financial assistance and the Consent Agreement will require signatures of the property owner, tank owner and the permittee.

I understand that signing this Letter of Intent does not require me to apply for financial assistance. (Tank owner, permittee or property owner must sign the Letter of Intent. **Only one signature is required.**)

(Signature): _____ Date: _____

Name (Print) : _____ Phone: _____

Notes:
1. A separate Letter of Intent must be filed for each UST facility at which UST project work will occur.
2. For facilities where tanks are permanently decommissioned before April 1, 1992, a former property owner, tank owner or permittee must sign the Letter of Intent.

TO QUALIFY FOR UST FINANCIAL ASSISTANCE UNDER CHAPTER 863, OREGON LAW, 1991 THIS LETTER OF INTENT MUST BE HAND DELIVERED NO LATER THAN 5:00 PM ON APRIL 1, 1992 OR POSTMARKED NOT LATER THAN APRIL 1, 1992, IF MAILED.

CONSENT AGREEMENT

Underground Storage Tank Financial Assistance Program
Oregon Department of Environmental Quality

By seeking financial assistance for UST project work I agree to comply with the following requirements or permanently close, on or before December 31, 1994, the underground storage tanks that hold or previously held motor fuel for resale at this facility.

1. I will submit a financial assistance application by the estimated date shown below, but in no case later than October **1**~~[31]~~, 1994.

2. I will secure financial assistance confirmation letters pursuant to OAR Chapter 340, Divisions 174, 175, 176, and 178 for UST project work by December 31, 1994.

3. I will start UST project work by the estimated date shown below but in no case later than March 1, 1995 for all USTs holding or that previously held motor fuel for resale at the facility.

4. UST project work on all USTs holding or that previously held motor fuel for sale shall meet the installation requirements for new USTs or requirements for upgrading USTs to new UST standards in OAR Chapter 340, Division 150. The Department intends to provide financial assistance only to projects that will come into full compliance.

5. Perform leak detection by UST inventory control in accordance with OAR Chapter 340, Division 150 except that the requirement for annual tank tightness testing is waived by this Consent Agreement until the UST project work is complete.

6. The financial responsibility compliance dates in OAR Chapter 340, Division 150 are waived by this Consent Agreement until 60 days after the UST project work is complete.

7. Report all suspected releases to the Department of Environmental Quality **within** ~~[with]~~ 24 hours and investigate all suspected releases.

8. Report all confirmed releases to the Department of Environmental Quality **within** ~~[with]~~ 24 hours.

9. Take appropriate corrective action in accordance OAR Chapter 340, Divisions 122 and 150 in the event of an imminent hazard involving petroleum contamination or threat of petroleum contamination to a ground water drinking water supply or where a spill or release of petroleum is likely to cause a fire or explosion that threatens public life and safety or threatens a critical habitat or an endangered species.

Should I at anytime not pursue financial assistance, and assuming I have not received any financial assistance under Chapter 863, Oregon Laws, 1991, I can continue to operate my USTs as long as I am in compliance with all applicable requirements of OAR Chapter 340, Division 150, including all applicable financial responsibility requirements at the time of my decision. I will also notify the Department of Environmental Quality within 30 days of my decision not to pursue financial assistance. I further acknowledge that if I do not make a good faith effort to undertake the UST project work identified herein I may be subject to Department enforcement action.

DEQ Facility Number: _____

Facility Name: _____

Facility Address: _____

_____

PROBABLE UST PROJECT WORK:

Estimated Financial Assistance Application Date: _____

Estimated UST Project Work Construction Start Date: _____

Final number of motor fuel tanks: _____

	(Yes/No)	~~[(No. of Tanks)]~~
Install Corrosion Protection:	_____	~~[Upgrade tank:]~~
Install Leak Detection:	_____	~~[Replace tank:]~~
Install Spill & Overfill Protection:	_____	~~[Cleanup soil:]~~
Soil Cleanup:	_____	~~[Cleanup groundwater:]~~
Groundwater Cleanup (If Known):	_____	~~[Stage I Vapor Recovery:]~~
Stage I Vapor Recovery:	_____	
Stage II Vapor Recovery:	_____	
Stage II Hoses & Nozzles:	_____	

SIGNATURES: (All three signatures are required)

Tank Owner (Print) : _____

(Signature): _____ Date: _____

Permittee (Print): _____

(Signature): _____ Date: _____

Property Owner (Print): _____

(Signature): _____ Date: _____

Name: _____ **Phone:** _____

Contact Person: _____ **Phone:** _____

Notes: 1. A Consent Agreement must be signed for each UST facility at which UST project work will occur.

2. **TO QUALIFY FOR UST FINANCIAL ASSISTANCE UNDER CHAPTER 863, OREGON LAW, 1991, THIS CONSENT AGREEMENT MUST BE HAND DELIVERED TO THE DEPARTMENT NO LATER THAN 5:00 PM, OCTOBER 1, 1992 OR POSTMARKED NO LATER THAN OCTOBER 1, 1992, IF MAILED.**

Attachment B
Agenda Item F
6-1-92 EQC Meeting

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 174 - DEPARTMENT OF ENVIRONMENTAL QUALITY

UNDERGROUND STORAGE TANK INSURANCE COPAYMENT PROGRAM

340-174-005 AUTHORITY, PURPOSE, AND SCOPE

(1) These rules are promulgated in accordance with and under the authority of ORS 466.705 to 466.835 as amended by Chapter 863, Oregon Laws, 1991 (Senate Bill 1215). These rules are in addition to OAR Chapter 340, Division 172.

(2) The purpose of these rules is to:

(a) provide for the regulation of persons who receive assistance for copayment of insurance to meet underground storage tank (UST) financial responsibility requirements at facilities with UST project work; and

(b) regulate the procedures for providing copayment to insurers for insurance to meet the underground storage tank financial responsibility requirements at facilities with UST project work .

(3) These rules establish requirements, standards or procedures for:

(a) qualifying and applying for copayment assistance to meet the UST financial responsibility requirements;

(b) copayment to insurer;

(c) financial responsibility, and

(d) administration and enforcement of these rules by the Department.

340-174-010 DEFINITIONS

The definitions in OAR 340-172-010 and the following definitions apply to these rules.

(1) "Insurer" means insurance agent, producing agent or company providing underground storage tank insurance meeting state and federal underground storage tank financial responsibility requirements.

(2) "Premium" means cost of insurance coverage including insurance taxes, fees and surplus line fees.

(3) "Insurer's written quote" means a quote for UST insurance coverage on a letterhead of a state admitted insurance company, registered risk

retention group, or a surplus lines agent licensed to do business in Oregon.

340-174-020 INSURANCE COPAYMENT BENEFITS

(1) Any person eligible for Tier 2, Tier 3, or Tier 4 UST financial assistance under OAR Chapter 340, Division 172 will qualify for UST insurance copayment assistance upon receipt of an UST insurance copayment certificate.

(2) In addition to the requirements of subsection (1) of this section, where UST project work was started after December 22, 1988 and completed before December 31, 1991, a person qualifying for:

(a) Tier 2 is eligible for an annual 50% insurance copayment, not to exceed $2,000 per year between October 1, 1991, and December 31 1993;

(b) Tier 3 is eligible for an annual 75% insurance copayment, not to exceed $3,000 per year between October 1, 1991, and December 31 1994;

(c) Tier 4 is eligible for an annual 90% insurance copayment, not to exceed $3,600 per year between October 1, 1991, and December 31 1994;

(3) In addition to the requirements of subsection (1) of this section, where UST project work was completed in the calendar year 1992, a person qualifying for:

(a) Tier 2 is eligible for an annual 40% insurance copayment, not to exceed $1,600 per year between January 1, 1992 and December 31 1993;

(b) Tier 3 is eligible for an annual 65% insurance copayment, not to exceed $2,600 per year between January 1, 1992 and December 31 1994;

(c) Tier 4 is eligible for an annual 85% insurance copayment, not to exceed $3,400 per year between January 1, 1992 and December 31 1994;

(4) In addition to the requirements of subsection (1) of this section where UST project work was completed in the calendar year 1993, a person qualifying for:

(a) Tier 2 is eligible for an annual 30% insurance copayment, not to exceed $1,200 per year between January 1, 1993 and December 31 1993;

(b) Tier 3 is eligible for an annual 55% insurance copayment, not to

exceed $2,200 per year between January 1, 1993 and December 31 1994;

(c) Tier 4 is eligible for an annual 80% insurance copayment, not to exceed $3,200 per year between January 1, 1993 and December 31 1994;

(5) In addition to the requirements of subsection (1) of this section where UST project work was completed in the calendar year 1994, a person qualifying for:

(a) Tier 3 is eligible for an annual 45% insurance copayment, not to exceed **$1,800** ~~[$2,200]~~ per year between January 1, 1994 and December 31 1994;

(b) Tier 4 is eligible for an annual 75% insurance copayment, not to exceed $3,000 per year between January 1, 1994 and December 31 1994;

(6) In addition to the requirements of subsection (1) of this section where UST project work was completed between December 22, 1988 and December 31, 1994, a person qualifying for Tier 4 UST financial assistance is eligible for an annual 50% insurance copayment, not to exceed $2,000 per year between January 1, 1995 and December 31, 1995;

(7) In addition to the requirements of subsection (1) of this section where UST project work was completed between December 22, 1988 and December 31, 1994, a person qualifying for Tier 4 UST financial assistance is eligible for an annual 25% insurance copayment, not to exceed $1,000 per year between January 1, 1996 and December 31, 1996;

340-174-030 GENERAL PROVISIONS, INSURANCE COPAYMENT

(1) A person qualifying under OAR Chapter 340, Division 172 and these rules may receive assistance in buying insurance that meets the UST financial responsibility requirements at UST facilities holding an accumulation of motor fuel for resale.

(2) An insurer must have filed information with the Oregon Department of Insurance and Finance in accordance with ORS 466.705 through 466.835 as amended by Chapter 863, Oregon Laws, 1991 (Senate Bill 1215).

(3) Only one insurance copayment certificate may be issued to each facility location. The insurance copayment shall cover all USTs at a facility location.

(4) An applicant may qualify for insurance copayment benefits at more than one UST facility location.

(5) Copayment for insurance will be made by a warrant (check) issued to both the applicant and the insurer for each policy year of eligibility.

(6) Copayment of insurance shall not be accepted by the insurer until the applicant pays the remaining portion of the insurance premium so that in combination with the copayment it provides 100% binding of UST financial responsibility insurance coverage.

340-174-040 APPLICATION FOR UST INSURANCE COPAYMENT CERTIFICATE

Any person wishing to apply for insurance copayment assistance under these rules shall submit a written application in accordance with OAR Chapter 340, Division 172.

340-174-050 ADDITIONAL INFORMATION REQUIRED ON THE UST FINANCIAL ASSISTANCE APPLICATION

In addition to the requirements of OAR 340-172-040, the UST financial assistance application shall include a copy of the insurer's written quote agreeing to provide UST financial responsibility coverage for the UST project described on the application. The insurer's written quote shall include;

(1) name and address of the insurance company or surplus lines agent; and

(2) name, address and telephone number of the Oregon representative of the insurer.

(3) the name, signature, address, and telephone number of the Oregon licensed insurance agent;

(4) conditions of insurance coverage; and

(5) estimated cost of annual coverage for the facility.

340-174-055 INSURANCE COPAYMENT CERTIFICATE OF ELIGIBILITY

(1) The Department shall issue an insurance copayment certificate to an applicant who has filed a complete application and meets the requirements of OAR Chapter 340, Division 172 and these rules.

(2) The copayment benefits will start on the latter of:

(a]) the date the project is certified complete by the Department; or

(b) the date the insurance is in effect.

(3) The applicant may not assign any right, title, and interest in the insurance copayment certificate to any person other than a subsequent property owner, tank owner or permittee of the underground storage tank facility.

(4) Insurance copayment certificates shall be valid for one year from the date of issue. A grant certificate may be renewed subject to availability of funds from the USTCCA fund.

(5) The applicant and the insurer are subject to the conditions on the insurance copayment certificate.

340-174-060 REQUIREMENT OF FINANCIAL RESPONSIBILITY

(1) The applicant shall provide proof of financial responsibility for cleanup of releases from the underground storage tank and any third party damages resulting from releases from the underground storage tank as required in OAR Chapter 340, Division 150 and federal regulations FR 40 CFR 280 and OAR 340-174-065.

(2) The proof of financial responsibility shall be documented by an insurance coverage policy provided by an insurer containing the information listed in Section 340-174-070(1)(e)(A) through (F).

340-174-065 UST INSURANCE REQUIREMENTS LETTER

An UST insurance requirements letter will be issued to the applicant upon completion of UST project work performed in accordance with OAR Chapter 340, Divisions 122 and 150 or upon receiving financial assistance for UST project work completed prior to October 1, 1991. This letter will require the applicant to obtain financial responsibility coverage in accordance with these rules and will allow the applicant to receive insurance copayment benefits.

340-174-070 INSURANCE COPAYMENT

(1) In accordance with the insurance copayment certificate and these rules, the Department will pay a portion of the insurance cost to the UST insurer where:

(a) insurance copayment confirmation and insurance required letters have been issued to the applicant;

(b) all USTs at a facility meet the requirements of OAR Chapter 340, Divisions 122 and 150 or the applicant is in compliance with a compliance schedule to complete a groundwater corrective action plan;

(c) the Department received a copy of the insurance invoice;

(d) the billing period is for insurance coverage during the policy year; and

(e) insurance coverage is certified by the insurer. The certification shall include;

(A) the insured's name, business name and address;

(B) the UST facilities covered by the insurance, complete with name and address of each facility;

(C) policy year;

(D) limits of coverage;

(E) total premium and premium for each facility; and

(F) cancellation and reinstatement terms.

(2) The Department will copay the insurer within 30 days after receiving a completed invoice for the initial premium, the annual premium or an additional premium. Incomplete invoices will be returned to the insurer for completion.

340-174-080 INSURANCE CANCELLATION AND TERMINATION

(1) The insurance copayment benefits will terminate:

(a) upon termination of insurance coverage; or

(b) when the applicant sells or otherwise transfers interest in the facility.

(2) An insurer receiving copayment shall notify the Department within 15 days after sending a notice of intent to cancel to the insured. This notice shall describe the reason for the intent to cancel.

(3) An insurer receiving copayment under these rules shall notify the Department within 30 days after insurance coverage has been terminated or cancelled. The notice written shall include:

(a) a list of the UST facilities no longer insured;

(b) the reason for cancellation or termination;

(c) the effective date of cancellation or termination; and

(d) the return of premium amount.

(4) Within 30 days after receiving a returned insurance premium, the applicant must return the copayment portion to the Department.

(5) When returning premiums copayed under these rules, the insurer shall pay the returned premium in the form of a check with payment to both the insured and the Department.

(6) The copayment of insurance is subject to monies being available from the Underground Storage Tank Insurance Fund.

340-174-090 APPEAL PROCEDURES

An applicant may appeal determinations by the Department under these rules, in accordance with OAR 340-172-110, by sending a written request for a formal contested case hearing within twenty (20) days after the Department awards or denies financial assistance.

Attachment C
Agenda Item F
6-1-92 EQC Meeting

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 175 - DEPARTMENT OF ENVIRONMENTAL QUALITY

UNDERGROUND STORAGE TANK GRANT PROGRAM

340-175-005 AUTHORITY, PURPOSE, AND SCOPE

(1) These rules are promulgated in accordance with and under the authority of ORS 466.705 to 466.835 as amended by Chapter 863, Oregon Laws, 1991 (Senate Bill 1215). These rules are in addition to OAR Chapter 340, Division 172.

(2) The purpose and scope of OAR 340-175-005 to -110 is to provide for the regulation of persons who apply for and receive a grant for UST project work and persons who disburse grant funds.

(3) These rules establish requirements, standards or procedures for:

(a) applying and qualifying for a grant: and

(b) administration and enforcement of these rules by the Department.

340-175-010 DEFINITIONS

The definitions in OAR 340-172-010 and the following definition applies to these rules.

"Disbursing agent" means lender or other person designated by the Department to disburse grant funds.

340-175-020 GRANT BENEFITS

(1) A pollution prevention grant will fund up to 50% not to exceed $50,000 of UST project work.

(2) An essential services grant will fund up to 85% not to exceed $85,000 of UST project work.

340-175-030 GENERAL PROVISIONS, GRANTS

(1) A person qualifying for Tier 3 UST financial assistance under OAR Chapter 340, Division 172 and these rules may qualify for a pollution prevention grant to assist in payment for UST project work.

(2) A person qualifying for Tier 4 UST financial assistance under OAR Chapter 340, Division 172 and these rules may qualify for an essential services grant to assist in payment for UST project work.

(3) Only one grant may be issued to each facility location. The grant shall cover all tanks at a facility location.

(4) An applicant may qualify for grant benefits at more than one UST facility location.

340-175-040 APPLICATION FOR GRANT

Any person wishing to apply for a grant under these rules shall submit a written application in accordance with OAR Chapter 340, Division 172.

340-175-050 ADDITIONAL INFORMATION REQUIRED ON THE FINANCIAL ASSISTANCE APPLICATION.

In addition to the requirements of OAR 340-172-040, the financial assistance application shall include:

(1) where the UST project work is partially or fully completed:

(a) a description of the completed UST project work including the date the UST was placed into service;

(b) cost of completed UST project work; and

(c) a description of all UST project work still to be done to meet new UST standards, including estimated cost and schedule of work; and

(2) a signed agreement allowing the Department to file a property lien upon payment of an essential services grant.

340-175-055 DOCUMENTS REQUIRED TO RECEIVE AN ESSENTIAL SERVICES GRANT

(1) Where an applicant receives an essential services grant under OAR 340-175-030(2) the applicant must sign a property lien agreement, described by subsections (2) and (3) of this section.

(2) A property lien shall be filed by the Department before payment of the essential services grant. The Department shall withdraw the property lien within five (5) years and ten (10) days after the lien is filed or when as the lien is satisfied.

(3) The signed Property Lien Agreement shall require the applicant to reimburse the underground storage tank essential services grant in full, to the Department, if the property or the business reselling motor fuel is sold within five (5) years after the last payment of the essential services grant.

340-175-060 GRANT CERTIFICATE

(1) The Department shall issue a grant certificate to an applicant who has filed a complete application and meets the requirements of OAR Chapter 340, Division 172 and these rules.

(2) Only one grant certificate shall be issued for each facility location. All tanks at a facility location shall be covered by the grant certificate.

(3) An applicant may receive a grant certificate for more than one facility location.

(4) The grant certificate obligates the Department to make payment to a applicant or in behalf of an applicant to a lender or a disbursing agent for UST project work, in accordance with these rules.

(5) The applicant may not assign any right, title, and interest in the grant certificate to any person other than a subsequent property owner, tank owner or permittee of the underground storage tank facility. A lender or a disbursing agent may not assign any right, title, and interest in the grant certificate to any other person without express approval by the Department.

(6) The grant certificate shall be valid for one year from the date of issue. A grant certificate may be renewed subject to availability of funds from the USTCCA fund.

340-175-065 GRANT CONFIRMATION

The Department shall issue a grant confirmation letter to the applicant where a grant certificate has been issued and the UST project work remains eligible for financial assistance. The grant confirmation letter shall include but be limited the following grant conditions.

(1) Grant amount based upon the estimated UST project work cost in the financial assistance application.

(2) Grant payment, including payment schedule.

(3) person or persons receiving grant.

(4) procedures for requesting grant payment.

(5) procedures for return of overpayment to the Department.

340-175-070 GRANT PAYMENT

(1) Subject to the conditions listed on the grant confirmation letter, these rules and the availability of funds from the USTCCA fund, payment of funds will be made to:

(a) the applicant directly where the UST project work is complete, meets the requirements of OAR Chapter 340, Divisions 122 and 150 and was started after December 22, 1988 and completed before October 1, 1991 and provides proof of expenditures for UST project work. Proof may be in the form of copies of paid invoices, cancelled checks, or certification of eligible UST project costs by a licensed public accountant;

(b) the applicant or indirectly to the applicant through a lender or other authorized disbursing agent where the UST project work is started after December 22, 1988 and the applicant receives a grant, loan guarantee, and/or a reduced interest rate confirmation letter under OAR Chapter 340, Division 175, Division 176 or Division 178.

(2) A grant shall be disbursed in accordance with instructions provided by the Department, as follows:

(a) Up to $15,000 of the grant may be used for UST project work to discover and correct petroleum contamination including tank removal, site assessment, corrective action, and other UST project work.

(b) Up to ninety percent (90%) of the grant may be disbursed for UST project work after the applicant provides to the Department proof that at least $10,000 of the funds disbursed under subsection (a) of this section have been spent to remove existing tanks, conduct site assessment, perform corrective action and complete other UST project work. Proof may be in the form of copies of paid invoices, cancelled checks, or certification of UST project costs by a licensed public accountant, lender or disbursing agent.

(c) Final grant payment will be made upon submission of final project costs supported by copies of paid invoices, cancelled checks or certification of final project cost and calculation of the final grant amount by a licensed public accountant, lender or disbursing agent.

Note: Eligible UST project costs are described at OAR 340-172-020(5) and (6)(a).

(3) The Department may require use of a disbursing agent to pay UST project costs, including but not limited to disbursing from an escrow account or other similar disbursement means.

(4) The Department may pay grant funds directly to persons providing UST project work.

(5) A property lien shall be filed in accordance with OAR 340-175-055 where the applicant receives an essential services grant.

(6) Grant funds not used for costs of UST project work in accordance with the grant confirmation letter shall be returned to the Department within 60 days after voluntary or involuntary termination of the UST project work.

(7) The payment of the grant is subject to monies being allocated and being available from the Underground Storage Tank Compliance and Corrective Action Fund, per allocation system described in OAR 340-172-072(2).

340-175-080 CERTIFICATION OF FINANCIAL RESPONSIBILITY

The applicant receiving a grant under these rules shall comply with the financial responsibility requirements of OAR Chapter 340, Division 174.

340-175-110 APPEAL PROCEDURES

An applicant may appeal determinations by the Department under these rules, in accordance with OAR 340-172-110, by sending a written request for a formal contested case hearing within twenty (20) days after the Department awards or denies financial assistance.

Attachment D
Agenda Item F
6-1-92 EQC Meeting

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 176 - DEPARTMENT OF ENVIRONMENTAL QUALITY

UNDERGROUND STORAGE TANK LOAN GUARANTEE

340-176-005 AUTHORITY, PURPOSE, AND SCOPE

(1) These rules are promulgated in accordance with and under the authority of ORS 466.705 through 466.835 as amended by Chapter 863, Oregon Laws, 1991 (Senate Bill 1215). These rules are in addition to OAR Chapter 340, Division 172.

(2) The purpose of these rules is to:

(a) provide for the regulation of persons who receive loan guarantees for UST project work at UST facilities holding or that previously held an accumulation of motor fuel for resale; and

(b) provide for the regulation of commercial lending institutions who issue guaranteed UST loans.

(3) These rules establish requirements and standards for:

(a) loan guarantees for UST project work.

(b) applying and qualifying for a guaranteed loan through a commercial lending institution,

(c) loan default, and

(d) Administration and enforcement of these rules by the Department.

340-176-010 DEFINITIONS

The definitions in OAR 340-172-010 and the following definition applies to these rules.

"Collection Expenses" means out of pocket expenses, attorney fees, administrative expenses, filing fees, recording fees, and other expenses related to collection of unpaid loan monies.

340-176-030 GENERAL PROVISIONS, GUARANTEED UNDERGROUND STORAGE TANK FACILITY LOAN

(1) The guaranteed loan must be issued by a commercial lending institution as defined in OAR Chapter 340, Division 172.

(2) Grant funds, described in OAR Chapter 340 Division 175, may not be used to pay either the principal or interest portion of the guaranteed loan.

340-176-040 APPLICATION FOR UNDERGROUND STORAGE TANK LOAN GUARANTEE

Any person wishing to apply for a loan guarantee under these rules shall submit a written application in accordance with OAR Chapter 340, Division 172.

340-176-060 LOAN GUARANTEE CERTIFICATE

(1) In accordance with this part, the Department shall issue a loan guarantee certificate to an applicant who has filed a complete application and meets the requirements of OAR Chapter 340, Division 172 and this Division.

(2) Only one loan guarantee certificate shall be issued for each facility location. All tanks at a facility location shall be covered by the loan guarantee certificate.

(3) An applicant may receive a loan guarantee certificate for more than one facility location.

(4) The loan applicant may not assign any right, title, and interest in the loan guarantee certificate to any person other than a subsequent property owner, tank owner or permittee of the underground storage tank facility.

(5) Loan guarantee certificates shall be valid for one year from the date of issue. A certificate may be renewed subject to availability of funds from the USTCCA fund.

340-176-070 LOAN GUARANTEE

(1) The Department shall issue a loan guarantee confirmation letter of eighty percent (80%) of the loan principal, not to exceed $80,000, to a commercial lending institution for a loan to provide UST project work where:

(a) a loan guarantee certificate has been issued to the loan applicant;

(b) the loan guarantee does not provide a guarantee for work other than UST project work;

(c) the interest rate is fixed and the loan is amortized with equal payments over the term of the loan;

Note: To assure that funds are available from the UST Compliance and Corrective Action Fund (USTCCA Fund) to pay loan guarantees during the life of the loan, it is necessary for most loans to have equal payments over the term of the loan. The Department, however, recognizes that the lending policies may differ between commercial lending institutions and may differ between individual loans, particularly during construction. The Department expects that equal loan payments will start after construction is complete. The Department is willing to consider other loan arrangements and other loan repayment schedules subsequent to the initial loan, such as multiple loans and loan refinancing where USTCCAF monies are available to pay loan guarantees, upon default, in full. Each new loan arrangement may be approved by the Department on a case by case basis. The final maturity date of the loan may not exceed 20 years from the initial note date.

(d) the maturity date of the loan does not exceed 20 years from the initial loan closing date;

(e) the commercial lending institution has approved the loan, subject to receiving the loan guarantee confirmation letter from the Department; and

(f) the loan applicant or the commercial lending institution has provided the terms of the loan to the Department. The terms of the loan shall include but are not limited to:

(A) amount of loan principal;

(B) amount and period of payment;

(C) fixed interest rate; and

(D) the term of the loan from the initial note date.

(2) The loan guarantee shall terminate on the first to occur of:

(a) thirty (30) days after loan maturity date, including all extensions or renewals by the lender or extensions caused by the Department;

Note: For example, if the initial note has a five year maturity date it's maturity date may be extended beyond five years, but not past 20 years. The loan guarantee will terminate 30 days after the new maturity date. All of the above rules apply to any extension of the maturity date.

(b) upon payment of the loan guarantee to the commercial lending institution; or

(c) when the loan guarantee provided by the Department is replaced by a loan guarantee provided by the U.S. Small Business Administration (SBA).

(3) The commercial lending institution shall notify the Department promptly when a loan guaranteed by the Department is paid in full or if the guarantee is replaced with a S.B.A. loan guarantee for the same purpose.

Note: Because SBA loans provide a more complete guarantee (SBA guarantees can include costs outside of UST project work and a 90% guarantee, the Department encourages transfer of loan guarantees to the SBA. It is expected that the SBA will agree to provide their loan guarantee (takeout the loan) after corrective action and UST construction work is complete, approximately six months after the Department issues the original loan guarantee.

(4) The payment of the loan guarantee is subject to monies being allocated and being available from the Underground Storage Tank Compliance and Corrective Action Fund throughout the term of the loan.

340-176-080 NOTICE OF DEFAULT ON A GUARANTEED LOAN

(1) Any commercial leading institution wishing to obtain payment from the Department under the Department's loan guarantee shall provide the following:

(a) Written notice from the commercial lending institution in the form of a demand for payment of the loan guarantee, stating:

(A) the guaranteed loan to the borrower is in default,

(B) the commercial lending institution has made a good faith effort to work with the borrower, using the institution's established procedures, to bring the loan back into good standing,

(C) demand for payment in full has been made to the borrower by the commercial lending institution, and

(D) the borrower has not paid the loan in full.

(b) The demand for payment of the loan guarantee shall include:

(A) a copy of the demand letter to the borrower from the commercial lending institution, and

(B) a statement showing the principal balance outstanding on the date the demand letter was sent to the borrower.

(2) Subject to the availability of funds from the Underground Storage Tank Compliance and Corrective Action Fund, the Department, within 30 days after receipt of the default notice,

(a) shall institute procedures to pay to the commercial lending institution the lesser of:

(A) the amount guaranteed by the Department, or

(B) the principal balance outstanding on the date the commercial lending institution sent the default notice to the Department, or

(b) where agreed upon by the commercial lending institution and where the borrower is unable to pay, the Department may make partial principal payments of the loan guarantee equal to the monthly loan principal payment for up to twelve monthly loan payments. If the loan is still in default after the Department has made twelve monthly payments, the Department will pay the loan guarantee, pursuant to subsection (2)(a) of this section.

(3) If the commercial lending institution receives payment of the loan, in whole or in part, after the date of the default notice, the commercial lending institution shall promptly notify the Department in writing of such payment.

(4) Once the Department has paid the loan guarantee certificate in whole or in part, the commercial lending institution shall reimburse the Department for any collection of the principal portion on the unpaid loan at the guarantee percentage shown on the loan guarantee certificate. The reimbursement shall be in legal tender. The expenses of collection including interest accrued after default may be deducted from the reimbursement paid to the Department.

(5) The Department understands that collection may consist of cash, securities, notes, personal property, real property or any other form of payment accepted by the commercial lending institution. The reimbursement to the Department shall be after the collection has been converted to legal tender. Payment to the Department by the commercial lending institution shall be made within thirty days after any collection is converted into legal tender.

340-176-090 APPEAL PROCEDURES

An applicant may appeal determinations by the Department under these rules, in accordance with OAR 340-172-110, by sending a written request for a formal contested case hearing within twenty (20) days after the Department awards or denies financial assistance.

Attachment E
Agenda Item F
6-1-92 EQC Meeting

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 178 - DEPARTMENT OF ENVIRONMENTAL QUALITY

UNDERGROUND STORAGE TANK REDUCED INTEREST RATE LOANS

340-178-005 AUTHORITY, PURPOSE, AND SCOPE

(1) These rules are promulgated in accordance with and under the authority of ORS 466.705 through 466.835 as amended by Chapter 863, Oregon Laws, 1991 (Senate Bill 1215). These rules are in addition to OAR Chapter 340, Division 172.

(2) The purpose of these rules is to:

(a) provide for the regulation of persons who receive reduced interest rate loans for UST project work;

(b) provide assistance to owners of underground storage tanks regulated by ORS 466.705 to 466.835 and federal regulations 40 CFR 280; and

(c) provide for the regulation of commercial lending institutions who issue reduced interest rate loans for UST project work.

(3) These rules establish requirements and standards for:

(a) reduced interest rates on loans for UST project work.

(b) applying and qualifying for interest rate payment to commercial lending institutions,

(c) administration and enforcement of these rules by the Department.

340-178-010 DEFINITIONS

The definitions in OAR 340-172-010 apply to these rules.

340-178-020 REDUCED INTEREST RATE BENEFITS

(1) Any person qualifying for Tier 1, Tier 2, Tier 3, or Tier 4 UST financial assistance under OAR Chapter 340, Division 172 will qualify for a reduced interest rate where the person receives a loan for UST project work from a commercial lending institution.

(2) In addition to the requirements of subsection (1) of this section;

(a) a person qualifying for Tier 1 financial assistance is eligible to receive a reduced interest rate of 7.5% on a loan for the first $100,000 of eligible UST project costs;

(b) a person qualifying for Tier 2 financial assistance is eligible to receive a reduced interest rate of 5.0% on a loan for the first $100,000 of eligible UST project costs;

(c) a person qualifying for Tier 3 financial assistance is eligible to receive a reduced interest rate of 3.0% on a loan for the first $100,000 of eligible UST project costs; and

(d) a person qualifying for Tier 4 financial assistance is eligible to receive a reduced interest rate of 1.5% on a loan for the first $100,000 of eligible UST project costs.

340-178-030 GENERAL PROVISIONS, INTEREST RATE PAYMENT

(1) Commercial lending institutions making loans for UST project work may qualify to receive an interest rate payment from the USTCCA Fund.

(2) The interest rate payment shall be **paid to the lender quarterly in arrears, and shall equal the difference in finance charges between the borrower's rate and the lender's rate. The borrower's rate shall equal the total finance charges charged to the borrower by the lender during a calendar quarter, including interest on the loan at the rate shown on the reduced interest rate certificate as the borrower's rate, and interest charged the borrower on any loan fee.** ~~[calculated in accordance with either subsection (a) or subsection (b) or this section, as selected by the lender at the time of making the initial loan.]~~ The **commercial lending institution shall select the method of calculation the lender's rate from subsection (a) or (b) of this section, and shall** ~~[lender shall select one of the calculation methods and]~~ notify the Department of the selection prior issuing the loan. Once selected, the lender may not change the method of **calculating the lender's rate. The lender's rate, as calculated in subsections (a) and (b) or this section, shall be deemed to equal the total finance charges which would have been charged to the borrower during the calendar quarter by the lender, including interest on the loan and any loan fee.** ~~[calculation on a particular loan including an extension or modification thereto.]~~

(a) **Fixed Rate Option. Under the fixed rate option, the lender's rate shall remain constant throughout the life of the loan. The lender's rate shall be an annual rate equal to the sum of the 10 year Treasury constant maturities interest rate for the week immediately preceding the date of the initial note, plus the following:** ~~[The interest rate payment may not exceed the difference between the amount of finance charge charged during the calendar quarter, including interest on the loan and interest on any loan fee financed at the annual rate shown on the reduced interest rate certificate as the borrowers rate, and the amount of~~

~~finance charge that would have been charged by the commercial lending institution during the calendar quarter, including any interest on the loan and interest on any loan fee financed at the annual rate charged for nonsubsidized loans, herein after called the lender's interest rate. For purposes of calculating the interest rate payment, the determination of the lenders interest rate shall be calculated using a fixed annual interest rate, equal to three percent (3%) above the prime rate published in the Wall Street Journal on the date of the initial note.]~~

A. three percent (3.0%) for loans with a term which does not exceed four years;

B. three and one quarter percent (3.25%) for loans with a term which is more than four years and does not exceed eight years;

C. three and three quarter percent (3.75%) for loans with a term which is more than eight years and does not exceed twelve years;

D. four and one half percent (4.5%) for loans with a term which is more than twelve years and does not exceed sixteen years;

E. five and one half percent (5.5%) for loans with a term which is more than sixteen years and does not exceed twenty years; or

F. six and three quarters percent (6.75%) for loans with a term of exactly twenty years.

~~[The difference in income between the lender's interest rate calculated in this manner and the annual rate shown on the reduced interest rate certificate shall be the payment due the commercial lending institution.]~~

(b) Adjusted Fixed Rate Option. Under the adjusted fixed rate option, the lender's interest rate shall adjust, as provided in this subsection. ~~[The interest rate will be adjusted as follows:]~~

(A) For a loan with a term which does not exceed 3 years, ~~[the first five years of the loan, the interest rate payment may not exceed the difference between the amount of finance charge charged during the calendar quarter, including interest on the loan and interest on any loan fee financed at the annual rate shown on the reduced interest rate certificate as the borrowers rate, and the amount of finance charge that would have been charged by the commercial lending institution during the calendar quarter, including any interest on the loan and interest on any loan fee financed at the annual rate charged for nonsubsidized loans, herein after called]~~ the lender's interest rate shall be equal to the 10 year Treasury constant maturities interest

rate for the week immediately preceding the initial date of the loan, plus [~~.--For purposes of calculating the interest rate payment, the determination of the lenders interest rate shall be calculated using a fixed annual interest rate equal to~~] three percent (3%) [~~above the prime rate published in the Wall Street Journal on the date of the initial note.--The difference in income between the lender's interest rate calculated in this manner and the annual rate shown on the reduced interest rate certificate shall be the payment due the commercial lending institution.~~]

(B) Where a loan has a term of more than 3[~~5~~] years and does not exceed 6 years, a new lender's interest rate [~~(the interest rate charged for nonsubsidized loans)~~] shall be calculated by adding three percent (3%) to the 10 year Treasury constant maturities interest [~~prime~~] rate for the week immediately preceding the start of the fourth year [~~published in the Wall Street Journal on the day nearest to 5 years after the initial date of the loan.--This newly calculated lender's interest rate shall be used for years 6 through 10~~] but in no case shall the lender's interest rate be more than 1[~~2~~] percentage point[~~s~~] above or below the lender's interest rate calculated in subsection (2)(b)(A) of this section.

(C) Where a loan has a term of more than 6[~~10~~] years and does not exceed 9 years, a new lender's interest rate shall be calculated by adding three percent (3%) to the 10 year Treasury constant maturities interest [~~prime~~] rate for the week immediately preceding the start of the seventh year [~~published in the Wall Street Journal on the day nearest to 10 years after the initial date of the loan.--This newly calculated lender's interest rate shall be used for years 11 through 15~~] but in no case shall the lender's interest rate be more than 1[~~2~~] percentage point[~~s~~] above or below the lender's interest rate calculated in subsection (2)(b)(B)[~~(A)~~] of this section.

(D) Where a loan has a term of more than 9[~~15~~] years and does not exceed 12 years, a new lender's interest rate shall be calculated by adding three percent (3%) to the 10 year Treasury constant maturities interest [~~prime~~] rate for the week immediately preceding the start of the tenth year [~~published in the Wall Street Journal on the day nearest to 15 years after the initial date of the loan.--This newly calculated lender's interest rate shall be used for years 16 through 20~~] but in no case shall the lender's interest rate be more than 1[~~2~~] percentage point[~~s~~] above or below the lender's interest rate calculated in subsection (2)(b)(C)[~~(A)~~] of this section.

(E) Where a loan has a term of more than 12 years and does not exceed 15 years, a new lender's interest rate shall be calculated by adding three percent (3%) to the 10 year

Treasury constant maturities interest rate for the week immediately preceding the start of the thirteenth year but in no case shall the lender's interest rate be more than 1 percentage point above or below the lender's interest rate calculated in subsection (2)(b)(D) of this section.

(F) Where a loan has a term of more than 15 years and does not exceed 18 years, a new lender's interest rate shall be calculated by adding three percent (3%) to the 10 year Treasury constant maturities interest rate for the week immediately preceding the start of the sixteenth year but in no case shall the lender's interest rate be more than 1 percentage point above or below the lender's interest rate calculated in subsection (2)(b)(E) of this section.

(G) Where a loan has a term of more than 18 years and does not exceed 20 years, a new lender's interest rate shall be calculated by adding three percent (3%) to the 10 year Treasury constant maturities interest rate for the week immediately preceding the start of the nineteenth year but in no case shall the lender's interest rate be more than 1 percentage point above or below the lender's interest rate calculated in subsection (2)(b)(F) of this section.

(c) The 10 year Treasury constant maturities interest rate means the rate of that name as indicated in Federal Reserve statistical release H.15. Federal Reserve statistical release H.15 is released each Monday and is available on the Bloomberg data system. The 10 year Treasury constant maturities interest rate for each week may be obtained from the Department.

(3) A commercial lending institution may be paid for interest if:

(a) the borrower pays the annual rate shown on the reduced interest rate certificate;

(b) the loan is amortized with equal payments over the term of the loan;

Note: To assure that funds are available from the UST Compliance and Corrective Action Fund (USTCCAF) to pay reduced interest rates during the life of the loan, it is necessary for most loans to have equal payments over the term of the loan. The Department, however, recognizes that the lending policies may differ between commercial lending institutions and may differ between individual loans, particularly during construction. The Department is willing to consider other loan arrangements and other loan repayment schedules subsequent to the initial loan, such as multiple loans and loan refinancing where the interest rate payment conserves the USTCCAF monies so that all qualified interest rate payments are paid in full. Each new loan arrangement may be approved by the Department on a case by case basis. The final maturity date of the loan may not exceed 20 years from the initial note date.

(c) the loan maturity date does not exceed 20 years from the initial closing date;

(d) the borrower has received a reduced interest rate confirmation letter; and

(e) the loan applicant or the commercial lending institution has provided the terms of the loan to the Department. The terms of the loan include but are not limited to:

(A) amount of loan;

(B) the interest rate calculated in subsection (2) of this section;

(C) reduced interest rate to the borrower; and,

(D) the term of the loan from the initial note date.

(4) Only one reduced interest rate certificate may be issued to each facility location. Individual tanks at a facility location with multiple tanks are not eligible for a separate interest rate certificate per tank.

(5) Interest rate payments are limited to loans for UST project work where the loan is provided by a commercial lending institution.

(6) An interest rate payment may be paid on loans provided by a commercial lending institution that are not guaranteed by the Department where the borrower has received a reduced interest rate certificate from the Department.

(7) The commercial lending institution shall bill the Department for the interest rate reimbursement each calendar quarter.

(8) An applicant may receive a reduced interest rate certificate at more than one facility location.

(9) An interest rate payment may not be made on grant funds, described in OAR Chapter 340 Division 175.

(10) The payment of the interest rate reimbursements is subject to monies being allocated and being available from the Underground Storage Tank Compliance and Corrective Action Fund.

340-178-040 APPLICATION FOR REDUCED INTEREST RATE CERTIFICATE

Any person wishing to obtain a Reduced Interest Rate Certificate for a loan for UST project work shall submit a written application in accordance with OAR Chapter 340, Division 172 and these rules.

340-178-050 REDUCED INTEREST RATE CERTIFICATE

(1) In accordance with this part, the Department shall issue a reduced interest rate certificate to an applicant who has filed a complete application and meets the requirements of OAR Chapter 340, Division 172 and this division.

(2) Funds collected and deposited into the Underground Storage Tank Compliance and Corrective Action Fund may be used to make reduced interest rate payments. The Department will pay to the lender all valid claims for interest rate payments to the commercial lending institutions against UST Reduced Interest Rate Confirmation letter. A lender can claim reduced interest rate payment on a calendar quarter basis.

(3) The applicant may not assign any right, title, and interest in the reduced interest rate certificate or confirmation letter to any person other than a subsequent property owner, tank owner or permittee of the underground storage tank facility.

(4) UST Reduced Interest Rate Certificates shall be valid for one year from the date of issue. A certificate may be renewed subject to availability of funds from the USTCCA fund.

340-178-060 INTEREST RATE PAYMENT CONFIRMATION

The Department shall issue a interest rate payment confirmation letter to a lender where the lender has provided a loan to provide UST project work where:

(1) a reduced interest rate certificate has been issued to the loan applicant;

(2) the borrower's interest rate and the lender's interest rate meet the requirements of these rules;

(3) the maturity date of the loan does not exceed 20 years from the initial loan closing date;

(4) the commercial lending institution has approved the loan, subject to receiving the loan guarantee confirmation letter from the Department; and

(5) the lender's interest rate has been provided to the Department.

340-178-070 NOTICE OF DEFAULT OR TERMINATION

Any commercial leading institution administering a reduced interest rate loan under this Division shall notify the Department in writing within thirty (30) days after loan default or termination.

340-178-080 APPEAL PROCEDURES

An applicant may appeal determinations by the Department under these rules, in accordance with OAR 340-172-110, by sending a written request for a formal contested case hearing within twenty (20) days after the Department issues a reduced interest rate certificate or denies a reduced interest rate application.

Attachment F
Agenda Item F
6-1-92 EQC Meeting

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 170 - DEPARTMENT OF ENVIRONMENTAL QUALITY

MODIFICATIONS TO UST REIMBURSEMENT GRANT PROGRAM RULES
ORS 466.705 through 466.835 and ORS 466.895

AUTHORITY, PURPOSE, AND SCOPE

340-170-005 (1) These rules are promulgated in accordance with and under the authority of ORS 466.705 through 466.835 and ORS 466.895 through 466.995 as amended by Chapter 1071, Oregon Laws, 1989 (House Bill 3080) and Chapter 863, Oregon Laws, 1991 (Senate Bill 1215).

(2) The purpose of these rules is to provide for the regulation of persons who receive reimbursement grants for UST tightness testing and soil assessment of underground storage tank facilities that contain motor fuel regulated by ORS 466.705 through 466.835 and ORS 466.895 through 466.995; and to provide assistance to owners of underground storage tanks in meeting Environmental Protection Agency requirements and obtaining financial responsibility coverage.

(3) These rules establish requirements and standards for:

(a) Reimbursement grant of up to 50 percent, not to exceed $3,000, for UST tightness testing and soil assessment,

(b) Procedures for applying and qualifying for a reimbursement grant,

(c) Administration and enforcement of these rules by the Department.

(4) Scope: OAR 340-170-010 through OAR 340-170-080 applies to persons who receive reimbursement grants for UST tightness testing and soil assessment.

GENERAL PROVISIONS, UNDERGROUND STORAGE TANK FACILITY REIMBURSEMENT GRANT

340-170-050 (1) The property owner, tank owner, or permittee of an UST facility may qualify to receive an UST tightness testing and soil assessment reimbursement grant at any facility location.

(2) A facility location may not receive more that one reimbursement grant.

(3) The reimbursement grant shall not exceed the lesser of fifty percent of the costs for UST tightness testing and soil assessment or $3,000 at any facility location.

(4) The reimbursement grant is limited to investigating underground storage tank systems located at a facility:

(a) where tanks contain motor fuel;

(b) are regulated by OAR Chapter 340, Division 150;

(c) where UST tightness testing is performed in accordance with OAR 340-160-005 through OAR 340-160-150;

(d) where UST tightness testing is performed in accordance with these rules;

(e) where soil assessment is performed in accordance with OAR Chapter 340 Division 122 and these rules;

(f) where soil assessment is performed under the direction or supervision of a registered professional engineer, registered geologist, or a certified professional soil scientist (a soil scientist with certification and inclusion in the American Registry of Certified Professionals in Agronomy, Crops, and Soils, Ltd.(ARCPACS)).

(g) where soil assessment and/or UST tightness testing is performed after September 1, 1989 and before **October 1, 1991** ~~[August 31, 1992]~~; and

(h) where regulated underground storage tanks have a valid UST permit.

Note: The Department will not approve a grant where tanks are being permanently decommissioned, removed or filled in place. The legislature intended for the grants to assist operating motor fuel facilities attempting to comply with Federal/State underground storage tank regulations.

APPLICATION, UNDERGROUND STORAGE TANK FACILITY REIMBURSEMENT GRANT

340-170-060 (1) Any person wishing to obtain a reimbursement grant from the Department shall submit a written application on a form provided by the Department. Applications must be submitted no later than **October 1, 1992** ~~[February 28, 1993]~~. All application forms must be completed in full, and accompanied by all required exhibits.

(2) Applications which are unsigned or which do not contain the required exhibits (clearly identified) will not be accepted by the Department and will be promptly returned to the applicant for completion. The application will not be considered complete until the requested information is received. The application will be considered to be withdrawn if the applicant fails to submit the requested information within 180 days of the request.

(3) Applications which are complete will be accepted by the Department.

(4) Within 30 days after the application is determined complete, the Department will approve the application if the UST tightness testing and soil assessment meets all Department requirements.

(5) In the event the Department is unable to process an application within 30 days after the application is considered complete by the Department, the applicant shall be deemed to have received approval of the application. In no case, however, is the Department obligated to reimburse more than 50 percent or $3,000, whichever is the lesser amount.

(6) If, upon review of an application, the Department determines that the reimbursement grant application does not meet the requirements of the statutes and rules, the Department shall notify the applicant in writing of this determination. Such notification shall constitute final action by the Department on the application.

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 180 - DEPARTMENT OF ENVIRONMENTAL QUALITY

MODIFICATIONS TO UST LOAN GUARANTEE AND INTEREST RATE SUBSIDY PROGRAM RULES
ORS 466.705 through 466.835 and ORS 466.895

340-180-005 AUTHORITY, PURPOSE, AND SCOPE

(1) These rules are promulgated in accordance with and under the authority of ORS 466.705 through 466.835 and ORS 466.895 through 466.995 as amended by Chapter 1071, Oregon Laws, 1989 (House Bill 3080) **and Chapter 863, Oregon Laws, 1991 (Senate Bill 1215)**.

(2) The purpose of these rules is to provide for the regulation of:

(a) persons who receive guaranteed loans for soil remediation, upgrading of underground storage tanks, and replacement of underground storage tanks where the underground storage tanks contain motor fuel and are regulated by ORS 466.705 through 466.835 and ORS 466.895 through 466.995; to provide assistance to owners of underground storage tanks in meeting Environmental Protection Agency requirements and obtaining financial responsibility coverage, and

(b) commercial lending institutions who issue guaranteed underground storage tank loans.

(3) These rules establish requirements and standards for:

(a) loan guarantees of up to 80 percent of the loan principal not to exceed $64,000 for UST upgrading, UST replacement, and soil remediation,

(b) applying and qualifying for a guaranteed loan through a commercial lending institution,

(c) loan interest rates,

(d) applying and qualifying for interest rate subsidies to commercial lending institutions,

(e) loan default, and

(f) Administration and enforcement of these rules by the Department.

(4) Scope:

(a) OAR 340-180-005 through -080 applies to persons who receive loan guarantee certificates and loan guarantees for soil remediation, underground storage tank upgrading, and underground storage tank replacement.

(b) OAR 340-180-090 through -110 applies to persons who receive tax credit certificates and loan interest rate subsidies on loans for soil remediation, underground storage tank upgrading, and underground storage tank replacement.

(c) OAR 340-180-120 applies to persons seeking a written notice of compliance from the Department for soil remediation.

340-180-090 GENERAL PROVISIONS, INTEREST RATE SUBSIDY AND TAX CREDIT CERTIFICATE

(1) Commercial lending institutions making loans for soil remediation, UST upgrading, and replacement of UST systems containing motor fuel may qualify to receive an Oregon income tax credit.

(2) The Oregon income tax credit may not exceed the difference between the amount of finance charge charged during the taxable year including interest on the loan and interest on any loan fee financed at an annual rate of seven and one half percent (7.5%) and the amount of finance charge that would have been charged by the commercial lending institution during the taxable year, including any interest on the loan and interest on any loan fee financed at an annual rate charged for nonsubsidized loans. For purposes of calculating the income tax credit, the determination of the interest rate charged on a nonsubsidized loan (including any additional notes or replacement notes) shall be calculated by using a fixed annual interest rate equal to three percent above the publicly announced prime rate of interest of either United States National Bank of Oregon or First Interstate Bank of Oregon, N.A. in effect on the date of the initial note. The commercial lending institution shall choose which of the two banks prime rate it uses to make this calculation. The difference in income between the interest rate calculated in this manner and a 7.5 percent interest rate shall be the tax credit due the commercial lending institution.

(3) Income tax credits may be received where:

(a) the borrower pays seven and one half percent (7.5%) fixed interest rate,

(b) the loan is amortized with equal payments over the term of the loan.

Note: To assure that funds are available from the UST Compliance and Corrective Action Fund (USTCCAF) to pay interest rate subsidies during the life of the loan, it is necessary for most loans to have equal payments over the term of the loan. The Department, however, recognizes that the lending policies may differ between commercial lending institutions and may differ between individual loans, particularly during construction. The Department is willing to consider other loan arrangements and other loan repayment schedules subsequent to the initial loan, such as multiple loans and loan refinancing where the interest rate subsidy conserves the USTCCAF monies so that all qualified interest rate subsidies are paid in full. Each new loan arrangement may be approved by the Department on a case by case basis. The final maturity date of the loan may not exceed 10 years from the initial note date.

(c) the loan maturity date does not exceed 10 years from the initial closing date,

(d) the borrower has received a tax credit certificate for an interest rate subsidy, and

(e) the loan applicant or the commercial lending institution has provided the terms of the loan to the Department. The terms of the loan include but are not limited to:

(A) amount of loan,

(B) down Payment,

(C) the nonsubsidized rate calculated in subsection (2) of this section,

(D) interest rate, and,

(E) the term of the loan from the initial note date.

(4) Only one interest rate subsidy may be issued to each facility.

(5) The interest rate subsidy is limited to loans for work for soil remediation at a facility where USTs contain motor fuel and work to upgrade or replace the underground storage tank systems containing an accumulation of motor fuel located at a facility where:

(a) the USTs are regulated by OAR Chapter 340, Division 150 and 40CFR 280,

(b) UST system upgrading, retrofitting and replacement is performed by licensed service providers in accordance with OAR 340-160-005 through -150,

(c) UST tightness testing and/or soil assessment was performed prior to application for a loan,

(d) UST tightness testing and soil assessment was performed in accordance with Department regulations,

(e) each regulated underground storage tank has a valid UST permit, and

(f) the loan is provided by a commercial lending institution.

(6) An Oregon income tax credit may be paid on loans provided by a commercial lending institution that are not guaranteed by the Department where the borrower has received a tax credit certificate from the Department.

(7) The commercial lending institution shall file for the Oregon income tax credit during their regular state income tax filing.

Note: The funds available for Oregon tax credits are estimated to total $3,874,000 over the life of the program, providing tax credits for approximately 245 loans. These 245 loans may be the same as or different from the proposed 245 loans guaranteed under OAR 340-180-070. When the Department has issued tax credit certificates that create a demand of approximately $3,874,000 on the UST Compliance and Corrective Action Fund the Department will recommend to the Environmental Quality Commission to set the maximum interest rate on loans at 7.5%. Since it is doubtful that any commercial lending institution will issue a 7.5% loan, the effective action will be to stop the subsidized interest rate program. The Department believes that this intended action is consistent with the legislative intent to fund the Oregon income tax credit out of the UST Compliance and Corrective Action Fund.

(8) Income tax credits may not be earned by a commercial lending institution after December 31, 1991. The commercial lending institution may file after December 31, 1991 for any Oregon income tax credits earned before January 1, 1992 under these rules.

(9) OAR Chapter 340, Division 180 only applies to projects for which soil remediation, UST upgrading and UST replacement work started after September 1, 1989 and had received an interest rate subsidy certificate or confirmation letter on or by October 1, 1991.

Attachment H
Agenda Item F
6-1-92 EQC Meeting

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF MODIFYING OAR Chapter 340, Divisions 170, 172, 174, 175, 176, 178, and 180	))))	STATEMENT OF NEED FOR RULES

Statutory Authority

ORS 466.705 through ORS 466.835 as amended by Chapter 863, Oregon Laws, 1991 (Senate Bill 1215) authorizes rule adoption for the purpose of providing financial assistance to persons who own or are responsible for an underground storage tank (UST) facility holding an accumulation of motor fuel for resale.

Specifically, the amendments authorize the Commission to adopt rules governing financial assistance in the form of loan guarantees, reduced interest rate subsidies, grants, and UST financial responsibility insurance copayments. Persons who own or are responsible for an underground storage tank facility holding an accumulation of motor fuel for resale may qualify for financial assistance if work on the USTs is performed at the facility. Work qualifying for assistance includes upgrading an UST facility, replacing an UST facility, conducting corrective action, or installing Stage I and II vapor collection system underground piping, hoses and nozzles in conformity with applicable state and federal underground storage tank, air quality and corrective action rules at an underground storage tank facility holding an accumulation of motor fuel for resale.

Need for the Rules

The proposed rules and rule modifications are needed to carry out the authority given to the Commission to adopt rules for providing financial assistance to persons who own or are responsible for an underground storage tank facility holding an accumulation of motor fuel for resale.

Principal Documents Relied Upon

Oregon Revised Statutes, ORS 466.705 through 466.835, 466.895 and 466.995.

Chapter 863, Oregon Laws, 1991 (Senate Bill 1215)

Fiscal and Economic Impact

Economic Impact

Federal underground storage tank regulations require UST owners and operators to demonstrate financial responsibility for cleanup of releases from UST systems. This requirement is usually met by purchasing insurance. Insurance companies will not provide insurance unless the applicant upgrades or replaces the USTs and provides proof of a clean site. This requires an investment of approximately $100,000 for a typical retail service station or the station to close at a cost of approximately $10,000 including tank removal and cleanup of contamination.

These rules provide financial assistance in the form of an 80% loan guarantee ($80,000 maximum), subsidized interest rates of 7.5%, 5%, 3%, or 1.5%, grants of 50% ($50,000 maximum) or 85% (85,000 maximum), and copayment of insurance premiums of up to 90% ($3,600 per year maximum) for 6 years. Approximately 1,700 facilities will be eligible for some financial assistance under this program. Financial assistance is determined by financial need of the tank owner and the number of tanks owned by the tank owner.

The financial assistance programs will, over the 20 year life of the program, spend approximately $34,375,000 for loan guarantees and grants, $59,342,000 for interest rate subsidies and $5,329,000 for insurance copayments. Because these monies allow construction of pollution control devices at the UST facility an additional estimated $30,000,000 will be provided to applicants as tax credits from the existing Pollution Control Tax Credit program.

Businesses owning or operating underground storage tanks contain motor fuel for resale will receive approximately $132,795,000 over the 20 year life of the UST financial assistance program.

State and local governments and public agencies do not qualify for financial assistance under this program.

Small Business Impact

Approximately 900 of these facilities are owned by small businesses. Of these, approximately 100 are rural small businesses. Small businesses will receive approximately $50,000,000 over the life of the program. On average, small businesses will receive higher levels of financial assistance than larger businesses.

Attachment I
Agenda Item F
6-1-92 EQC Meeting

DEQ LAND USE EVALUATION STATEMENT FOR RULE MAKING

PROPOSED NEW RULES TO IMPLEMENT UNDERGROUND STORAGE TANK FINANCIAL ASSISTANCE PROGRAM ENACTED IN SENATE BILL 1215

(1) Explain the purpose of the proposed rules.

The proposed rules provide for the regulation of persons who receive financial assistance for underground storate tank (UST) project work and buying UST insurance for UST facilities that hold or have held an accumulation of motor fuel for resale; and provide financial assistance to persons owning or responsible for UST that hold or have held an accumulation of motor fuel for resale, regulated by ORS 466.705 to 466.835 and federal regulations 40 CFR 280.

(2) Do the proposed rules affect existing rules, programs or activities that are consider land use programs in the DEQ State Agency Coordination (SAC) program? Yes ___ No X

(a) If yes, identify existing progam/rule/activity:

(b) If yes, do the existing statewide goal compliance and local plan compatability procedures adequately cover the proposed rules: Yes ___ No ___

If no, explain:

(c) If no, apply criteria 1, and 2. from the other side of this form and from Section III Subsection 2 of the SAC program document to the proposed rules. In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

The proposed rules do not have significant effects on statewide planning goals or local acknowledged comprehensive plans. The Department's state agency coordination program does not identify the underground storage tank financial assistance program as a program significantly affecting land use.

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

Division Intergovernmental Coor. Date 11-27-91

11/26/91

Attachment J
Agenda Item F
6-1-92 EQC Meeting

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY **INTEROFFICE MEMORANDUM**

DATE: May 12, 1992

TO: Environmental Quality Commission

FROM: Larry D. Frost

SUBJECT: Hearing Report Summary
and
Responsiveness Summary

On December 13, 1991, the Environmental Quality Commission authorized fourteen Public Hearings on proposed rules for the underground storage tank financial assistance program (Senate Bill 1215). Public hearings were held at 4:00 P.M. on:

- o January 13, 1992 in John Day, Oregon
- o January 14, 1992 in Ontario, Oregon
- o January 15, 1992 in Portland, Oregon
- o January 15, 1992 in La Grande, Oregon
- o January 16, 1992 in Pendleton, Oregon
- o January 21, 1992 in Bend, Oregon
- o January 21, 1992 in Coos Bay, Oregon
- o January 22, 1992 in Eugene, Oregon
- o January 22, 1992 in Roseburg, Oregon
- o January 23, 1992 in Klamath Falls, Oregon
- o January 23, 1992 in Medford, Oregon
- o January 27, 1992 in Tillamook, Oregon
- o January 28, 1992 in Salem, Oregon
- o January 29, 1992 in The Dalles, Oregon

A two hour informational meeting was held prior to each hearing to describe and answer questions on the financial assistance program.

The following persons either testified verbally at one of the hearings or submitted written comments as shown below.

Name/Representing	Verbal	Written/Date
Herb C. Wright Fossil, Oregon	Yes	January 13, 1992
Coy D. Johnston OK Garage Long Creek, Oregon	Yes	January 13, 1992

Mary E. Cannon Cannon's Tire Center Mitchell, Oregon	Yes	January 13, 1992
Melvin McKern McKern's Texaco and Food Mart Mt. Vernon, Oregon	Yes	January 13, 1992
Gregory Jackson Jackson OIl Company Canyon City, Oregon	Yes	January 13, 1992
Tom Grant Grants Petroleum Ontario, Oregon	Yes	January 14, 1992
Loren Cannaday Juntura Chevron Juntura, Oregon	Yes	January 14, 1992
Norman A. Poole Ontario, Oregon	Yes	January 14, 1992
Ron Goebel Wallowa, Oregon	Yes	January 15, 1992
Jo Anne Able La Grande, Oregon	Yes	January 15, 1992
Bob Mason Carlton, Oregon	Yes	January 15, 1992
Barbara Jean Wadekamper Irrigon, Oregon	Yes	January 16, 1992
Calvin Sherman Heppner, Oregon	Yes	January 16, 1992
Richard Stewart Walla Walla, Washington	Yes	January 16, 1992
Russell A. Harrington Harrington Petroleum Roseburg, Oregon	Yes	January 22, 1992
Ed J. Clough Clough Oil Co. Klamath Falls, Oregon	Yes	January 23, 1992 February 4, 1992

Rod L. Slade Klamath Falls, Oregon	Yes	January 23, 1992
Fred Ehlers Klamath Falls, Oregon	Yes	January 23, 1992
Bill Tuininon Sherwood, Oregon	Yes	January 28, 1992
John Alto Sherwood, Oregon	Yes	January 28, 1992
Wm. B. Sherer Ontario Flight Service Ontario, Oregon		January 21, 1992
Jeffrey C. Pitts Ontario Flight Service Ontario, Oregon		January 23, 1992
Jim Bellet Bellet Construction Klamath Falls, Oregon		January 21, 1992
Charles Rancour Charles Nonpariel Store Sutherlin, Oregon		January 29, 1992
Dennis G. Moreland Moreland Oil Co.		January 39, 1992
Jake Fatland Fatland's, Inc. Condon, Oregon		January 29, 1992
Mike Hawkins Hawk Oil Company Medford, Oregon		February 11, 1992
Claudia Green Alfafla Store Bend, Oregon		February 18, 1992
James Doherty Spray, Oregon		March 2, 1992
Tom Cook Tenmile Store Tenmile, Oregon		March 6, 1992

Bernard I. Nelson
Nestucca Marina
Pacific City, Oregon

March 12, 1992

USTFA Advisory Committee

April 7, 1992
April 21, 1992

COMMENT AND RESPONSE TO COMMENTS ON PROPOSED FINANCIAL ASSISTANCE RULES

ISSUE #1: Allow aboveground storage tanks (AST) in addition to underground storage tanks (UST)

COMMENT (Johnston): In summer of 1990 I updated my tanks by installing aboveground tanks in a cement vault. I think they should qualify for assistance. I am the only fuel supply for emergency vehicles at Long Creek.

COMMENT (Cannon): ASTs should receive financial assistance because of the cost of insurance, to support tourism and for emergency equipment. Tourism is the primary money maker in Mitchell and Wheeler county.

COMMENT (McKern): ASTs should receive financial assistance. ASTs would cost half as much and I wouldn't be paying insurance the rest of my life. We can't afford both pumping 300-500 gallons per day.

COMMENT (Grant): Owners should be able to receive financial assistance for replacing USTs with ASTs.

COMMENT (Cannaday): The fund should allow any upgrading of an UST including installation of an AST. The fire marshal now allows dispensing to the public from ASTs. ASTs remove the likelihood of underground leaks, allow visual monitoring and containment in the event of a leak. I will close my tanks if I do not receive funding, leaving no service station 32 miles east or west on Highway 20 from Juntura.

COMMENT (Poole): I am a petroleum wholesaler and sell to a number of Mom & Pop grocery store/service stations. A number of these dealers wish to install ASTs because they cannot afford pollution liability insurance. Additionally, they need financial assistance on replacing USTs with ASTs. ASTs should receive financial assistance.

COMMENT (Goebel): I believe ASTs in a vault should qualify for financial assistance.

COMMENT (Able): I have a small gas station in Starkey. I believe ASTs would be the most cost effective, be the least likely to contaminate and should qualify for financial assistance.

COMMENT (Harrington): I believe ASTs should be included as an alternative for replacement to USTs for several reasons; insurance costs, cheaper construction, environmentally more sound, and they may be able to save some smaller rural locations that can't afford either the UST construction or the insurance payments.

COMMENT (Clough): Where ASTs are feasible and comply with fire marshal regulations they should receive financial assistance.

COMMENT (Slade): ASTs should be included. The program is intended to get the old tanks out of the ground and replaced with new fuel facilities that are safe and non-polluting. It is impossible for small operators to get insurance.

COMMENT (Bellet): ASTs are less expensive than re-installation of USTs. ASTs are easier to monitor. You know immediately if you have a leak. ASTs are easier to work on. Changing from USTs to ASTs should receive financial assistance.

COMMENT (Rancour): It is really unfair that ASTs will not be covered under any program. I'm sure there are many others who feel that ASTs would be the only financial way they would be able to continue selling motor fuel to the consumer.

COMMENT (Fatland): We are concerned about the unavailability of financial assistance for replacing current UST's with ASTs. Although the rules allow insurance copayments, the insurance premium benefits for ASTs clearly favors installing ASTs for small operators. Federated Insurance quoted $3,525 per year for USTs and $525 per years for ASTs. The $3,000 difference would require us to increase sales by 26 percent to cover the additional cost. ASTs should receive financial assistance.

COMMENT (Cook): For those of us who live in and operate businesses in rural areas, ASTs offer a more cost effective solution to replacement of existing USTs. AST products on the market offer safety features that are not on USTs. AST warranties surpass those of USTs. An AST allows daily inspection by a laymen, immediate leak detection and faster repair than USTs. ASTs allow us to replace our USTs in the most cost effective manner.

COMMENT (Nelson): I recommend ASTs qualify for financial assistance for the following reasons:

1. In some instance ASTs would be less expensive.
2. There could be instances where USTs would not be allowed.
3. We now have USTs and pay the $0.011 assessment. If we install ASTs we would lose the amount we have paid, with no benefits.

COMMENT (Clough): The motor fuel assessment should be paid by any AST included in the program. It should be the option of the operator whether or not he wants to be included in the financial assistance program and pay the $0.011 assessment. He alternatively could choose to not receive benefits for his AST and not pay the assessment.

COMMENT (Ehlers): Both the ASTs and the USTs should pay the motor fuel assessment.

COMMENT (USTFA Advisory Committee): ASTs should only be allowed if the $0.011 per gallon assessment applied to motor fuel placed into ASTs. The facility would receive an unfair competitive advantage if ASTs did not pay the assessment.

DEPARTMENT RESPONSE: An Attorney General opinion confirmed that ASTs were not specifically excluded from receiving financial assistance. Rules could be adopted that would qualify ASTs for assistance. The testimony clearly identifies the benefits of reduced AST installation, operating and maintenance costs on the small rural motor fuel reseller. The Department believes that extending financial assistance to ASTs will enhance the availability of motor fuel in the rural part of the state thereby meeting the intent of legislature. However, ASTs do not pay the $0.011 per gallon assessment. The Department believes the legislature did not intend to provide financial assistance to facilities that did not pay the assessment.

DEPARTMENT RECOMMENDATION, ISSUE #1: The rules will be modified to allow facilities to apply for financial assistance to replace USTs with ASTs pending funding approval by the 1993 legislature. The Department will conditionally receive applications and fund the projects immediately after approval by the legislature providing money is available in the USTCCA Fund.

ISSUE #2: Cleanup requirements are too stringent

COMMENT (Wright): The cleanup rules should take in to account the quality and use of the groundwater where there is no possible contact or not even a chance of coming in contact with groundwater that is used for public consumption or use. Places such as Fossil, John Day or Monument should not be required to meet the same cleanup rules as the Willamette Valley or Florida. For instance, 90 percent of Fossil's water supply comes from wells on a hill 1,000 feet above us 2.5 miles away. Ten percent comes from a well 0.75 miles away. How could some small contamination affect our water we use for drinking?

COMMENT (Ehlers): There are aquifers in Oregon that are not suitable for drinking. I think there should be some sort of matrix, much as there is for soil, to determine the applicability of these standards to non-potable aquifers.

COMMENT (Tuininon): The cleanup requirements should be modified to reduce the cleanup costs for the small operator to encourage him to stay in business and cleanup the pollution. The big operator should be required to cleanup his pollution because he has the potential to cause more damage in the long run.

DEPARTMENT RESPONSE: While cleanup costs certainly effect the expenses of the financial assistance program, cleanup requirements are not a part of these rules.

DEPARTMENT RECOMMENDATION, ISSUE #2: These comments have been given to the UST Cleanup Section of Environmental Cleanup Division of DEQ for consideration with the comments they received on the proposed rules for numeric cleanup standards for groundwater contamination.

ISSUE #3: Use other criteria rather than distance criteria for Tier 4.

COMMENT (Mason): I feel that I'm one of the people falling through the cracks of your planning. I'm not the only service station in town and I'm within 9 miles of another. I believe the criteria should be gallonage rather than location. I think there should be a criteria for some of us little people who would like to stay in business.

COMMENT (Moreland): Many small dealers are located within 9 miles of an incorporated city and cannot qualify for Tier 4 benefits. These small dealers (1-12 tanks) cannot be classified with the larger dealers with 13-99 tanks. A small dealer (20,000 to 30,000 gallons per month) does not have the volume or buying contracts to compete with the pricing of the bigger dealers (100,000 gallons per month). Maybe a volume basis for financial assistance would be a fairer way, with the lower volume stations getting the Tier 4 benefits.

COMMENT (Fatland): The grouping of operators from one to 99 tanks into the same category is wrong. A single station operator with three tanks is hardly in the same position as an operator with 30 or more locations. Once again, the small operators with one or more competitors in their town do not receive the full benefit from the bill. The bill should be revised to include a fifth tier of assistance for the operator of one to twenty tanks.

DEPARTMENT RESPONSE: Unfortunately the criteria for each Tier is established by the statute. While each idea has merit, it is not possible for the Department to adopt rules in conflict with the statute.

DEPARTMENT RECOMMENDATION, ISSUE #3: Do not include volume as a criteria for financial need or modify the Tier 4 benefits.

ISSUE #4: Lost business should be an allowable UST project cost.

COMMENT (Wadenkamper): Downtime (during UST replacement) is going to be a big problem for the smaller retailer and also for the majors. The rules do not allow to include lost business as an expense. When you close a business down and that's your only source of income, you still have employees to pay and all your fixed costs and overhead are still there. Oregon should include downtime costs in the financial assistance program.

DEPARTMENT RESPONSE: The expenses associated with lost business were excluded from allowable UST project costs because they represent a significant cost that was not included in the legislative debate or program budget, cannot be easily controlled by the Department and could be easily abused by applicant by merely slowing the project or delaying work.

DEPARTMENT RECOMMENDATION, ISSUE #4: The Department is not proposing to include lost business expenses.

ISSUE #5: Financial assistance for closure.

COMMENT (Stewart): We would like to have financial assistance for tank decommissioning (closure).

DEPARTMENT RESPONSE: Senate Bill 1215 was developed to maintain a gasoline supply in Oregon, particularly the rural areas. Accordingly, the bill did not provide assistance for cleanup and UST removal unless the tank was replaced with another tank that would resell motor fuel to the public.

DEPARTMENT RECOMMENDATION, ISSUE #5: The rules will not be changed to include tank decommissioning.

ISSUE #6: Allow USTs containing aviation fuel for resale to qualify for assistance.

COMMENT (Scherer): The previous UST assistance program allowed benefits to aviation USTs without any corresponding taxes, fees or assessments. Tanks containing aviation fuel should be included in the financial assistance program.

COMMENT: (Pitts): I own an airport in Ontario, Oregon with two USTs. I am subject to all the rules and restrictions of DEQ, care, maintenance, and environmental quality regarding these tanks. Excluding my operation from qualifying for financial assistance to meet new environmental quality standards is unfair.

DEPARTMENT RESPONSE: The Department excluded aviation fuel USTs from the financial assistance program because aviation fuel does not strictly meet the definition of motor fuel under Senate Bill 1215 thus the facility does not pay the motor fuel assessment. The Department believes the legislature intentionally excluded fuel facilities for aviation by only providing assistance to facilities serving the motoring public.

DEPARTMENT RECOMMENDATION, ISSUE #6: Do not include USTs containing aviation fuel in the financial assistance program.

ISSUE #7: Allow an operator to move to another site.

COMMENT (Clough): Please allow an operator to move to another site and still qualify for the financial assistance if the new site is located to serve the same customer base. The ability to move would allow a better cleanup of the original site without business interruption.

DEPARTMENT RESPONSE: The Department believes the intent of the statute would be met if the replacement tank was located to serve the same customers.

DEPARTMENT RECOMMENDATION, ISSUE #7: The rule will be modified to allow installation of the tank at a new location where the Department finds that the facility serves the same customer base.

ISSUE #8: Financial test should be made on person paying for tank upgrade.

COMMENT (Hawkins): It would be unreasonable, and a great hardship on distributors to require the tank owner to qualify for financial assistance. The real issue is not who owns the tanks, but who will be investing in the upgrade.

DEPARTMENT RESPONSE: The Department considered several methods for determining financial need. The Department, together with the Financial Assistance Advisory Committee, determined that of the three possible applicants, property owner, tank owner or tank operator, the tank owner is most often looked to for compliance with UST requirements. For example: In 1984, federal regulations required the tank owner to notify and provide information to DEQ about each UST; financial responsibility requirements are based upon tank ownership. The tank owner most often notifies the Department when tank or property ownership or the operator changes. The tank owner, shown on Department records at time of application, is evaluated to determine financial need. Thus, opportunities exist for changes in ownership to occur before the application is filed.

The USTFA Advisory Committee and the Department were also concerned that the financial analysis could be skewed toward the weakest financial partner if any of the parties were allowed to apply. This could cost the program more money than anticipated, thereby limiting the number of facilities that would receive financial assistance.

DEPARTMENT RECOMMENDATION, ISSUE #8: The Department believes the present rule is an equitable and workable method for determining financial need while making sure that the maximum number of facilities possible are helped by the program.

ISSUE #9: Tier 4 grant should not have to be paid back upon property transfer.

COMMENT (Green): Under the plan presented (proposed rules) our business will fall under Tier 4. If we take advantage of the grant that is available and continue to try to sell our business we will be forced to pay back this grant under Tier 4 Location Criteria. This is unfair.

DEPARTMENT RESPONSE: The statute requires a recipient of Tier 4 benefits sign a lien agreement that requires the applicant to own the facility for five years or pay back the 85 percent grant money if sold prior to the end of the five year period. The legislature believed cleaning up contamination and replacing the USTs would restore property value and make the property salable. The legislature placed one condition on the 85 percent grant money and required it to be paid back if the property sold within 5 years. They did not believe this would be a burden since the proceeds of the sale could be used to pay the grant back.

DEPARTMENT RECOMMENDATION, ISSUE #9: Since the Department does not have the option of waiving this requirement, the rule should remain unchanged.

ISSUE #10: Distance criteria should include AST fueling facilities.

COMMENT (Doherty): I would propose that you consider the following change: <u>That in the specific case of Tier 4 location criteria only</u>, the word "(retail) facility" be re-defined to include any fuel storage facility, including existing ASTs.

DEPARTMENT RESPONSE: The Department believes the statute considers all motor fuel facilities that store motor fuel for resale when measuring the 9-mile distance.

DEPARTMENT RECOMMENDATION, ISSUE #10: The rule will be clarified to include both USTs and ASTs.

ISSUE #11: Reduced interest rates should encourage long term financing (10 plus years).

COMMENT (USTFA Advisory Committee): The lenders interest rates are not adequate to compete with competitive short term and long term investments, such as Treasury Notes. These loans are high risk and cannot be sold on the secondary market.

DEPARTMENT RESPONSE: The Department agrees that the allowed lenders interest rates do not encourage long term loans. The Department will investigate the competitive investment vehicles and develop lender interest rates that will encourage long term loans for UST project work. The financial impact of the interest rate changes will be reviewed to determine whether adequate funding is available.

DEPARTMENT RECOMMENDATION, ISSUE #11: The rule will be changed to encourage long term loans and to be more competitive in the lending market.

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY **MEMORANDUM**

DATE: June 1, 1992

TO: Environmental Quality Commission

FROM: Fred Hansen

SUBJECT: Agenda Item F, Further Ammendment to Proposed UST Financial Assistance Rules

The financial assistance rules being considered for adoption at the June 1, 1992 EQC meeting must be further modified to include concerns expressed by Shelly McIntyre, AG Office and EPA, Region 10.

Shelly was concerned about the wording of subparagraph (3) of OAR 340-172-080 where the rules discuss how AST projects will be prioritized, approved and funded. The new wording is an improvement in that it clarifies the limitations on AST funding.

EPA Region 10 was concerned about four issues that they had not previously recognized about SB 1215 and the proposed rules.

1. The Consent Agreement waived enforcement of all UST technical and financial responsibility requirements except the requirements in the Consent Agreement.

2. The Consent Agreement and the rules do not require annual tank tightness testing.

3. The Consent Agreement and the rules do not require an owner or operator to immediately empty a leaking tank except where "imminent hazard" was present.

4. The definition of "imminent hazard" did not include threats to a potential ground water drinking water supply.

EPA agreed to allow DEQ to encourage and enforce compliance without EPA doing separate enforcement. We resolved the issues in the following manner by modifying OAR 340-172-010 and -120.

1. EPA agreed the Consent Agreement was an enforceable order that DEQ could use together with these rules to require the responsible party to protect the environment.

2. DEQ agreed to promote through education and compliance, an enhanced inventory control protocol on all persons submitting a Consent Agreement. The rules now require the person signing the Consent Agreement to provide copies of their monthly inventory records. The Department will also be providing training sessions and written guidance on proper inventory methods. By chance EPA has recently approved a $15,000 TIPS grant that will be used for this purpose.

3. The rules now require, upon confirmation of a release, immediate action to prevent further releases.

4. The definition of "imminent hazard" has been modified to include potential ground water drinking water sources.

New pages A-3, A-21, A-22, and A-23 replace the former text. Subsequent pages are renumbered.

(14[~~13~~]) "Financial responsibility requirements" means the UST financial responsibility requirements in OAR 340-150-002, OAR 340-150-004 and FR 40 CFR 280.

(15[~~14~~]) "Grant" means payment for costs of UST project work.

(16[~~15~~]) "Guarantor" means any person other than the permittee who by guaranty, insurance, letter of credit or other acceptable device, provides financial responsibility for an underground storage tank as required under ORS 466.815.

(17[~~16~~]) "Imminent hazard" means petroleum contamination or threat of petroleum contamination to a ground water drinking water supply **or potential ground water drinking water supply** or where a spill or release of petroleum is likely to cause a fire or explosion that threatens public life and safety or **where a spill or release of petroleum** threatens a critical habitat or an endangered species.

(18[~~17~~]) "Investigation" means monitoring, surveying, testing or other information gathering.

(19[~~18~~]) "Licensed" means that a firm or an individual with supervisory responsibility for the performance of tank services has met the Department's minimum experience and qualification requirements to offer or perform services related to underground storage tanks and has been issued a license by the Department to perform those services.

(20[~~19~~]) "Licensed Public Accountant" means a Certified Public Accountant (CPA) or a Public Accountant (PA) licensed to practice in Oregon.

(21[~~20~~]) "Local unit of government" means a city, county, special service district, metropolitan service district created under ORS chapter 268 or political subdivision of the state.

(22[~~21~~]) "Motor fuel" means a petroleum or a petroleum-based substance that is a motor gasoline, [~~aviation-gasoline,~~] No.1 or No. 2 diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor engine.

(23[~~22~~]) "New tank standards" means modifying an UST or replacing an UST to comply with the 1998 technical requirements of OAR Chapter 340, Division 150 and FR 40 CFR 280.

(24[~~23~~]) "Operator" means any person in control of, or having responsibility for, the daily operation of the UST **or AST system**.

(25[~~24~~]) "Owner" means the owner of an underground storage tank#.

(26[~~25~~]) "Permittee" means the owner or a person designated by the owner who is in control of or has responsibility for the daily operation or daily maintenance of an underground storage tank under a permit issued pursuant to OAR Chapter 340, Division 150.

(3) The Department will receive and conditionally approve projects where ASTs replace existing USTs prior to the legislature reviewing and approving AST replacement projects for financial assistance under these rules. Applications for AST replacement projects receiving conditional approval will be funded after the effective date of legislative action that includes AST replacement projects, subject to funds being available in the USTCCA Fund.

340-172-090 FINANCIAL RESPONSIBILITY

(1) Applicants receiving UST financial assistance under these rules must demonstrate compliance with the financial responsibility requirements of OAR 340-174-060 and Division 150 within 60 days of the Department issuing a letter requiring demonstration of financial responsibility pursuant to OAR Chapter 340, Division 174.

(2) The applicant shall request copayment from the Department within 30 days after receipt of the letter requiring demonstration of financial assistance. The request shall conform to the requirements of OAR Chapter 340, Division 174.

340-172-100 RECORDS

(1) The Department and commercial lending institutions shall have access to books, documents, papers and records of the applicant which are directly pertinent to qualifying for financial assistance for the purpose of making audit, examination, excerpts and transcripts. The applicant shall maintain these records for three years after upgrading the UST to new tank standards, ~~[or]~~ replacement of the UST, or completion of the AST project.

340-172-110 APPEAL PROCEDURES

(1) If an applicant disagrees with the Department's decision regarding financial assistance for that applicant under these rules, the applicant may request a formal contested case hearing in accordance with ORS 183.310 through ORS 183.550 and rules promulgated thereunder.

(2) A request for a formal contested case hearing shall be in writing and received by the Department within twenty (20) days after the Department awards or denies financial assistance.

(a) The request for a formal contested case hearing must include:

(A) the name, mailing address and telephone number of the requestor; and

(B) a brief, clear summary of the reasons for requesting the hearing.

(3) In addition to requesting a contested case hearing, the Department encourages the requestor to ask for an informal review to resolve the disagreement. The informal review will be held at a time and place agreed upon by the Department and the requestor within thirty (30) days after the Department receives the request for formal contested case hearing. The Department shall send a meeting notice to all review committee members; and by certified mail, return receipt requested, to the requestor.

(4) The Department informal review committee shall be:

(a) the UST Compliance Section Manager;

(b) the UST Project Reviewer or the UST Regional Advisor; and

(c) the Finance Section Manager. The Finance Section Manager shall serve as chair.

(5) The requestor shall have the opportunity before and during the informal review to provide any additional relevant information. The requestor may be accompanied by persons involved in the UST project work such as licensed Public Accountant, project manager, consultant, licensed Service Provider or Supervisor.

(6) When applicable, the Department will issue an amended determination and corresponding certificates based on the recommendation of the informal review committee within thirty (30) days after completion of the informal review.

340-172-120 ~~[DEFERRAL OF]~~ ENFORCEMENT

(1) Where a person who is the tank owner, property owner or permittee has submitted a financial assistance application or has filed a signed Letter of Intent or Consent Agreement (Appendix C~~[B]~~), in accordance with these rules, the facility shall not be subject to enforcement action of the technical or financial responsibility requirements of OAR Chapter 340, Division 150 on the UST facility if the person has made a good faith effort to either secure a confirmation letter for UST project work by December 31, 1994 or permanently close the UST facility on or before December 31, 1994 except for;

(a) UST permit requirements, including permit fees;

(b) corrective action requirements in the event of an imminent hazard, as defined in OAR 340-172-010(17);

(c) permanent decommissioning requirements where the applicant permanently decommissions an UST at the UST facility;

(d) leak detection requirements. The person signing the Consent Agreement must provide monthly inventory records to the Department, on a form provided by the Department when requested by

the Department, for each UST using manual inventory or daily inventory with monthly reconciliation as the sole method of leak detection; and

(e) the requirements of the signed Consent Agreement.

(2) The [~~requirements listed in the~~] Consent Agreement will be in force through [~~deferred from enforcement until~~] December 31, 1994 or sixty (60) days after the UST project work is complete which ever comes first.

(3) The person signing the consent agreement must;

(a) report all suspected releases to the Department of Environmental Quality within 24 hours and investigate all suspected releases;

(b) report all confirmed releases to the Department of Environmental Quality within 24 hours; [~~and~~]

(c) upon confirmation of a release take immediate action to prevent any further release of motor fuel into the environment; and

(d[~~e~~]) take appropriate corrective action in accordance with OAR Chapter 340, Divisions 122 and 150 in the event of an imminent hazard as defined in OAR 340-172-010(17).

340-172-130 ENFORCEMENT AND TERMINATION OF FINANCIAL ASSISTANCE

(1) The Department may terminate financial assistance and require repayment of any financial assistance by any person receiving financial assistance under these rules if the person:

(a) fraudulently obtains or attempts to obtain financial assistance;

(b) knowingly fails to report any release of a regulated substance at the UST facility as required by OAR 340-122-220 if the release occurred before or after filing an application under these rules.

(c) is ordered by the Department to comply with the requirements of Chapter 340, Divisions 172, 174, 175, 176 and 178 and applicable underground storage tank regulations in OAR Chapter 340, Chapter 122, Chapter 150, Chapter 160, and Chapter 162; or

(d) a civil penalty is assessed by the Director.

(2) A written determination to terminate financial assistance shall be made by the Department for each affected facility and shall identify the facility, the UST project work, the financial assistance benefits, the persons responsible for repayment of the financial assistance, and the schedule for repayment of the financial assistance monies to the Department. Repayment shall be required for all monies expended for financial assistance under these rules including fees paid by the Department directly related to financial assistance at this facility.

Typical Service Station
Environmental Compliance Costs

Given Factors per Location:

Initial Upgrade & Cleanup Costs:	
Tank Upgrade	125,000
Soil Cleanup	56,000
Ground Water Equipment and Corrective Action Plan (CAP)	50,000
Stage II Vapor Recovery	30,000
Total	261,000
Recurring Annual Costs:	
Pollution Liability	3,000
Ground Water Monitoring	16,000
Oxygenated Fuel Fees	800
Total	19,800
SB 1215 Tier III Factors:	
Grant Percent	50.0%
DEQ Buy Down Loan Rate	3.0%
Market Rate Loan Rate	12.0%
Loan Term	5 Yrs

Monthly Cost Analysis		Allocation of Costs			
Project Item	Project Cost	Grant	DEQ Buy–Down Loan	Mkt Rate Loan	Monthly Cost
Without SB 1215					
Tank Upgrade	125,000			125,000	2,781
Soil Cleanup	56,000			56,000	1,246
Ground Water Equipment	50,000			50,000	1,112
Ground Water Monitoring					1,333
Total Ground Water					2,446
Stage II Vapor Recovery	30,000			30,000	667
Pollution Liability					250
Oxygenated Fuel Fees					67
Totals Without SB 1215	261,000			261,000	7,456
With SB 1215 Tier III					
Initial Upgrade & Cleanup	261,000	50,000	50,000	161,000	4,480
Recurring Annual Costs, Including Ground Water Monitoring					1,650
Totals With SB 1215 Tier III	261,000			161,000	6,130

Impact of Cost in Cents/Gallon	50,000 gal	75,000 gal	100,000 gal	125,000 gal	150,000 gal	175,000 gal
Without SB 1215						
Tank Upgrade	5.6 ¢	3.7 ¢	2.8 ¢	2.2 ¢	1.9 ¢	1.6 ¢
Soil Cleanup	2.5 ¢	1.7 ¢	1.2 ¢	1.0 ¢	.8 ¢	.7 ¢
Total Ground Water Cleanup	4.9 ¢	3.3 ¢	2.4 ¢	2.0 ¢	1.6 ¢	1.4 ¢
Stage II Vapor Recovery	1.3 ¢	.9 ¢	.7 ¢	.5 ¢	.4 ¢	.4 ¢
Pollution Liability	.5 ¢	.3 ¢	.3 ¢	.2 ¢	.2 ¢	.1 ¢
Oxygenated Fuel Fees	.1 ¢	.1 ¢	.1 ¢	.1 ¢	.0 ¢	.0 ¢
Total Without SB 1215	14.9 ¢	9.9 ¢	7.5 ¢	6.0 ¢	5.0 ¢	4.3 ¢
With SB 1215 Tier III	12.3 ¢	8.2 ¢	6.1 ¢	4.9 ¢	4.1 ¢	3.5 ¢

Cumulative Graphing Data

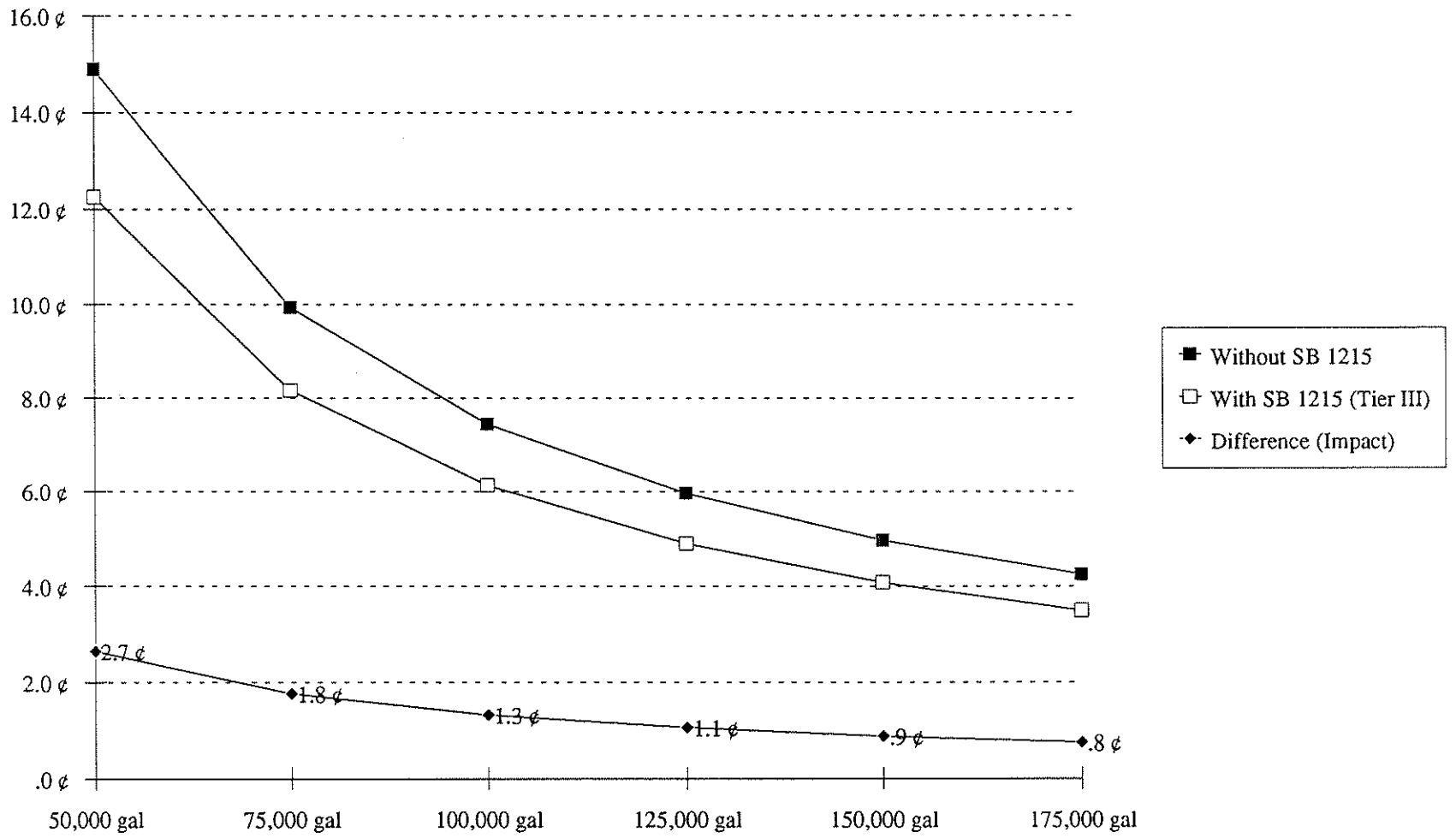
For Pie & Area Charts

	50,000 gal	75,000 gal	100,000 gal	125,000 gal	150,000 gal	175,000 gal
Remaining Pool Margin	.1 ¢	2.6 ¢	2.5 ¢	2.0 ¢	2.0 ¢	1.7 ¢
Insurance and Oxy Fuel Fees	.6 ¢	.4 ¢	.3 ¢	.3 ¢	.2 ¢	.2 ¢
Stage II Vapor Recovery	1.3 ¢	.9 ¢	.7 ¢	.5 ¢	.4 ¢	.4 ¢
Ground Water Cleanup	4.9 ¢	3.3 ¢	2.4 ¢	2.0 ¢	1.6 ¢	1.4 ¢
Soil Cleanup	2.5 ¢	1.7 ¢	1.2 ¢	1.0 ¢	.8 ¢	.7 ¢
Tank Upgrade	5.6 ¢	3.7 ¢	2.8 ¢	2.2 ¢	1.9 ¢	1.6 ¢
Current Pool Margin	15.0 ¢	12.5 ¢	10.0 ¢	8.0 ¢	7.0 ¢	6.0 ¢

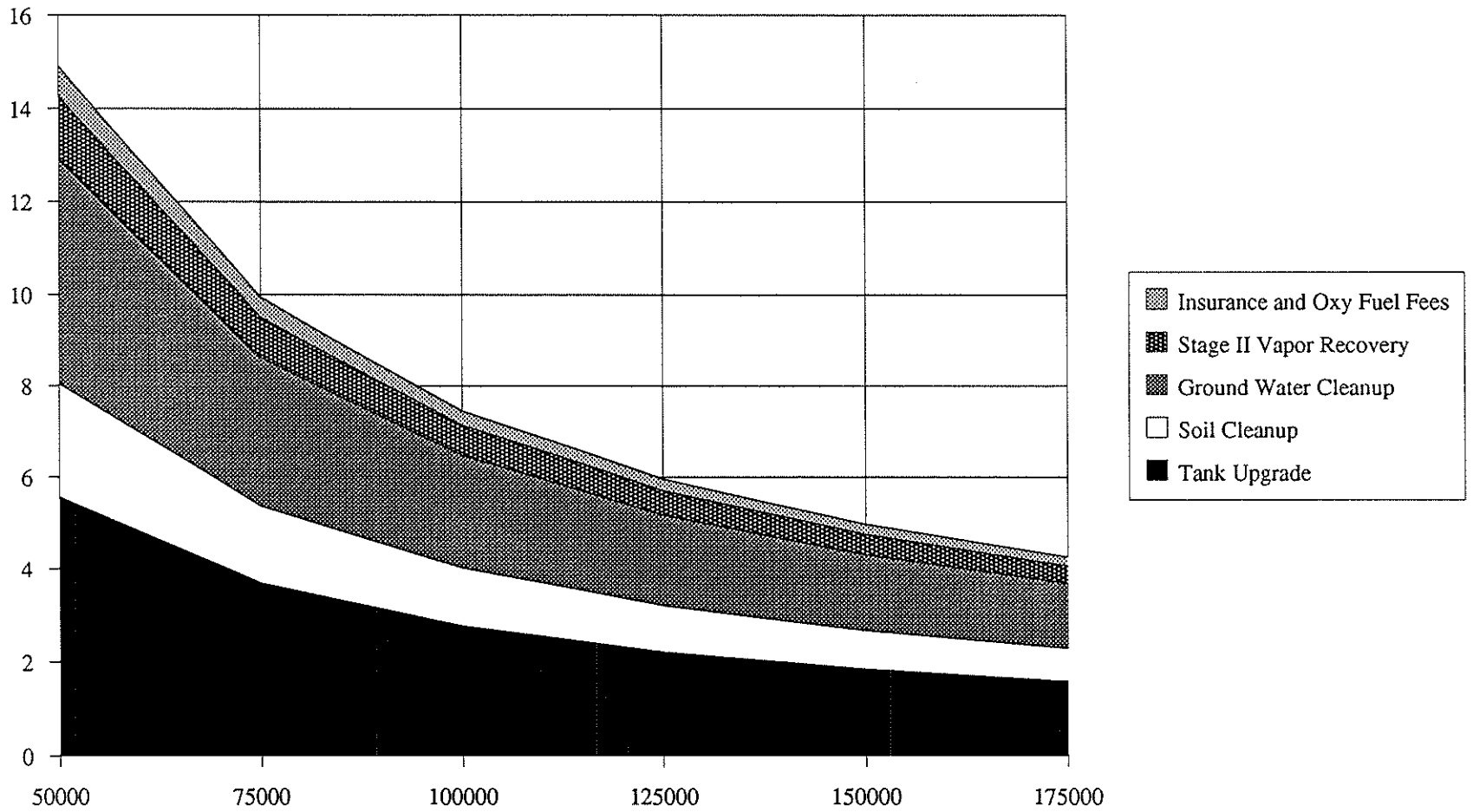
With and Without SB1215 (Tier III)

	50,000 gal	75,000 gal	100,000 gal	125,000 gal	150,000 gal	175,000 gal
Without SB 1215	14.9 ¢	9.9 ¢	7.5 ¢	6.0 ¢	5.0 ¢	4.3 ¢
With SB 1215 (Tier III)	12.3 ¢	8.2 ¢	6.1 ¢	4.9 ¢	4.1 ¢	3.5 ¢
Difference (Impact)	2.7 ¢	1.8 ¢	1.3 ¢	1.1 ¢	.9 ¢	.8 ¢

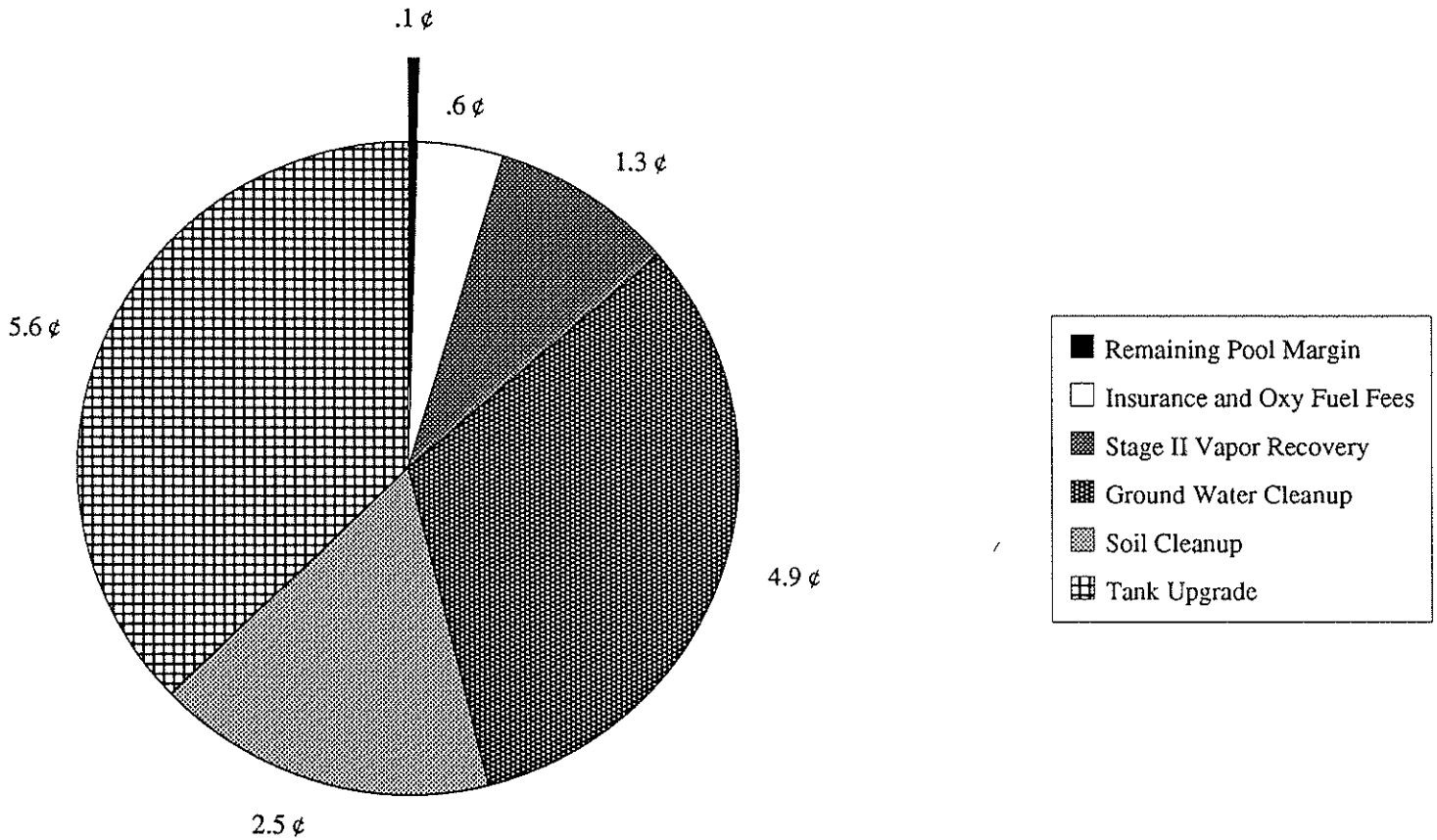
Impact of SB 1215 (Tier III) on Total Environmental Compliance Cost



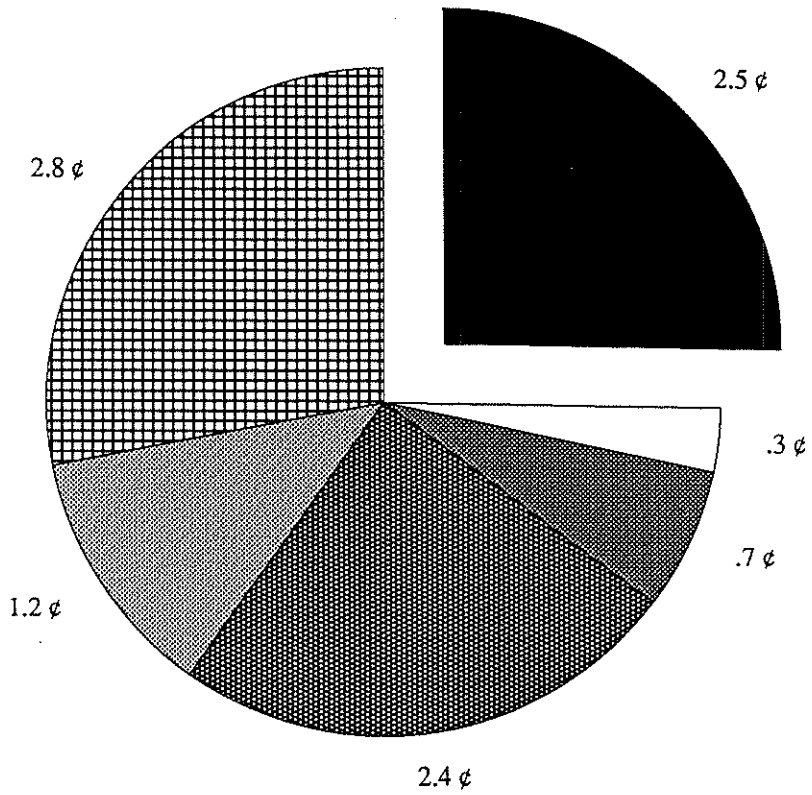
Accumulation of Environmental Compliance Cost (Without SB 1215)



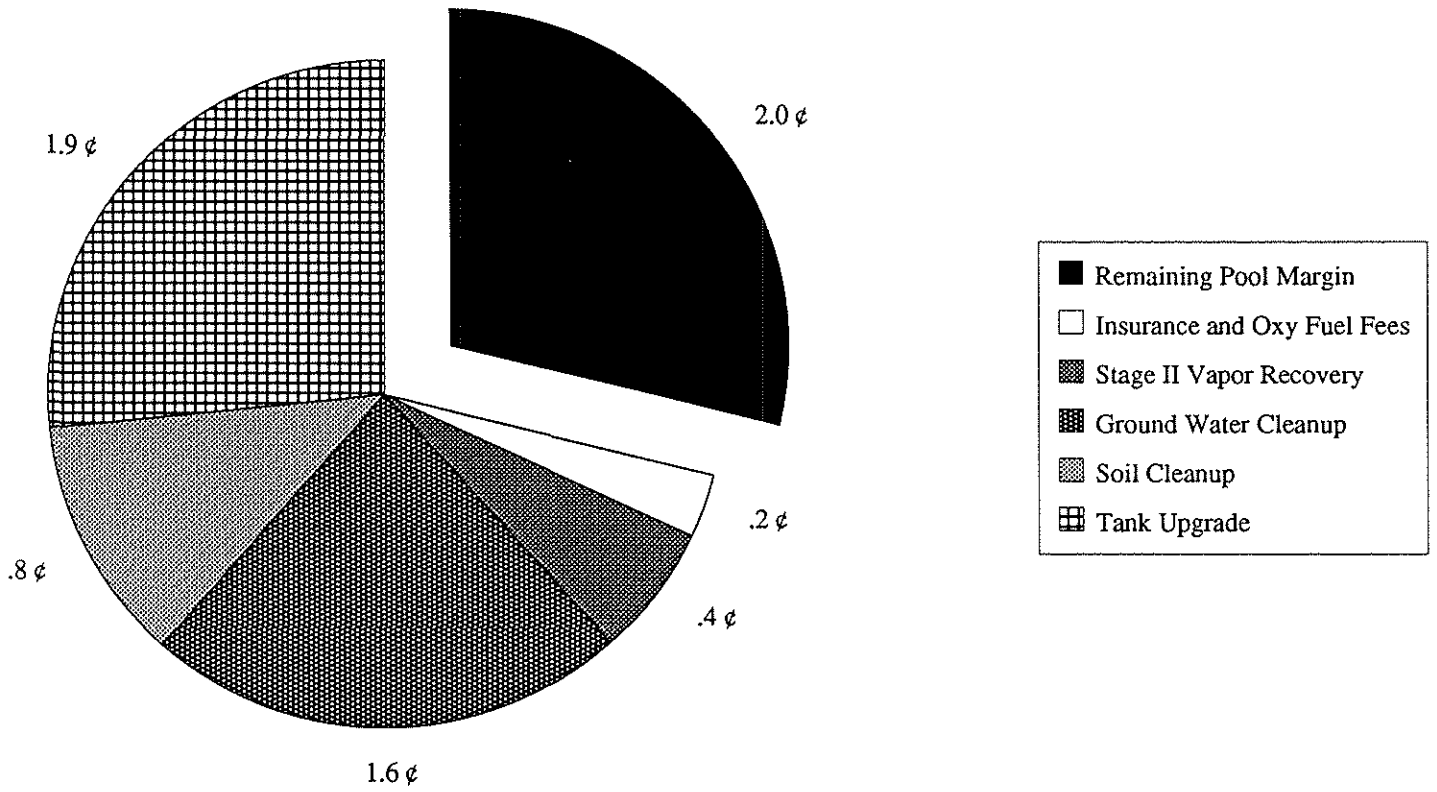
Remaining Pool Margin
After Allocation of Environmental Compliance Cost
Volume of 50,000 Gallons per Month



Remaining Pool Margin
After Allocation of Environmental Compliance Cost
Volume of 100,000 Gallons per Month



Remaining Pool Margin
After Allocation of Environmental Compliance Cost
Volume of 150,000 Gallons per Month



Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

REQUEST FOR EQC ACTION

Meeting Date: June 1, 1992
Agenda Item: J
Division: MSD
Section: Finance

SUBJECT:

Bond Issuance Resolution for Mid-Multnomah County Sewers (City of Gresham).

PURPOSE:

Authorization to issue Pollution Control Bonds in the amount of $1,500,000 is sought for one purpose: purchase of special assessment bonds from the City of Gresham for sewer construction in mid-Multnomah County.

At its June 29, 1990 meeting, the Environmental Quality Commission (EQC) approved Intergovernmental Agreements between the Department of Environmental Quality (DEQ or Department) and the Cities of Portland and Gresham. The agreements are part of the implementation plan for the protection of drinking water in mid-Multnomah County. The agreements establish a mechanism for financing sewer construction; it calls for DEQ to purchase special assessment improvement bonds (SABs) issued by the cities with the proceeds of simultaneously issued State of Oregon Pollution Control Bonds.

The Intergovernmental Agreement is a master agreement that will control a series of bond purchases over about fourteen years. This bond purchase is the third of that series. Total: $1,500,000.

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

Attachment
Attachment

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993

Fiscal and Economic Impact Statement — Attachment ___
Public Notice — Attachment ___

___ Issue a Contested Case Order
___ Approve a Stipulated Order
___ Enter an Order
Proposed Order — Attachment ___

_X_ Approve Department Recommendation
___ Variance Request — Attachment ___
___ Exception to Rule — Attachment ___
___ Informational Report — Attachment ___
_X_ Other: (specify) — Attachment _A_

Authorize sale of State of Oregon Pollution Control Bonds. Attachment A is the Bond Issuance Resolution.

DESCRIPTION OF REQUESTED ACTION:

EQC authorization of the sale of State of Oregon Pollution Control Bonds for the purposes of purchasing SABs for sewer construction in mid-Multnomah County.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: _____ — Attachment ___
Enactment Date: _____
_X_ Statutory Authority: ORS 468.195 - .220 — Attachment ___
_X_ Pursuant to Rule: OAR 340-81-005 -100 — Attachment ___
___ Pursuant to Federal Law/Rule: _____ — Attachment ___

___ Other: — Attachment ___

_X_ Time Constraints: (explain)
The sale of the Pollution Control Bonds is scheduled for July, 1992.

DEVELOPMENTAL BACKGROUND:

___ Advisory Committee Report/Recommendation — Attachment ___
___ Hearing Officer's Report/Recommendations — Attachment ___
___ Response to Testimony/Comments — Attachment ___
_X_ Prior EQC Agenda Items: (list)

Agenda Item N, May 25, 1990. Pollution Control Bonds: Background on Agreement Provisions and Future Bond Sale for Mid-Multnomah County Sewers.

Agenda Item O, June 29, 1990. Pollution Control Bonds: Review of Agreement Provisions and Authorization of Bond Sales for Mid-Multnomah County Sewers.

Agenda Item M2, August 10, 1990. Pollution Control Bonds: Authorization to issue State of Oregon Pollution Control Bonds, review of Bond Purchase Agreements, and authorization of special assessment improvement bond purchases for Mid-Multnomah County sewers.

Agenda Item I, September 18, 1991. Pollution Control Bonds: Authorization to issue State of Oregon Pollution Control Bonds.

___ Other Related Reports/Rules/Statutes Attachment ___
_X_ Supplemental Background Information Attachment _B_

Letter from City of Gresham requesting DEQ to purchase $1,500,000 of special assessment bonds.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The issuance of Pollution Control Bonds is a primary financing tool for the sewering of mid-Multnomah County. Should the bonds not be issued, the risk sharing partnership between the state and the affected areas of the mid-Multnomah County sewering program would cease to function. The withdrawal by the state would create a disruption in that construction program that may delay efforts to remove the threat to drinking water in the affected area.

PROGRAM CONSIDERATIONS:

The City of Portland is in the process of restructuring its approach to financing sewer construction in mid-Multnomah County. Depending on how these changes are implemented, Portland might decide that it no longer needs to exercise its prerogative to sell special assessment bonds to DEQ under the current Intergovernmental Agreement. It is not clear how the City of Portland's actions might affect the City of Gresham. Should any changes be proposed to the agreement, they would come to the EQC in the form of an amendment.

To reduce issuance costs and make the program more affordable, this bond sale will combined with the issuance of orphan site cleanup bonds previously approved by the Environmental Quality Commission on September 18, 1991.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

The Department did not consider alternatives; the sale of State of Oregon Pollution Control Bonds is the only mechanism now available to effectively implement the program.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

Authorize the sale of State of Oregon Pollution Control Bonds for the purposes described above.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Authorization of the bond sales is consistent with prior Commission actions concerning the protection of drinking water in the mid-Multnomah County area. It is also consistent with agency policies and with legislative intent.

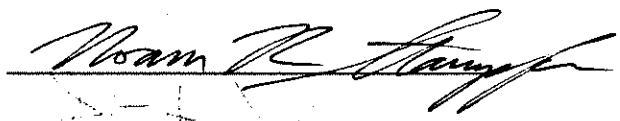
ISSUES FOR COMMISSION TO RESOLVE:

None.

INTENDED FOLLOWUP ACTIONS:

Proceed with the sale of Pollution Control Bonds.

Approved:

Section: 

Division: _____

Director: 

Report Prepared By: Noam R. Stampfer

Phone: 229-5355

Date Prepared: April 28, 1992

NRS:nrs
EQCBONDS.601
April 28, 1992

Attachment A

RESOLUTION AUTHORIZING AND REQUESTING ISSUANCE OF BONDS

The Environmental Quality Commission of the State of Oregon finds:

A. The Department of Environmental Quality (the "Department") has entered into an Intergovernmental Agreement with the City of Gresham (the "City"). The agreement contemplates that the State of Oregon will issue General Obligation Pollution Control Bonds to finance the purchase of special assessment improvement bonds of the City (the "Assessment Bonds"). The City will issue the Assessment Bonds to finance sewer system improvements in mid-Multnomah County pursuant to the Mid-County Sewer Implementation Plan.

B. It is now desirable to issue approximately $1,500,000 of State of Oregon General Obligation Pollution Control Bonds to finance the purchase of the Assessment Bonds which the City proposes to issue this calendar year in accordance with the Intergovernmental Agreement. These bonds may be issued with other bonds previously authorized by the Environmental Quality Commission.

C. Oregon Revised Statutes, Section 286.031, provides that all bonds of the State of Oregon shall be issued by the State Treasurer.

The Environmental Quality Commission of the State of Oregon hereby resolves:

Section 1. Issue. The State Treasurer of the State of Oregon is hereby authorized and requested to issue State of Oregon General Obligation Pollution Control Bonds ("Pollution Control Bonds") in amounts which the State Treasurer determines, after consultation with the Director of the Department or the Director's designee, will be sufficient to purchase the Assessment Bonds to be issued by the City this calendar year and to pay costs associated with issuing the Pollution Control Bonds. The Pollution Control Bonds shall mature, bear interest, be subject to redemption, be in such series, and otherwise be issued and sold upon the terms established by the State Treasurer after consultation with the Director of the Department or the Director's designee.

Section 2. Tax Exempt Status. The Department shall comply with all provisions of the Internal Revenue Code of 1986, as amended (the "Code") which are required for interest on the Pollution Control Bonds to be excludable from gross income under the Code. The Department shall take all steps required so that the Pollution Control Bonds will not be "private activity bonds" under Section 141 of the Code, and will not be "arbitrage bonds" under Section 148 of the Code. The Department shall pay any rebates or penalties which may be due to the United States in connection with the Pollution Control Bonds under Section 148 of the Code. The Director of the Department or the Director's designee may enter into covenants, on behalf of the

Department, regarding the maintenance of the tax-exempt status of the Pollution Control Bonds.

Section 3. Other Action. The Director of the Department or the Director's designee may, on behalf of the Department, execute any agreements or certificates, and take any other action the Director or the Director's designee reasonably deems necessary or desirable to issue and sell the Pollution Control Bonds, to purchase the City's Assessment Bonds in accordance with this resolution.

Attachment B

CITY OF GRESHAM

Management Services Department
501 N.E. Hood Avenue, Suite 100
Gresham, OR 97030-7395
(503) 661-3000

May 7, 1991

Noam Stampfer
Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204

Dear Noam,

Please consider this correspondence notice that the City of Gresham intends to participate (along with the "orphans") in the July 1992 State of Oregon g/o issue. I'm assuming that the split of the estimated $75,000 in issue costs will be pro-rata ($1.5m to $3.7m) and that we won't be assessed more than our pro-rata share of the prior assessment issue's cost carry-over.

We're currently rerunning the numbers and also checking our Council calendar, ordinance requirements, etc. I'll call you tomorrow with the exact dollar amount and also the earliest date that we can accommodate the issue.

Thanks again for your flexibility and help.

Sincerely,

Courtney Wilton
Assistant Finance Director

CW/js

c: Bonnie Kraft, Management Services Director

State of Oregon

Department of Environmental Quality Memorandum

Date: May 20, 1992

To: Environmental Quality Commission

From: Fred Hansen

Subject: Twin Rocks Sanitary District - Pump Station Overflow

As you recall, Mr. Newkirk appeared before the Commission at the meeting in Hillsboro to express his concern about a pump station in the Twin Rocks Sanitary District sewerage system which has from time to time caused sewage to back up into his house or overflow into his yard. The Sanitary District has installed a double check valve in his sewer to prevent any backup of sewage into his house. In addition, they had plans to replace the pump station with one of greater capacity. At the time of the last inspection made by Lyle Christensen, who is currently the person assigned to the source in the Northwest Region Water Quality Pilot, there was no evidence of any recent overflows or other problems. There was some equipment at the site which was to be part of the new pump station. Construction had not yet started at the time of that inspection, which was March 17, 1992.

Construction was completed on the pump station by April 21, 1992. The rebuilt pump station has a capacity of almost 5 times that of the old pump station. The storage volume went from 436 gallons to 2080 gallons. The pumping capacity was also increased from 25 gallons per minute for each of two pumps to 65 gallons per minute for each of two pumps. Since the installation of the enlarged pump station, there have been no reported incidents of failure or bypass. Lyle will visit the site, periodically, when he is in the area.

NORTHWEST MINING ASSOCIATION

July 14, 1992

Mr. William W. Wessinger
Chair, Environmental Quality Commission
121 SW Salmon, Suite 1100
Portland, Oregon 97204

SUBJECT: **ODEQ Handling of Third Party Contract**

Dear Mr. Wessinger:

The Northwest Mining Association (NWMA), on behalf of both our members and the Oregon Mining Council (OMC), is compelled to express serious concerns we have regarding a possible conflict of interest on the part of the Oregon Department of Environmental Quality (ODEQ) in its management of the contract between the State and TRC Environmental Consultants (TRC). The potential for this situation has been very high since the third party review the Environmental Quality Commission requested is intended, in part, to assess the appropriateness of certain technical approaches that were recommended to you by the ODEQ staff. Therefore, we recognized that it would be nearly impossible for ODEQ to administer this contract in an objective, neutral manner because, from their perspective, ODEQ's reputation and credibility as an agency could be damaged by a final report that is unfavorable to their positions.

Enclosed for your handling is a copy of a letter with ODEQ comments attached that was sent by Mr. Fred Hanson to TRC ordering certain changes in the draft report. The focus of our concern is the ODEQ direction to TRC to remove certain observations and suggestions that clearly fall within the scope of professional engineering judgement, which is exactly what the EQC requested, that we believe are entirely consistent with both the intent and terms of the contract between the State and TRC. Significantly, the items ordered removed tend to not support certain aspects of the ODEQ regulatory proposal. Especially troublesome is the fact that there is no indication that any member of the EQC was copied or otherwise made aware of the correspondence in question. At the very least, this gives every *appearance* of an attempt by the ODEQ to improperly influence the contents of the final report.

NWMA would appreciate knowing how the EQC views the situation described above. We hope that you will find that the actual circumstances surrounding the ODEQ comments reveal that the tone was unintentional, and look forward to your response in the near future.

Sincerely,

R. K. Urnovitz

R.K. "Ivan" Urnovitz
Government Relations Manager

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUL 16 1992
OFFICE OF THE DIRECTOR

Enclosures

cc: EQC Members, with enclosures
Office of the Governor, with enclosures
John Parks, OMC Chair
Fred Hanson, ODEQ

10 N. POST ST., STE. 414 SPOKANE, WASHINGTON 99201-0772, 509/624-1158, FAX 509/623-1241, KARL W. MOTE, EXECUTIVE DIRECTOR

Oregon

July 2, 1992

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

James M. Beck, P.E.
Manager Hazardous Waste Investigation and Engineering
TRC Environmental Consultants, Inc.
7002 South Revere Parkway, Suite 60
Englewood, CO 80112

Re: Draft Report on Findings on Specific Technical Issues - Proposed Chemical Mining Rules

Dear Mr. Beck:

The Department of Environmental Quality has reviewed the Draft Report and transmits its specific comments in the attachment to this letter. Pursuant to the Contract between TRC and the Department, the final report is due 15 days after receipt of these comments.

Under separate cover, we have already transmitted to you copies of the comments received from others who have reviewed the Draft Report. We urge you to read these comments from others, and to consider and respond to the comments regarding specific sections of your report as you deem appropriate in the preparation of your final report. We are aware that some of the comments deal with matters that are outside the scope of work in this contract and you should not attempt to consider or respond to such comments.

Your draft report deviated from the specific technical questions in the scope of work and inappropriately presented suggestions on policy issues that have been extensively considered and debated by the Commission. As noted in our attached comments, all such policy suggestions must be eliminated from the final report. You are welcome to submit your views on policy issues to the Commission if you choose by letter or separate document. If you do so, we and the Commission will consider them as we would any other commenter — but we will not consider them a part of the work we contracted for nor a formal part of the report. This report, to be consistent with the scope of work in the contract, must present technical information and analysis in response to the questions posed, and be free of recommendations or opinions you may hold which were not a part of the contract or scope of work.

Sincerely,

Fred Hansen
Director

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

FH:l
Attachment

DEQ Comments on TRC Draft Report

These comments will start with Section 2 and end with comments on Section 1.

Section 2

General Comments.

The organization of this section requires the reader to read through a great deal of repetitive material. This makes it easy to get lost and difficult to understand the comparative differences and similarities between liner systems. It would seem easier to assimilate the material if the discussion were reorganized to take one question or evaluation criteria at a time and consider each of the three liners evaluated in a comparative sense. e.g., consider the performance characteristics of the leak detection systems of the three liners in the same section. Then summarize the total evaluation of each liner system at the end.

There is some confusion throughout the section on liners regarding the distinction between the Statement of Commission Policy as presented in the RFP, and the specific performance criteria that are contained in the rule language for the DEQ proposed Triple liner. In some instances, the other liners are evaluated in relation to the specifications in the DEQ proposed rule. Such comparison is helpful in understanding the differences between liners, however, the evaluation also needs to be clearly related to the elements of the EQC policy statement.

References in the text to figure numbers and the actual figures do not match up in all cases (beginning on page 59 with the reference to figure 2-5 which is actually figure 2.6).

Specific Comments

Figure 2-1 c) presents a graphic picture of the alternative candidate liner system. This figure identifies two flexible membrane liners (FML). The narrative description of the liner system in the text only identifies one FML. This needs to be clarified.

Page 15 and subsequent pages in this section -- The leak detection criteria is from the DEQ rule proposal -- not the EQC policy statement. (See general comment above.)

The Commission policy does not specify permeability requirements. The DEQ proposed rules do. (See general comment above.)

Somewhere in the report, it would be helpful to clearly display in a comparative sense the differences between permeability levels of 10^{-7}, 10^{-11}, 10^{-6}, and 10^{-2} with respect to thickness of material and distance that fluid will move in a given period of time. Since the Commission policy statement only specifies that any leak will be detected and that correction and cleanup can occur before there is a release to the environment from the boundary of the last liner, a better understanding of how fast material will move and how far will give the Commission information needed to make the ultimate policy judgment on the specific leak detection and permeability criteria necessary in the rules.

Definitions were provided on page 34 for various terms used for "geo" materials. It would be helpful if this were provided prior to the first significant discussion of these materials which begins shortly after page 15. It would also be helpful to put the definitions in terms that a lay person would better understand and visualize. Examples of typical dimensions or use situations may be helpful.

Page 25 — Some additional clarification or discussion of methods for placement of materials on the top FML so as to prevent puncture would be helpful. References were made on previous pages to "sequenced ore loading" and a properly designed solution recovery system (leachate collection system) placed between the top liner and the ore. Discussion to tie the significance and importance of these items together would be helpful.

Page 29 — In the third paragraph, the second sentence reads: "The leak detection system's permeable material component effectively serves as a liner system component....." This seems to need some clarification.

Page 31 — The report notes the importance of preventing drying of the clay liner until the secondary liner or other appropriate materials can be placed over it to retard loss of moisture. The purpose is to prevent desiccation cracking which adversely affects the overall permeability of the liner. Assuming moisture is maintained until the secondary liner is in place, what is the likelihood of drying and desiccation cracking occurring over an extended period of time? Is there any information available on this issue?

Page 42 — Reference is made in the 5th line down to ...the overlying secondary and underlying bottom liners... It seems in this situation that the "overlying secondary" is really the top or primary liner. The identification of liner components using the terms primary, secondary, top, bottom, is at times not consistent.

Pages 47-49 -- It would be helpful to be more explicit as to how the liner systems are consistent with the EQC policy. (See general comment above.)

Page 65 and Table 2-5 -- The information provided in the table regarding other state requirements for liners presents an obvious question regarding the real difference between permeabilities for liners of 10^{-5}, 10^{-6}, and 10^{-7}. Addressing the earlier comment regarding this issue would help to put some perspective on the differences.

Figure 2-8 -- This figure presents alternative liner configurations that are potentially capable of meeting the EQC policy requirements. The configurations are general, and specifications are minimal. One would assume that there are real differences between these liner configurations with regard to the risk of release, the degree of certainty that they would satisfy the Commission policy, etc. The prior analysis of liner components provides some basis for the reader to make subjective judgments of the relative performance characteristics of these liner configurations. There is insufficient information, however, to leave the reader comfortable that each liner would indeed meet the Commission policy within some limits of certainty. Some further explanation seems appropriate.

Section 3

Pages 80-81 -- All references to avian mortality and WAD cyanide levels should be eliminated from this report. This crosses into policy discussion which is specifically outside the scope of work specified in the contract. Discussion should focus on technology for removal and reuse of cyanide, and the cyanide levels that can be achieved with such technology.

Page 81 DEQ would not agree with the conclusion that "Reuse of cyanide in and of itself would not reduce the immediate or long term toxicity potential..." Reuse would be consistent with the intent of Oregon's Toxic Use Reduction Law. Reuse would reduce the quantity of chemicals transported onto the site during the life of operations, and would therefore reduce the potential for accidental release during transport, storage, handling, etc. If cyanide is removed, but not reused, it would have to go somewhere. The options would appear to be to transport it off site to another location for use or destruction and disposal, or to chemically convert it to a less toxic form for disposal on site. Either option would not be consistent with the Commission policy to reduce the potential for release to the greatest degree practicable.

Page 88 At the end of the page, the statement is made that "Heavy metals are also effectively removed." The term removed is not used consistently in the report. It would seem that removed would apply to "physically separated" and should not be used to refer to alteration of chemical form to a less soluble and less mobile form. If there is actual physical removal of heavy metals, where do they go? How are they to be handled and disposed of?

Page 92 and Section 4 -- Natural degradation should be taken advantage of during the life of the mine, before closure of the heap and tailings pond. Natural degradation is not very controllable or manageable. TRC correctly points out that it should not be considered an effective stand-alone technology.

Section 4

Pages 99-101 Section 4.3

- 4.3.1 - TRC states that a heap can be effectively detoxified.
- 4.3.2 - TRC states that covering would generally be beneficial, reducing water infiltration into the heap, thus inhibiting mobilization of metals, reducing potential for acid formation, and enhancing stability of the heap by reducing the potential for fluid buildup in the heap. TRC notes that a disadvantage of cover would be to reduce the potential for further natural degradation of residual cyanide left in the heap.
- 4.3.3 - TRC states that detoxification will virtually eliminate free and WAD cyanide and will stabilize metal release, and that covering will provide no additional benefit and may in fact be deleterious to the detoxification attributes (provided that the ore does not contain metals or acid generating constituents such as sulfides, in which cases cover may be desirable). TRC further states that cover would generally not be warranted since provisions for drainage of waters from the heap could be implemented to insure that water buildup and stability problems do not occur.

The conclusions in these sections appear inconsistent. If the heap can be effectively detoxified, then the identified disadvantages associated with cover (reduced further natural degradation) would be largely negated, and the positive aspects of cover (reduced infiltration, inhibited mobilization of metals, enhanced stability of the heap) would be realized.

The suggested implementation of drainage of the heap to protect against water buildup (as opposed to cover) implies a potential need for treatment of drainage water, (particularly if detoxification is not uniformly effective throughout the heap) and continued monitoring of drainage water quality after closure. This approach seems inconsistent with the general intent of closure in a manner to reduce the need for ongoing maintenance to zero as soon as practicable, and prevention of the release of potentially toxic chemicals to the environment.

Pages 101-102 Section 4.4

In 4.4.3, TRC states that once detoxified, a cover designed to exclude air and water may provide little, if any quantifiable benefit with respect to toxicity release. The section goes on to note qualifications that the tails do not possess the potential for acid generation, heavy metals species have been removed from the system, and drainage is implemented as necessary to prevent fluid buildup.

We would note that removal of heavy metals species from the tailings is not required by the current rule draft. It would seem that a closed, uncovered tailings facility would present a long term potential for production of leachate drainage that would require maintenance and monitoring, could require treatment, and would likely be inconsistent with the Commission policy regarding release to the environment of toxic chemicals.

Page 104 The conclusions of section 4.5.3 again appear to be based on an assumption that drainage is provided to prevent fluid buildup in the tailings. We have the same comments and concerns as expressed above on this issue.

Section 1

This section presents significant concerns. The conclusions section (1.3) should be deleted from this report in its entirety. If TRC wishes to make policy suggestions to the Commission, it may do so by letter addressed to the Commission. The scope of work in this contract specifically asks for technical response to specific questions and specifies that the consultant is not to cross the line into policy.

The conclusion at the top of page 7 regarding avian mortality should be deleted. It is not appropriate for the scope of work for this contract.

DEQ would recommend that TRC consider deleting the Record of Findings (Section 1.2) and rename Section 1.0 from Executive Summary to Introduction. There is substantial information within the body of the report, and it is virtually impossible to adequately capture it in a few bullets in an executive summary. Further, an attempt to summarize has the risk of crossing the line into policy matters.

Oregon

ENVIRONMENTAL QUALITY COMMISSION

REQUEST FOR EQC ACTION

Meeting Date: June 1, 1992
Agenda Item: G
Division: Water Quality
Section: Municipal Waste

SUBJECT:

Water Quality Permit Fees: Proposed Municipal Fee Increase to Help Fund Municipal Permitting Activities.

PURPOSE:

The proposed rule amendments would increase the annual compliance determination fee, permit processing fee, and would add a new category to assess a fee for technical activities related to permit processing. The fee increases would be used to secure additional revenues necessary to fund municipal permitting activities.

ACTION REQUESTED:

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

___ Authorize Rulemaking Hearing
_X_ Adopt Rules

Proposed Rules	Attachment A
Rulemaking Statements	Attachment B
Fiscal and Economic Impact Statement	Attachment C
Public Notice	Attachment D

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

___ 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 requests that the Commission adopt proposed rules which would increase the annual compliance determination fees, permit application processing fees, and add technical activities fees to be paid by domestic sewage treatment facility permittees (Attachment A). The 1991 Oregon Legislature authorized the Department to increase municipal permit fees by $936,000.

Alternative fee increase proposals were initially prepared by water quality program staff in January and February 1992, and were reviewed by the municipal permit fee advisory committee. On March 13, 1992, the committee adopted a series of recommendations pertaining to the proposals (Attachment G). The committee did not recommend a fee increase. The Department incorporated many of the committee recommendations into a revised proposal. The proposal would increase fees by $630,000 for the 1991-93 biennium. The entire biennium fee would be collected in fiscal year 1993.

The Department mailed hearing notices, fact sheets and other explanatory material, and the proposed fee schedules to all domestic sewage treatment facility permittees and other interested parties on March 21, 1992. A hearing was held at Department Headquarters on April 21, 1992, and the hearing record closed on April 23, 1992. The testimony was summarized and a response to the testimony was prepared (Attachment H). Based on the testimony received the Department reduced the amount of the permit application processing fee schedule from what was proposed originally. Specifically:

1. The proposed processing fees for major municipal permittees were reduced so that they are identical with major industrial permittees.

2. The proposed processing fees for minor municipal permittees which discharge to a surface stream were reduced so that they are identical with minor industrial permittees.

3. The proposed processing fees for minor municipal permittees with non-overflow lagoon treatment systems and for private domestic facilities with on-site treatment and disposal were also reduced and are now lower than proposed fees for other minor facility permittees.

The proposed fee schedules are described in Attachment I. Major features of the proposed schedules include:

1. Permit Application Processing Fees. Permit application processing fees are increased. Currently these fees produce about $25,000 in revenue annually. The proposed fee schedule would produce approximately $175,000 in revenues annually, an increase of $150,000.

2. Annual Compliance Determination Fees. Annual fees are increased. Current fees for sludge, pretreatment, groundwater, and the Tualatin Basin special fee were not changed. The entire fee increase was based on treatment facility flow, population served by the treatment facility, and a fixed fee for each facility of $350 per year. The annual compliance determination fee schedule would produce approximately $1,405,000 in revenues, an increase of $350,000.

3. Technical Activities Fee. The Department is proposing to add a new fee category to help pay for engineering and other technical analyses associated with new permit applications, renewals and modifications. The proposed fee schedule will generate about $110,000 annually in revenues. (The fee initiation was the direct result of the recommendations of the advisory committee; a recommended strategy aimed at reducing the size of the necessary increase in processing and compliance determination fee categories.)

The proposed rule amendments will result in fee revenues of approximately $1,690,000 annually, an increase of an estimated $610,000 over anticipated revenues from the existing fee schedules.

AUTHORITY/NEED FOR ACTION:

___	Required by Statute: _____ Enactment Date: _____	Attachment ___
_X_	Statutory Authority: ORS 468.065	Attachment E
___	Pursuant to Rule: _____	Attachment ___
___	Pursuant to Federal Law/Rule: _____	Attachment ___
_X_	Other: Amendment to Existing Rule OAR 340-45-075	Attachment F

_X_ Time Constraints: It is important for the proposed rule amendments to be in effect by July 1, 1992, so that invoicing for the annual compliance determination fees can reflect the new fee schedule.

DEVELOPMENTAL BACKGROUND:

_X_	Advisory Committee Report/Recommendation	Attachment G
_X_	Hearing Officer's Report/Recommendations	Attachment H
_X_	Response to Testimony/Comments	Attachment H
___	Prior EQC Agenda Items: (list)	Attachment ___
___	Other Related Reports/Rules/Statutes:	Attachment ___
_X_	Supplemental Background Information	Attachment I

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

As presented in the Hearing Officer's Report (Attachment H) many objections were raised to the proposed fee schedules distributed prior to the public hearing. Significant issues and concerns included the financial impact of increased fees on small systems, concern that the Department lacks an adequate accounting system, concern that the fee proposal is not justified, expressions of financial duress experienced by many communities, statements that the fees charged to municipal permittees are not equitable compared to industrial permittees, concern about equity in the proposed fee classification structure, and concern that municipal fee advisory committee recommendations were not followed in their entirety. Attachment H includes a response to the public testimony. The Department has responded to many of the concerns expressed as follows:

1. The proposed permit application processing fees for major domestic facilities were reduced to be identical to current fees for major industrial facilities.

2. The proposed permit application processing fees for minor domestic facilities with an effluent discharge to a stream were reduced to be identical with current fees for minor industrial facilities.

3. The proposed permit application processing fees for minor domestic facilities operating under a Water Pollution Control Facilities permit (lagoons which do not discharge and small facilities utilizing on-site wastewater treatment and disposal) were substantially reduced. The proposed new fees for these facilities are

about one-half of the fees proposed for minor facilities with an effluent discharge to a stream. The proposed technical activities fees for review of new or substantially modified facilities utilizing on-site wastewater treatment and disposal were also reduced.

4. In response to the recommendations of our advisory committee and a number of public commenters the Department proposes to form a municipal waste treatment task force in the near future. The charge of this task force will be to work with Department staff to improve reporting and formatting of information regarding the time and associated costs for performing many of the disparate tasks for our municipal permit work. In addition, the task force will be charged with reviewing the fee structure to ensure equity and fairness in fee schedules. At the completion of the task force work, a report will be prepared with recommendations for improvements in reporting of work activity and in maintaining equity and fairness in fee schedules. The report will be presented to the Commission for review and approval no later than June 1993.

The municipal fee advisory committee adopted several recommendations in response to Department fee increase proposals (see Attachment G and Attachment H, item 5, testimony of the committee chair). Committee recommendations which have now been incorporated in the revised fee schedules include:

1. Do not increase current annual compliance fees for sludge, pretreatment, groundwater and special charges for Department activities in the Tualatin Basin.

2. If the Department proposes fee increases, then allocate the increase in annual compliance determination fees to a flow component, population component, and a fixed fee component. Set the fees such that the revenues from the components are approximately the same.

3. If fee increases are proposed, increase permit application processing fees so that fees for municipal and industrial permittees are comparable.

4. Add a fee category for technical activities such as engineering plan review.

5. Respond to the Governor's directive to review and utilize unexpended funds before seeking additional funds.

Committee recommendations which were not incorporated in the revised fee schedules include:

1. Do not propose a fee increase at this time.

2. If a fee increase is proposed, do not include cost increases associated with existing staff.

3. If a fee increase is proposed, do not increase fees to cover Department costs for the first year of the biennium.

4. Develop a program to secure revenue related to nonpoint source contributions (although this issue may well be addressed by the Legislature).

5. Develop and adopt an incentive program (relate fees to performance).

6. Include a "sunset" clause which limits the fee increase to fiscal year 1993. As discussed above, the Department does recommend formation of a municipal fee advisory task force to review concerns regarding the proposed fees and to require reporting and action by the Commission on this information.

The water quality program staff assessed the impact of the proposed fee increases, and concluded that the increases should not result in financial distress to Oregon communities. Although the fees may vary between communities to some degree, the average cost per person to fund the fee increases is about 25 cents per year.

PROGRAM CONSIDERATIONS:

The legislatively approved budget for the 1991-93 biennium allows the Department to generate municipal permit fee revenues of $2,016,000 for the biennium, an increase of $936,000. The approved budget authorizes the Department to add four new positions and to pay for existing staff. The fee schedules proposed for adoption will generate about $610,000 for the biennium, approximately $320,000 less than authorized.

The proposed fee schedules will allow the water quality program to process new permits, permit renewals and permit modifications on a timely schedule, and will allow the program staff to entirely eliminate the backlog in major facilities permits. The proposed fee schedules will also

allow staff to perform necessary annual compliance inspections and to perform all essential compliance determination activities. The proposed fee schedules, as a result of the decreases we have made from our original proposal, will **not** allow the water quality program to fill two of the four additional positions authorized by the Legislature. Consequently, the minor facilities permit backlog will be reduced somewhat but not eliminated, and compliance determination activities will be limited only to those activities considered essential.

The terms of the current State/EPA agreement require the Department to eliminate the backlog of major municipal permits by June 30, 1993. In addition, the Legislature has directed the Department to eliminate the substantial backlog in minor facility NPDES permits by June 1993. If the proposed fee schedule is approved, the Department will be able to meet its commitment to EPA by September 30, 1992 (though not by the originally scheduled date of June 30). However, it is unlikely that the Department will be able to completely eliminate the backlog in minor NPDES permits with this reduced fee schedule.

If the proposed fee schedule is not adopted the current permit backlog will increase and compliance activities will be substantially curtailed. Commitments made to the 1991 Legislature and to EPA will not be met.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. The Department considered increasing municipal permit fees to generate revenues by the legislatively authorized amount of $936,000 for the biennium.

2. The Department considered increasing compliance determination fees only, leaving permit processing fees at current levels and not considering new fee categories.

3. The Department considered increasing municipal permit fees to generate $610,000 in revenues, and modifying the fee schedules to allocate this increase to permit processing, annual compliance determination, and to add a new fee category to cover the costs of technical activities related to permit processing.

4. The Department considered forming a municipal waste treatment task force to work with Department staff to improve reporting and formatting of information regarding the time and associated costs for performing

municipal permit work, and to review the fee structure to ensure equity and fairness in fee schedules. The Department also considered requesting that the Commission require a report for Commission review and approval by June 1993.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends the proposed rule amendments be adopted as proposed in Alternative 3 and the direction to the Department contained in Alternative 4 also be adopted. These alternatives will generate $610,000 in revenues for the 1991-93 biennium, and will spread the fee increases over three fee categories: permit processing, annual compliance determination, and technical activities related to permit processing. The amount of funds generated would result in increased work effort in all phases of permit related activity. In addition, many advisory committee and regulated community recommendations are incorporated in these alternatives.

Alternative 1, increase fees by the legislatively authorized amount, was rejected on the basis that both advisory committee and public hearing commenters requested that costs be cut whenever possible and that the proposed fee schedules be reduced. Alternative 2, increase only annual compliance determination fees, was also rejected on the basis of recommendations made by the advisory committee and public hearing commenters. Both recommended creation of a new category of fees to cover technical activities. In this fashion, they suggested those who were receiving disproportionately large amounts work effort associated with permit processing (principally in the review of new facilities or major modifications) would be paying their fair share.

Alternative 4 also recommends that the Commission require Department staff to present a report and recommendations of a municipal fee advisory task force, and that the Commission take action on these recommendations by June 1993. The Department further recommends that no further municipal waste treatment fee increases be enacted by the Commission until the Commission has had an opportunity to review the report and recommendations and make any appropriate adjustments. It is expected, however, that municipal fee issues will be a part of the Legislature's consideration of the Department's budget in the 1993 Session.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The proposed changes in the municipal permit fee schedule are consistent with agency's strategic plan direction, agency policies and legislative policy.

Approved:

Section: Barbara A. Burton

Division:

Director: Jeff Harris

Report Prepared By: Thomas J. Lucas

Phone: 229-5065

Date Prepared: May 10, 1992

MW\WC10\WC10148

ATTACHMENT A

PERMIT FEE SCHEDULE

WASTEWATER DISPOSAL PERMITS

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.

*The portions of the text which are underlined and ~~[bracketed]~~ in **bold italics** are additions and deletions to the draft rules made in response to public comment.*

PERMIT FEE SCHEDULE

340-45-075

(1) **Filing Fee.** Unless waived by this rule, a filing fee of $50 shall accompany any application for issuance, renewal, modification, or transfer of an NPDES permit or WPCF permit, including registration for a General Permit pursuant to OAR 340-45-033 and request for a Special Permit pursuant to OAR 340-14-050. This fee is non-refundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed. The following filing fees are waived:

(a) Small gold mining suction dredges with an intake hose diameter of 4 inches or less.

(b) Small gold mining operations which qualify for General Permit 600, and which can process no more than 5 cubic yards of material per day.

(2) **Application Processing Fee.** An application processing fee shall be submitted with each application. The amount of the fee shall depend on the type of facility and the required action as follows:

(a) New Applications:

(A)	Major industries[1]	$20,000
(B)	Minor industries	$ 4,000
(C)	Major domestic[2]	~~[$-1,500]~~ **$20,000**
(D)	Minor domestic[3]	~~[$---600]~~
	(i) Categories Da, Db.	**$ 4,000**
	(ii) Categories E, F, G	**$ 2,000**
(E)	Agricultural	$ 4,000

(b) Permit Renewals (including request for effluent limit modification):

(A)	Major industries[1]	$10,000
(B)	Minor industries	$ 2,000
(C)	Major domestic[2] ~~[$---750]~~	***$10,000***
(D)	Minor domestic[3] ~~[$---300]~~	
	(i) Categories Da, Db.	***$ 2,000***
	(ii) Categories E, F, G	***$ 1,000***
(E)	Agricultural	$ 2,000

(c) Permit Renewals (without request for effluent limit modification):

(A)	Major industries[1]	$ 5,000
(B)	Minor industries	$ 750
(C)	Major domestic[2] ~~[$---500]~~	$ 5,000
(D)	Minor domestic[3] ~~[$---200]~~	
	(i) Categories Da, Db.	***$ 750***
	(ii) Categories E, F, G	***$ 500***
(E)	Agricultural	$ 750

(d) Permit Modifications (involving increase in effluent limitations):

(A)	Major industries[1]	$10,000
(B)	Minor industries	$ 2,000
(C)	Major domestic[2] ~~[$---750]~~	***$10,000***
(D)	Minor domestic[3] ~~[$---300]~~	
	(i) Categories Da, Db.	***$ 2,000***
	(ii) Categories E, F, G	***$ 1,000***
(E)	Agricultural	$ 2,000

(e) Permit Modifications (not involving an increase in effluent limits): All categories . . . . . $ 500

(f) Special Permits issued pursuant to OAR 340-14-050 . . . . . $ 250

(g) New General Permits, by permit number:

(A)	100, 400, 500, 600 (over 1500 cubic yards per year), 900, 1000	$ 50
(B)	200, 300, 1300, 1400, 1500, 1600.	$ 100
(C)	1200	$ 150

(3) Technical Activities Fee. [4] All permittees shall pay a fee for NPDES and WPCF permit-related technical activities, as follows:

(a) New or substantially modified sewage treatment facility . . . . . $ 4,600

(b) Minor sewage treatment facility modifications and pump stations . . . . . $ 500

(c) Pressure sewer system, or major sewer collection system expansion . . . . . $ 350

(d) Minor sewer collection system expansion or modification . . . . . $ 100

(e) New or substantially modified water pollution control facilities utilizing on-site wastewater treatment and disposal . . . . . $ *500*

~~[(3)]~~ (4) Annual Compliance Determination Fee Schedule:

(a) Domestic Waste Sources -- Initial and Annual Fee is based on Dry Weather Design Flow, **Population Served by Facility,** Type of Facility and Applicable Special Fees as follows:

Category		**Fees**
(A_1)	Sewage Disposal - 50 MGD or more	~~[20,860]~~ **$42,410**
(A_2)	Sewage Disposal - At least 25 MGD but less than 50 MGD	~~[$14,110]~~ **$24,510**
(A_3)	Sewage Disposal - At least 10 MGD but less than 50 MGD	~~[$-6,610]~~ **$11,020**
(B_a)	Sewage Disposal - At least 5 MGD but less than 10 MGD	~~[$-5,010]~~ **$ 6,700**
(B_b)	Sewage Disposal - At least 5 MGD but less than 10 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	~~[$-5,010]~~ **$ 3,070**
(C_{1a})	Sewage Disposal - At least 2 MGD but less than 5 MGD.	~~[$-3,285]~~ **$ 4,175**
($C1_b$)	Sewage Disposal - At least 2 MGD but less than 5 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	~~[$---935]~~ **$ 1,825**
(C_{2a})	Sewage Disposal - At least 1 MGD but less than 2 MGD	~~[$-2,210]~~ **$ 2,510**
(C_{2b})	Sewage Disposal - At least 1 MGD but less than 2 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	~~[$---845]~~ **$ 1,060**
(D_a)	Sewage Disposal - Less than 1 MGD, and not otherwise categorized under Categories E, F, or G	~~[$---755]~~ **$ 955**
(D_b)	Sewage Disposal - Less than 1 MGD - Systems where treatment occurs in lagoons that discharge to surface waters which are not otherwise categorized under Categories E, F, or G	~~[$---450]~~ **$ 625**

(E) Sewage Disposal - Systems where treatment is limited to lagoons which do not discharge to surface waters . . . . . [~~$---250~~] $ 600

(F) Sewage Disposal - Systems larger than 20,000 gallons per day which dispose of treated effluent via subsurface means only . . . . . [~~$---260~~] $ 465

(G) Sewage Disposal - Systems less than 20,000 gallons per day which dispose of treated effluent via subsurface means only and other systems required by OAR 340, Division 71 to have a Water Pollution Control Facilities (WPCF) permit . . . . [~~$---185~~] $ 440

[~~(H1)~~] **(H)** Sources determined by the Department to administer a pretreatment program pursuant to federal pretreatment program regulations (40 CFR, Part 403; January 28, 1981) shall pay an additional $1,000 per year plus $335 for each significant industrial user specified in their annual report for the previous year.

(I) Population Based Fee - All permittees shall pay an annual fee computed as follows: population served by the facility multiplied by a rate of 0.08038.

[~~(H2)~~] **(J)** In addition to applicable fees specified above, special Annual Compliance Fees for Tualatin Basin Pollution Abatement Activities will be applied to the following permittees until Fiscal Year 1998:

Unified Sewerage Agency - Durham	$26,720
Unified Sewerage Agency - Rock Creek	$22,995
Unified Sewerage Agency - Forest Grove	$ 5,450
Unified Sewerage Agency - Hillsboro	$ 4,240
Unified Sewerage Agency - Banks	$ 185
City of Portland - Tryon Creek	$ 910

(b) Industrial, Commercial and Agricultural Sources (Source and Initial and Annual Fee):

(For multiple sources on one application select only the one with highest fee)

(A) Major pulp, paper, paperboard, hardboard, and other fiber pulping industry . . . . . $ 6,000

(B) Major sugar beet processing, potato and other vegetable processing, and fruit processing industry . . . . . $ 6,000

(C) Seafood Processing Industry:

(i) Bottom fish, crab, and/or oyster processing . . . . . $ 675

(ii) Shrimp processing . . . . . $ 675

(iii) Salmon and/or tuna processing . . . . . $ 1,200

(D) Electroplating industry (excludes facilities which do anodizing only):

(i) Rectifier output capacity of 15,000 Amps or more . . . . . $ 6,000

(ii) Rectifier output capacity of less than 15,000 Amps but more than 5000 Amps . . . . . $ 3,000

(E) Primary Aluminum Smelting . . . . . $ 6,000

(F) Primary smelting and/or refining of non-ferrous metals utilizing sand chlorination separation facilities . . . . . $ 6,000

(G) Primary smelting and/or refining of ferrous and non-ferrous metals not elsewhere classified above . . . . . $ 3,000

(H) Alkalies, chlorine, pesticide, or fertilizer manufacturing with discharge of process waste waters . . . . . $ 6,000

(I) Petroleum refineries with a capacity in excess of 15,000 barrels per day discharging process waste water . . . . . $ 6,000

(J) Cooling water discharges in excess of 20,000 BTU/sec . . . . . $ 3,000

(K) Milk products processing industry which processes in excess of 250,000 pounds of milk per day . . . . . $ 6,000

(L) Major mining operations (over 500,000 cubic yards per year) . . . . . $ 6,000

(M) Minor mining and/or processing operations:

(i) Medium (100,000 to 500,000 cubic yards per year) mechanical processing . . . . . $ 2,000

(ii) Medium using froth flotation . . . . . $ 3,000

(iii) Medium using chemical leaching . . . . . $ 4,000

(iv) Small (less than 100,000 cubic yards per year) mechanical processing . . . . . $ 500

(v) Small using froth flotation . . . . . $ 1,000

(vi) Small using chemical leaching . . . . . $ 2,000

(N)	All facilities not elsewhere classified with disposal of process waste water	$ 1,200
(O)	All facilities not elsewhere classified which dispose of non-process waste waters (i.e., small cooling water discharges, boiler blowdown, filter backwash, log ponds, etc,)	$ 750
(P)	Dairies and other confined feeding operations on individual permits	$ 450
(Q)	All facilities which dispose of waste waters only by evaporation from watertight ponds or basins	$ 450
(R)	General permits 100-J, 200-J, 400-J, 500-J, 1000	$ 100
(S)	General permit 300-J	$ 100
(T)	General permits 900-J, 1200-J, 1300-J, 1400, 1500-J, 1600	$ 100

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1 *Major Industries Qualifying Factors:*

-1- Discharges large BOD loads; or
-2- Is a large metals facility; or
-3- Has significant toxic discharges; or
-4- Has a treatment system which, if not operated properly, will have a significant adverse impact on the receiving stream; or
-5- Any other industry which the Department determines needs special regulatory control.

2 *Major Domestic Qualifying Factors:*

-1- Serving more than 10,000 people; or
-2- Serving industries which can have a significant impact on the treatment system.

3 *Minor Domestic Qualifying Factors:*

-1- Do not meet major domestic qualifying factors;
-2- Categories Da, Db discharge to surface waters;
-3- Categories E, F, G do not discharge to surface waters, and are under Water Pollution Control Facilities (WPCF) Permit.

4 *Technical Activities Fee Qualifying Factors:*

-1- Fee charged for initial submittal of engineering plans and specifications;
-2- Fee not charged for revisions and resubmittals of engineering plans and specifications;
-3- Fee not charged for facilities plans, design studies, reports change orders or inspections.

STATEMENT OF NEED FOR RULEMAKING

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

(1) **Legal Authority**

Oregon Revised Statutes (ORS) 468.065 authorizes the Department to adopt permit and compliance fees by rule. The fees are to 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.

(2) **Need for the Rule**

The current permit fee schedule, which was adopted pursuant to ORS 468.065, does not generate sufficient funds to meet the revenue requirements of the Legislatively Adopted Budget for the 1991-93 biennium. To produce additional revenues for the biennium, domestic waste permit fees must be increased substantially. If the fees are not increased then the water quality program cannot maintain sufficient staff to properly and promptly evaluate and issue or deny domestic waste treatment permits.

(3) **Principal Documents Relied Upon in this Rulemaking**

Oregon Revised Statutes 468.065 Issuance of permits; content; fees; use.

Oregon Administrative Rules 340-45-070 Permit Fees.

Oregon Administrative Rules 340-45-075 Permit Fee Schedule.

These documents are available for review during normal business hours at the Department's office, 811 SW Sixth Avenue, Portland, Oregon.

FISCAL AND ECONOMIC IMPACT

1. **Municipalities such as cities, service districts and sanitary districts.**

The proposed fee increases will affect municipalities which have domestic waste discharge permits. Fees will be substantially increased for application processing and for annual compliance determination, and a new fee category will be added for permit related technical activities. The proposed fee increases will generate an additional revenue of about $610,000 during fiscal year 1993.

Most of the fee increases will be paid by municipalities. The fees, however, will be spread over all domestic waste treatment facilities statewide. For this reason, the impact on individual municipalities should be small. In some communities the impact will be on the sewerage facilities part of the public works department. If the fee increase is paid for out of public works department funds, there could be some curtailment of activity. Municipalities have the option of paying for the fee increases by increasing user charges to residential, commercial and industrial customers. If the fees are spread over the entire municipal rate base, the impact on the individual customer should be quite small. For example, the new fee schedules are not expected to increase household user charges on the average by more than $1.00/year.

The proposed fee schedules do not increase fees for regulatory activities pertaining to sludge, pretreatment and groundwater quality protection. The proposed fee schedules will be beneficial to municipalities insofar as the fees will pay for essential permitting activities. These fees will allow the Department to more quickly evaluate new applications and to renew existing permits more quickly than is now possible with current fee revenues. The fees also support compliance activities, and technical assistance such as operator training.

2. **Small Business.**

The fee schedules will increase fees for small businesses with permitted domestic waste treatment facilities. Most of these are small septic tank and drainfield treatment systems for mobile home parks and resort properties. The current annual compliance determination fee for these facilities ranges from $185 to $250 per year. The proposed fee schedules will increase annual compliance fees for these facilities by about $300 per year for an annual total of approximately $450. Permit renewal fees for these facilities generally will increase from $200 to $500 on a five year basis, and there will be additional charges if substantial modifications to the treatment facility are proposed. The impact of these fee increases will vary depending on the number of customers using the facilities.

Small businesses that discharge waste to community collection and treatment systems may also pay higher user charges. The increase will depend on the procedure that each municipality chooses to allocate the increased fees to customers within the municipality. If municipalities choose to spread any fee increase to the entire rate base, the fee increase to an individual small business should be minimal.

3. **Large Business.**

Large businesses either discharge to a municipal sewerage system or are covered by an industrial waste permit. The proposed fee schedule applies only to domestic waste treatment facilities. Large businesses which discharge to municipal sewers can expect user charge increases to help pay for a fee increase. The increase will depend on the procedure that each municipality chooses to allocate the increased fees to customers within the municipality. Generally, the user charge increase to a large business will depend on the quantity of flow and the waste strength. If municipalities choose to spread any fee increase to the entire rate base, the fee increase to an individual large business should be small.

4. **Other State Agencies.**

The proposed fee schedule will not have a significant impact on state agencies. Only a few state agencies now have facilities with separate domestic treatment systems which require a permit. The fee now charged to these facilities ranges from $185 to $250 per year. The new fee schedule will increase these fees by about $300 per year.

Oregon Department of Environmental Quality

Attachment D

A CHANCE TO COMMENT ON...

REVISION OF WATER QUALITY PERMIT FEE SCHEDULE FOR DOMESTIC WASTEWATER FACILITIES PERMITTEES

Hearing Date: 4-21-92
Comments Due: 4-23-92

WHO IS AFFECTED:

All domestic sewage treatment facilities regulated under National Pollutant Elimination System (NPDES) or Water Pollution Control Facilities (WPCF) permits issued by the Department of Environmental Quality.

WHAT IS PROPOSED:

The Department is proposing to amend OAR 340-45-075 Permit Fee Schedule in accordance with the budget authorized by the 1991 Legislature for the Department of Environmental Quality.

WHAT ARE THE HIGHLIGHTS:

Under the proposal, permit application processing fees and annual compliance determination fees would be substantially increased. The annual compliance determination fees will include a fee category for population served by the sewage disposal system. A supplemental fee to be applied during fiscal year 1993 is added to the annual compliance determination fee. In addition a new fee category for permit related technical activities is added to the permit fee schedule. The proposed rule amendments would generate an additional revenue of $630,000 in fiscal year 1993. (See attached fact sheet for a description of the proposed water quality permit fee amendments.)

HOW TO COMMENT:

Copies of the complete proposed rule package may be obtained from the Water Quality Division in Portland (811 SW Sixth Avenue) or the regional office nearest you. For further information contact Tom Lucas at 229-5065.

OVER

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.

A public hearing will be held before a hearings officer at the following time and location:

April 21, 1992
9:00 am - 1 pm
Department of Environmental Quality
Conference Room 10A
811 SW 6th Avenue
Portland, Oregon

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ, Water Quality Division, 811 SW 6th Avenue, Portland, Oregon 97204, but must be received by no later than 5:00 pm, April 23, 1993.

WHAT IS THE NEXT STEP:

The Environmental Quality Commission may adopt rule amendments identical to the ones proposed, adopt modified rules as a result of testimony received, or may decline to adopt rules. The Commission will consider the proposed rule amendments at its June 1, 1992 meeting.

Attachments: Summary Sheet
Location of Regional Offices

DEQ OFFICE LOCATIONS WHERE DOCUMENTS CAN BE VIEWED AND COPIED

HEADQUARTERS OFFICE
811 SW Sixth Avenue
Portland, OR 97204

EASTERN REGION OFFICE
700 SE Emigrant, Suite 330
Pendleton, OR 97801

CENTRAL REGION OFFICE
2146 NE 4TH
Bend, OR 97701

NORTHWEST REGION OFFICE
(Prior to March 30, 1992)
811 SW Sixth
Portland, OR 97204

(After March 30, 1992)
1500 SW First Avenu, Suite 750
Portland, OR 97201

ASTORIA BRANCH OFFICE
Clatsop County Courthouse
749 Commercial
Astoria, OR 97103

WILLAMETTE VALLEY REGION OFFICE
750 Front Street, NE, Suite 120
Salem, OR 97310

SOUTHWEST REGION OFFICE
201 West Main Street, Suite 2-D
Medford, OR 97501

ROSEBURG BRANCH OFFICE
1937 West Harvard Blvd.
Roseburg, OR 97470

GRANTS PASS BRANCH OFFICE
510 NW 4th, Room 76
Grants Pass, OR 97526

COOS BAY BRANCH OFFICE
340 N. Front Street
Coos Bay, OR 97420

of the deputy director shall be by written order, filed with the Secretary of State.

(2) The deputy director shall receive such salary as may be provided by law or, if not so provided, as may be fixed by the director, and shall be reimbursed for all expenses actually and necessarily incurred by the deputy director in the performance of the official duties of the deputy director. [1973 c.291 §2]

Note: 468.050 was enacted into law by the Legislative Assembly but was not added to or made a part of ORS chapter 468 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

468.055 Contracts with Health Division. In addition to the authority granted under ORS 190.003 to 190.110, when authorized by the commission and the Health Division, the director and the Assistant Director for Health may contract on behalf of their respective agencies for the purposes of carrying out the functions of either agency, defining areas of responsibility, furnishing services or employees by one to the other and generally providing cooperative action in the interests of public health and the quality of the environment in Oregon. Each contracting agency is directed to maintain liaison with the other and to cooperate with the other in all matters of joint concern or interest. [Formerly 449.062]

468.060 Enforcement of rules by health agencies. On its own motion after public hearing, the commission may grant specific authorization to the Health Division or to any county, district or city board of health to enforce any rule of the commission relating to air or water pollution or solid wastes. [Formerly 449.064]

468.065 Issuance of permits; content; fees; use. Subject to any specific requirements imposed by ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and ORS chapters 468, 468A and 468B:

(1) Applications for all permits authorized or required by ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and ORS chapters 468, 468A and 468B 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 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and ORS chapters 468, 468A and 468B.

(2) By rule and after hearing, the commission may establish a schedule of fees for permits issued pursuant to ORS 468A.040, 468A.045, 468A.155 and 468B.050. Except as provided in ORS 468A.315, the 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 fee shall accompany the application for the permit. The fees for a permit issued under ORS 468B.050 may be imposed on an annual basis.

(3) An applicant for certification of a project under ORS 468B.040 or 468B.045 shall pay as a fee all expenses incurred by the commission and department related to the review and decision of the director and commission. These expenses may include legal expenses, expenses incurred in processing and evaluating the application, issuing or denying certification and expenses of commissioning an independent study by a contractor of any aspect of the proposed project. These expenses shall not include the costs incurred in defending a decision of either the director or the commission against appeals or legal challenges. Every applicant for certification shall submit to the department a fee at the same time as the application for certification is filed. The fee for a new project shall be $5,000, and the fee for an existing project needing relicense shall be $3,000. To the extent possible, the full cost of the investigation shall be paid from the application fee paid under this section. However, if the costs exceed the fee, the applicant shall pay any excess costs shown in an itemized statement prepared by the department. In no event shall the department incur expenses to be borne by the applicant in excess of 110 percent of the fee initially paid without prior notification to the applicant. In no event shall the total fee exceed $40,000 for a new project or $30,000 for an existing project needing relicense. If the costs are less than the initial fee paid, the excess shall be refunded to the applicant.

(4) 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.

(5) The department may require periodic reports from persons who hold permits under ORS 448.305, 454.010 to 454.040, 454.205 to 454.225, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and ORS chapters 468, 468A and 468B. 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.

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Permit Fees

340-45-070 (1) Beginning July 1, 1976, all persons required to have a Water Pollution Control Facilities Permit or NPDES Waste Discharge Permit shall be subject to a three-part fee consisting of a uniform non-refundable filing fee, an application processing fee, and an annual compliance determination fee which are obtained from OAR 340-45-075. The amount equal to the filing fee, application processing fee, and the first year's annual compliance determination fee shall be submitted as a required part of any application for a new NPDES or WPCF permit. The amount equal to the filing fee and application processing fee, if applicable, shall be submitted as a required part of any application for renewal or modification of a NPDES or WPCF permit.

(2) The annual compliance determination fee, as listed in OAR 340-45-075(3), must be paid for each year a disposal system is in operation or during which a discharge to public waters occurs. The fee period shall correspond with the state's fiscal year (July 1 through June 30) and shall be paid annually during the month of July. Any annual compliance determination fee submitted as part of an application for a new NPDES or WPCF permit shall apply to the fiscal year the permitted facility is put into operation. For the first year's operation, the full fee shall apply if the facility is placed into operation on or before May 1. Any new facility placed into operation after May 1 shall not owe a compliance determination fee until the following July. The Director may alter the due date for the annual compliance determination fee upon receipt of a justifiable request from a permittee. The Commission may reduce or suspend the annual compliance determination fee in the event of a proven hardship.

(3) Modifications of existing, unexpired permits which are instituted by the Department due to changing conditions or standards, receipts of additional information or any other reason pursuant to applicable statutes and do not require refiling or review of an application or plans and specifications shall not require submission of the filing fee or the application processing fee.

(4) Upon the Department accepting an application for filing, the filing fee shall be non-refundable.

(5) The application processing fee may be refunded in whole or in part when submitted with an application if either of the following conditions exist:

(a) The Department determines that no permit will be required;

(b) The Department determines that the wrong application has been filed.

(6) All fees shall be made payable to the Department of Environmental Quality.

Stat. Auth.: ORS Ch. 468
Hist.: DEQ 113, f. & ef. 5-10-76; DEQ 129, f. & ef. 3-16-77; DEQ 31-1979, f. & ef. 10-1-79; DEQ 18-1981, f. & ef. 7-13-81; DEQ 12-1983, f. & ef. 6-2-83

Permit Fee Schedule

340-45-075 (1) Filing Fee. Unless waived by this rule, a filing fee of $50 shall accompany any application for issuance, renewal, modification, or transfer of an NPDES permit or WPCF permit, including registration for a General Permit pursuant to OAR 340-45-033 and request for a Special Permit pursuant to OAR 340-14-050. This fee is non-refundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed. The following filing fees are waived:

(a) Small gold mining suction dredges with an intake hose diameter of 4 inches or less;

(b) Small gold mining operations which qualify for General Permit 600, and which can process no more than 5 cubic yards of material per day.

(2) Application Processing Fee. An application processing fee shall be submitted with each application. The amount of the fee shall depend on the type of facility and the required action as follows:

(a) New Applications:
(A) Major industries[1] $20,000
(B) Minor industries ..... $ 4,000
(C) Major domestic[2] ..... $ 1,500
(D) Minor domestic ..... $ 600
(E) Agricultural ..... $ 4,000

(b) Permit Renewals (including request for effluent limit modification):
(A) Major industries[1] $10,000
(B) Minor industries ..... $ 2,000
(C) Major domestic[2] ..... $ 750
(D) Minor Domestic ..... $ 300
(E) Agricultural ..... $ 2,000

(c) Permit Renewals (without request for effluent limit modification):
(A) Major industrie$[1] ..... $ 5,000
(B) Minor industries ..... $ 750
(C) Major domestic[2] ..... $ 500
(D) Minor domestic ..... $ 200
(E) Agricultural ..... $ 750

(d) Permit Modifications (involving increase in effluent limitations):
(A) Major industries[1] $10,000
(B) Minor industries ..... $ 2,000
(C) Major domestic[2] ..... $ 750
(D) Minor domestic ..... $ 300
(E) Agricultural ..... $ 2,000

(e) Permit Modifications (not involving an increase in effluent limits): All categories .... $ 500

(f) Special Permits issued pursuant to OAR 340-14-050 ..... $ 250

(g) New General Permits, by permit number:
(A) 100, 400, 500, 600 (over 1500 cubic yards per year), 900, 1000 ..... $ 50
(B) 200, 300, 1300, 1400, 1500, 1600 ..... $ 100
(C) 1200 ..... $ 150

(3) Annual Compliance Determination Fee Schedule:

(a) Domestic Waste Sources — Initial and Annual Fee is based on Dry Weather Design Flow, Type of Facility and Applicable Special Fees as follows:

	Fees
(A_1) Sewage Disposal — 50 MGD or more	$20,860
(A_2) Sewage Disposal — At least 25 MGD but less than 50 MGD	$14,110
(A_3) Sewage Disposal — At least 10 MGD but less than 50 MGD	$ 6,610
(B_a) Sewage Disposal — At least 5 MGD but less than 10 MGD	$ 5,010

(B_b) Sewage Disposal — At least 5 MGD but less than 10 MGD — Systems where treatment occurs in lagoons that discharge to surface waters ..... $ 5,010
(C_{1a}) Sewage Disposal — At least 2 MGD but less than 5 MGD ..... $ 3,285
(A_1) Sewage Disposal — 50 MGD or more $20,860
(C_{1b}) Sewage Disposal — At least 2 MGD but less than 5 MGD — Systems where treatment occurs in lagoons that discharge to surface waters ..... $ 935
(C_{2a}) Sewage Disposal — At least 1 MGD but less than 2 MGD ..... $ 2,210
(C_{2b}) Sewage Disposal — At least 1 MGD but less than 2 MGD — Systems where treatment occurs in lagoons that discharge to surface waters ..... $ 845
(D_a) Sewage Disposal — Less than 1 MGD, and not otherwise categorized under Categories E, F, or G ..... $ 755
(D_b) Sewage Disposal — Less than 1 MGD — Systems where treatment occurs in lagoons that discharge to surface waters which are not otherwise categorized under Categories E, F, or G ..... $ 450
(E) Sewage Disposal — Systems where treatment is limited to lagoons which do not discharge to surface waters ..... $ 250
(F) Sewage Disposal — Systems larger than 20,000 gallons per day which dispose of treated effluent via subsurface means only ..... $ 260
(G) Sewage Disposal — Systems less than 20,000 gallons per day which dispose of treated effluent via subsurface means only and other systems required by OAR 340, Division 71 to have a Water Pollution Control Facilities (WPCF) permit ..... $ 185
(H_1) Sources determined by the Department to administer a pretreatment program pursuant to federal pretreatment program regulations (40 CFR, Part 403; January 28, 1981) shall pay an additional $1,000 per year plus $335 for each significant industrial user specified in their annual report for the previous year.
(H_2) In addition to applicable fees specified above, special Annual Compliance Fees for Tualatin Basin Pollution Abatement Activities will be applied to the following permittees until Fiscal Year 1998:

Unified Sewerage Agency — Durham $26,720
Unified Sewerage Agency — Rock Creek $22,995
Unified Sewerage Agency — Forest Grove ..... $ 5,450
Unified Sewerage Agency — Hillsboro ..... $ 4,240
Unified Sewerage Agency — Banks ..... $ 185
City of Portland — Tryon Creek ..... $ 910

(b) Industrial, Commercial and Agricultural Sources (Source and Initial and Annual Fee). (For multiple sources on one application select only the one with highest fee):
(A) Major pulp, paper, paperboard, hardboard, and other fiber pulping industry $6,000
(B) Major sugar beet processing, potato and other vegetable processing, and fruit processing industry $6,000
(C) Seafood Processing Industry:
(i) Bottom fish, crab, and/or oyster processing ..... $ 675
(ii) Shrimp processing ..... $ 675
(iii) Salmon and/or tuna processing $1,200
(D) Electroplating industry (excludes facilities which do anodizing only):
(i) Rectifier output capacity of 15,000 Amps or more $6,000
(ii) Rectifier output capacity of less than 15,000 Amps, but more than 5000 Amps $3,000
(E) Primary Aluminum Smelting $6,000
(F) Primary smelting and/or refining of non-ferrous metals utilizing sand chlorination separation facilities $6,000
(G) Primary smelting and/or refining of ferrous and non-ferrous metals not elsewhere classified above $3,000
(H) Alkalies, chlorine, pesticide, or fertilizer manufacturing with discharge of process waste waters $6,000
(I) Petroleum refineries with a capacity in excess of 15,000 barrels per day discharging process waste water $6,000
(J) Cooling water discharges in excess of 20,000 BTU/sec $3,000
(K) Milk products processing industry which processes in excess of 250,000 pounds of milk per day $6,000
(L) Major mining operations (over 500,000 cubic yards per year) $6,000
(M) Minor mining and/or processing operations:
(i) Medium (100,000 to 500,000 cubic yards per year) mechanical processing $2,000
(ii) Medium using froth flotation $3,000
(iii) Medium using chemical leaching $4,000
(iv) Small (less than 100,000 cubic yards per year) mechanical processing ..... $ 500
(v) Small using froth flotation $1,000
(vi) Small using chemical leaching $2,000
(N) All facilities not elsewhere classified with disposal of process waste water $1,200
(O) All facilities not elsewhere classified which dispose of non-process waste waters (i.e., small cooling water discharges, boiler blowdown, filter backwash, log ponds, etc.) ..... $ 750
(P) Dairies and other confined feeding operations on individual permits ..... $ 450
(Q) All facilities which dispose of waste waters only by evaporation from watertight ponds or basins ..... $ 450
(R) General permits 100-J, 200-J, 400-J, 500-J 1000 ..... $ 100
(S) General permit 300-J ..... $ 100
(T) General permits 900-J, 1200-J, 1300-J 1400, 1500-J, 1600 ..... $ 100

[1]*Major Industries Qualifying Factors:*
-1- Discharges large BOD loads; or
-2- Is a large metals facility; or
-3- Has significant toxic discharges; or
-4- Has a treatment system which, if not operated properly, will have a significant adverse impact on the receiving stream; or
-5- Any other industry which the Department determines needs special regulatory control.

[2]*Major Domestic Qualifying Factors:*
-1- Serving more than 10,000 people; or
-2- Serving industries which can have a significant impact on the treatment system.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468.065(2)
Hist.: DEQ 113, f. & ef. 5-10-76; DEQ 129, f. & ef. 3-16-77; DEQ 31-1979, f. & ef. 10-1-79; DEQ 18-1981, f. & ef. 7-13-81; DEQ 12-1983, f. & ef. 6-2-83; DEQ 9-1987, f. & ef. 6-3-87; DEQ 18-1990, f. & cert. ef. 6-7-90; DEQ 10-1991, f. & cert. ef. 7-1-91

ATTACHMENT G

Recommendations of Municipal Permit Fee Advisory Committee

To assist the Department in developing and proposing a new fee structure, an Advisory Committee made up of representatives of affected municipalities was formed in early 1992. The committee met three times to review several Department proposals to increase fees. At their March 13, 1992 meeting, the advisory committee, by a 7 to 1 vote, recommended the following:

1. A fee increase should not be considered at this time. The Department recently (May 1991) increased fees for domestic waste sources under NPDES or WPCF permit. The committee did not believe that there was adequate justification or documentation of need to warrant another increase.

2. If the Department chooses to propose an increase, then the increase to annual compliance determination fees should be prepared as follows:

   a. Do not increase current fees for sludge, pretreatment, and groundwater or the Tualatin Basin special fee.

   b. The fee increase should include a flow based component, a population component, and a fixed fee component. The fee increase should be divided approximately 1/3 to flow, 1/3 to population, and 1/3 to the fixed fee component.

3. The Department should comply with the Governor's directive to review internal opportunities to identify and utilize unexpended funds before defining the amount of additional revenue required.

4. The Department should alter the existing accounting system so that cost accounting will provide a base for increasing accountability.

5. The municipal ratepayers should not be responsible for year one of the biennium funding wherein DEQ failed to initiate fee increases in a timely manner.

6. The municipal ratepayers should not be responsible for the cost increases for existing staff.

7. Any increased fee schedule adopted should contain a sunset clause which limits the increased fees to fiscal year 92/93. This would allow the other task force the opportunity to address the larger issue and to structure an appropriate fee schedule.

Recommendations

8. The Department should identify opportunities to develop fee for services structure, such as Engineering Plan Reviews.

9. The Department should increase the cost of permit application/renewal to a value comparable to the industrial fee charged, thereby reducing the revenue required from annual permit fees.

10. The Department should adopt an annual permit fee model which incorporates the following items.

    BASE FEE + (SIZING VALUE) - (INCENTIVE CREDIT)

    sizing value could be population served, flow or some other relevant item.

11. The Department should develop a program to secure revenue related to non-point source contributions. The program could use the product-surcharge methodology. Inclusive with this process, the Department should evaluate utilizing a similar process for point source funding in lieu of elevated fees.

ATTACHMENT H

TO: Environmental Quality Commission

FROM: Mark P. Ronayne, Hearings Officer

SUBJECT: Hearings Officer's Report - Proposed Modifications to OAR 340-45-075, Wastewater Disposal Permits, to Increase Application Processing Fees and Annual Compliance Determination Fees, and to Add Technical Activities Fees for Domestic Waste Sources Regulated Under Water Pollution Control Facilities (WPCF) and National Pollutant Discharge Elimination System (NPDES) Permits.

A public hearing was held April 21, 1992, beginning at 9:00 a.m., at DEQ Headquarters, 811 S.W. 6th Avenue, Portland, Oregon, to receive testimony regarding the proposed modifications to OAR 340-45-075, Wastewater Disposal Permits. A summary of the oral and written testimony presented at the hearing, and written testimony submitted during the public comment period (March 21, 1992 - April 23, 1992) are presented below. The summary is followed by a response to the testimony.

Oral and Written Testimony Received at April 21, 1992, Public Hearing

1. John L. Smits, R.S., Smits and Associates, Inc.

   Smits and Associates performs engineering and related technical work for small individual and minor domestic sewage treatment and disposal systems, mainly on WPCF permits. The firm believes that the proposed fees for these small systems are far too high. The testimony noted that ORS 454.745 prohibits collection of fees in excess of operating a program. The testimony stated that the construction, engineering and related costs for a "drainfield" system treating and dispersing about 5,200 gallons per day would be about $33,000. The permit application fee, annual compliance determination fee and technical services fee combined for this system would be about $5,450, approaching 20% of the construction and engineering costs. The testimony stated that the permit fees would exceed the engineering fees. The consulting firm recommended that DEQ adopt a fee schedule similar to Washington where application fees specify minimum staff hours to be performed; if more hours are required the applicant is billed for actual time expended. The firm also recommended cost savings measures such as requiring that applications and proposed permits be submitted to conform to a findings of fact procedure, and that the material be transmitted electronically.

2. Cathryn Collis, Intergovernmental Programs Manager, Bureau of Environmental Services, City of Portland.

   The City of Portland commended DEQ for creating a fee advisory committee and for including at least some of the committee recommendations in the fee increase proposal. The City agrees with the current classification of fees into three categories. The City also supports the formation of another advisory group to evaluate the larger issue of funding water quality programs in Oregon--this committee should be formed quickly so that recommendations can be presented to the 1993 Legislature. Concern was expressed regarding the process leading to the fee increase proposal, particularly the lack of involvement of municipalities before and during the 1991 Legislative Session, and generally how municipalities can have a meaningful role in the development of permit fees. In addition the City of Portland is concerned about lack of accountability, the process for establishing fee levels, and the lack of a clear connection between the proposed fees and the specific water quality program activities. The City believes this connection must be established for local governments to convince ratepayers of the need for rate increases.

3. Wes Hare, City Manager, City of Oakridge.

   The City of Oakridge is suffering severe economic hardship due to 20% unemployment. The City is in the process of laying off 3.5 FTE, and recently increased sewer user charges from $7.50 per month to $18.75 per month. The City Manager stated that DEQ's proposed fee increase would necessitate another increase in the user charges--the City of Oakridge is not prepared to adopt new charges. There was substantial concern expressed by the City that DEQ should not increase permit fees to add new staff and pay for increased salaries when Oakridge and other small Oregon communities are in severe financial straits. It was acknowledged that DEQ had reduced its original fee increase proposal from $936,000 to $630,000, but the proposed increase was not adequately justified. The City of Oakridge believes that local governments are held to a higher level of fiscal accountability than DEQ.

4. Ron Stillmaker, Public Works Director, City of North Bend.

   The City of North Bend expressed concern that the annual compliance determination fees had increased from $425 in 1990 to $4,250 currently, and that now a 25% increase to almost $6,000 is proposed. The City emphasized that the overall

impact of pollution control costs is much higher than the DEQ fact sheet indicates because North Bend has recently upgraded the wastewater treatment plant at substantial expense, and is now paying for increased testing requirements. The City does not believe that the increased compliance determination fees have been justified in terms of new services to be provided, and that there have been no changes in level of DEQ service from 1990 when the fees were $425 per year. The City concluded testimony by opposing the fee increase.

5. Warren Thompson, Councillor, City of Salem, Chairman of the Waste Discharge Permit Fee Advisory Committee.

Warren Thompson was chairman of the DEQ Municipal Permit Fee Committee. He thanked members of the committee for participating in the review of DEQ permit fee proposes. He further noted that their participation gave people at the local government level an opportunity to know "first hand" what was being proposed. The Chairman expressed the following concerns regarding the committee process: a) DEQ never made it clear what was the charge of the committee; b) the committee operated on a very short time schedule but DEQ was aware of the need to consider fee increases months before the committee was formed, and consequently DEQ should have started the process much earlier; c) the committee did not have time to absorb large quantities of information in the short time period; and d) the committee could not secure from DEQ the basic budget and cost accounting information necessary to consider a fee increase. He stated that the DEQ fact sheet pertaining to fee increases did not accurately reflect committee recommendations--the fact sheet stated the committee "failed to endorse a fee increase," whereas the committee "did not endorse a fee increase."

In accompanying written testimony, Mr. Thompson reviewed the committee recommendations and the DEQ response to them. (The full recommendations are contained in Attachment G of the staff report.) Following is a summary of the written testimony pertaining to DEQ actions:

a) DEQ did reduce the required revenue from $936,000 to $630,000 in response to a request to identify and utilize unexpended funds but did not reduce the revenue to $468,000 as requested by the committee.

b) DEQ did not address the committee recommendation that the accounting system be altered to provide accountability.

c) DEQ did not address the request that the fees should exclude cost increases to existing staff.

d) DEQ did not respond to a request for a sunset clause.

e) DEQ did respond to a request to develop "fee for services" by proposing a technical services fee.

f) DEQ responded to a committee request to increase application processing fees to a level comparable to industrial permit fees, but the increase was in excess of industrial permit fees.

g) DEQ did not consider adopting incentive credits as part of the permit fee schedule.

h) DEQ did not respond to a request to add fees to recover revenue from nonpoint source contributions.

6. Linda Kelly, Unified Sewerage Agency, Washington County.

The Unified Sewerage Agency supports the addition of the technical services fee since a clear "fee for service" relationship can be established. The Agency believes that the current special fee for DEQ activities in the Tualatin Basin (item J of the current fee schedule) should be dropped on the grounds that extra effort in this basin is no longer necessary, and on equity grounds, i.e., DEQ does not impose a special fee in other basins subject to the TMDL process. The Agency is concerned that program activities associated with the fee increase were not described, and there is serious inequity between municipal permit fees and industrial permit fees, both the annual compliance determination fees and the application processing fees--it was recommended that fees for industrial permits and municipal permits be reviewed for fairness and equity. The Unified Sewerage Agency recommended that DEQ look for cost saving measures in lieu of fee increases, particularly given the public desire to reduce government costs. The Agency strongly recommended consideration be given to the concept of incentives (fees tied to the amount and type of pollutants in the effluent stream)--the Agency believes that an incentive program along with mandates will result in less pollutants being discharged.

Written Testimony Received During the Public Comment Period

7. April 7, 1992, letter, Bill Deist, City Administrator, City of John Day.

   The City of John Day expressed concern regarding the Department's proposal to increase fees after a letter had already been sent in December 1991 stating that DEQ was not proposing fee increases for facilities with dry weather design flows less than one million gallons per day (includes the John Day facility). It was noted that the City's budget was prepared "in line with the letter." The City requested that any fee proposals be consistent with the December 1991 letter.

8. April 8, 1992, letter, Roger C. Rivenes, General Manager, South Suburban Sanitary District.

   South Suburban Sanitary District is concerned about the size of the increase in annual compliance determination fees, and believes that DEQ is proposing more than the amount authorized by the legislature. Because the annual increase is $630,000, in succeeding bienniums the increase would be $1,260,000 per biennium or substantially more than the $930,000 authorized for the 1991-93 biennium. The District also believes that the proposed permit renewal fees are not equitable - communities slightly larger than 10,000 in population would pay the same as much larger communities. The District believes that the large proposed fee for permit renewals with request for effluent limit modifications is intended to limit the ability of small communities to apply for permit modifications.

9. March 25, 1992, letter, Tom Kerr, President, Dikeside Moorage.

   The Dikeside Moorage is opposed to any fee increase because continued cost increases will eventually put people out of their homes. It was noted that the fee increase proposal would result in added charges to households amounting to $40.00 per year, rather than $3.00 per year suggested by DEQ.

10. April 9, 1992, letter, George W. Holroyd, P.E., Century West Engineering Corporation.

    Century West is concerned about the large proposed permit fee increases for small WPCF facilities just over the 5,000 gal/day cut-off for the WPCF permit requirement. Century

West believes that the proposed fees could result in closure of some of these systems. Century West also questioned the new fee for technical services, and noted that the fee in some cases would exceed the engineering design cost. It was suggested that DEQ re-evaluate the fee increase proposals and the financial impact these fees would have on small systems.

11. April 6, 1992, letter, Larry Lehman, City Manager, City of Seaside.

    Seaside does not oppose the proposed annual compliance determination fee increases provided that they are stabilized. The City is opposed to the proposed renewal fee and suggested that the proposed fee should be limited to new facilities or facilities with major operational changes. Seaside suggested that annual assessments should apply to persons with septic tanks, rather than municipalities with sewer systems.

12. April 7, 1992, letter, Danise Mockridge, City Recorder, Town of Bonanza.

    The Town of Bonanza is opposed to any permit fee increase. It was noted that the town has few sewer accounts and cannot afford the increase.

13. March 31, 1992, letter, Rod Carrasco, Superintendent of Public Works, City of Yachats.

    The City of Yachats is opposed to the proposed permit fee increases. It was stated that regulatory fees are taking an increasing proportion of the City budget which results in reduced funds for vital services. It was further noted that Yachats has limited resources to absorb the regulatory fees.

14. March 25, 1992, letter, Gerald Odman, Public Works Director, City of Pendleton.

    The City of Pendleton believes that the DEQ process and methodology for establishing the fee increases is acceptable and supportable. It was suggested that the proposed technical services fee be removed from the municipal permit fee budget and put on a fee for service basis.

15. April 13, 1992, letter, Thomas A. Walker, P.E., Senior Associate, W&H Pacific.

    W&H Pacific is concerned that the proposed fee increases will have a detrimental impact on resort projects in central Oregon, and will impact the earning potential for these small

businesses. W&H Pacific believes that the proposed increases are an unfair penalty to small system operators who work very hard at maintaining well operated systems and meet permit conditions. W&H Pacific recommended an incentive program such that permittees who violate permit conditions pay the fee increases and have an incentive to improve performance; permit holders who are meeting permit conditions would then pay less.

16. April 15, 1992, letter, Jeanne Reeves, Recorder-Treasurer, City of Mosier.

    The City of Mosier protests the proposed fee increases for annual compliance determination and for permit renewals. The City is particularly concerned about the cost impact on retired and fixed income residents.

17. April 20, 1992, letter, Joe McLaughlin, President, League of Oregon Cities.

    The League of Oregon Cities does not believe that DEQ should be proposing a fee increase because the necessary information upon which to base a proposal does not exist. The League expressed concern that local rate increases necessary to cover increased regulatory costs can adversely impact local programs, particularly with fiscal constraints imposed by ballot measure 5. The League advanced two specific concerns regarding the proposed fee increase: a) municipal permit renewal fees will be greater than industrial permit renewal fees but there is no justification; and b) DEQ has not yet attempted to assess fees to nonpoint source pollution contributors. The League recommended that DEQ conduct a comprehensive review of all environmental fees so the cumulative impact could be determined. Finally the League recommended that DEQ develop a cost-accounting system to better ascertain water quality program costs.

18. April 21, 1992, letter, Representative Liz VanLeeuwen, Chair, House Interim Committee on Government Mandates.

    Representative VanLeeuwen submitted comments on behalf of the cities of Brownsville and Tangent. She noted that DEQ's approved budget included authority to raise fees, and she commended the Department for including an advisory committee to assist in development of a new fee schedule. She also stated that advisory committee members were unclear as to the need for the fee increase, benefits which would accrue to the municipalities and specific use of the funds. She requested

that prior to implementation of the new fee schedule, DEQ respond to these concerns in writing to all permittees and to each member of the Legislative Assembly.

19. April 17, 1992, letter, Eileen Samard, Mayor, City of Tangent.

The City of Tangent expressed concern about the impact of a potential fee increase on the City budget and on sewer user charges. The City stated that they did not know what the exact costs or benefits would be to Tangent. The City requested that the proposed fee increase be withdrawn until the DEQ advisory committee could review an audit of the water program and review other documents necessary to determine what the fee increase should be.

20. April 18, 1992, letter, Robert L. Campbell, Mayor, City of Brownsville.

The City of Brownsville was disappointed that DEQ did not respond to the advisory committee recommendations to not increase fees. The City noted that because of tax limitations imposed by measure 5, local governments would have to provide services in a more efficient manner, and that other government agencies should do the same. The City does not believe that sufficient data could be supplied to justify the proposed increase, and that the proposal is greater than the legislatively authorized amount. Concern was also expressed that the proposed permit application fees would be higher than those for industrial waste permits. The City of Brownsville recommended that the proposal, if approved, should only apply to this biennium. It was also recommended that DEQ funding sources and accounting practices should be reviewed prior to any fee increases.

21. April 16, 1992, letter, James L. Hill, Administrator, Wastewater Reclamation Division, City of Medford.

The City of Medford applauded DEQ efforts to reduce the fee increase proposal in response to advisory committee recommendations. The City recommended that DEQ set the permit processing fees equivalent to those now charged for industrial sources. The City also recommended that DEQ should emphasize compliance activities over technical assistance, particularly since resources are limited. Two rule modifications were recommended: a) clarify the language pertaining to permit modifications to ensure that permittees are not charged for DEQ requested modifications,

and b) clarify the language of the proposed technical services fee to make it clear that the fee would be for technical analyses of wastewater system capital improvements.

22. April 16, 1992, letter, Bonnie Parker, City Administrator, City of Umatilla.

The City of Umatilla requested that DEQ review the City's treatment capacity relative to the proposed fees. The City believes that the treatment plant is incorrectly rated, and that it does not have an overall capacity of one million gallons per day.

23. April 20, 1992, letter, R. Kent Squires, General Manager, Oak Lodge Sanitary District.

The Oak Lodge Sanitary District submitted substantial written testimony regarding the proposed permit fee increases. It was noted that information pertaining to effort required for permit processing and for annual compliance determination is not available. The District had several concerns regarding equity, as follows: a) both the current and proposed fees are largely determined by size, and this places a greater burden on those permittees at the bottom of a given category compared to those at the top; b) a flow based system results in higher per capita costs to smaller communities; c) municipalities pay larger fees than industrial sources relative to both major facility and minor facility designation, relative to waste loads, and relative to impact on receiving streams. The District stated that it was a major participant in the last permit fee review, and that it was somewhat disappointed in the implementation to date. The new fees were supposed to have a "fee for service" relationship but this has only occurred with the water quality program's pretreatment program, and not the sludge management program. The District believes that the fee schedule adopted in May 1990 was supposed to be a "trial balloon" for any future fee for service concept proposals and that the duration of the increased fees would be for the biennium without guarantee of infinite continuation." The District further suggested that funding for environmental programs should be broad based rather than assessed only against municipalities and industries, and that any fee review should include nonpoint sources of waste as well as point sources. The Oak Lodge Sanitary District recommended that the fee proposal be withdrawn and dialogue be opened with all affected parties.

24. April 21, 1992, letter, Richard L. Poulson, Building Services Supervisor, Clackamas County.

    Clackamas County does not believe that the proposed fees should be adopted unless there is a parallel increase in service by DEQ. The County is particularly concerned about the proposed fee increase for on site systems, and believes that the fee is not commensurate with the cost for the in house plan and application review that is performed by DEQ. Clackamas County recommends that DEQ either demonstrate that there is an increase in service consistent with the proposed fees or withdraw the proposal and consider fees which are consistent with review and processing costs.

25. April 20, 1992, letter, Alvin Thompson, Mayor, City of Butte Falls.

    The City of Butte Falls described economic hardships that constrain the City's ability to pay increased permit fees, as follows: a) the City is listed as #1 in Oregon as "most adversely affected due to logging cutback;" b) one-third of the state shared revenues to the City have been lost because of erroneous census figures; c) of the City's 160 taxpayers, 50% are retired and most of the rest are unemployed; d) the City tax rate uses up most of the measure 5 tax limitation; and e) required water tests, current fees and various capital improvements will increase costs such that within the next two years the City will be as high as $40,000 over the measure 5 tax limitation of $10.00 per 1,000 assessed valuation limitation. The City of Butte Falls requests economic hardship relief from permit fee increases.

26. April 20, 1992, letter, Donald Welch, Public Works Director, City of Prairie City.

    Prairie City is very opposed to the proposed fee increase. The City stated that the increase in permit renewal fees is not justified and appears to be an attempt to recoup budgetary shortfalls. The City also believes that the increase in annual compliance determination fees cannot be justified-- Prairie City has a very simple non overflow lagoon system, and the costs of reviewing compliance should be low. Prairie City believes that fees in this category are increased proportionately more than other fee categories. The City recommends that DEQ stop the process and start over to develop a fair fee schedule. Prairie City further recommends that any fee increase include a procedure to allow communities time to budget for the increases.

27. April 23, 1992, letter, Steve Wert, Wert and Associates.

    Wert and Associates is opposed to the fee increase for small system owners with WPCF permits. The increase is an unfair burden on property owners, the high fees will result in increased system costs because people with small projects will choose other systems to avoid the permit fee, and small system owners will have difficulty in paying the fees.

28. April 21, 1992, letter, Darleen Cogburn, City Recorder, City of Gervais.

    The City of Gervais is very concerned about the proposed fee increases. Because of the fee increases and other environmental regulatory requirements the City may be unable to meet its financial obligations. The City stated that services and increased requirements are met without additional revenues, and that DEQ should operate under the same revenue restrictions.

29. April 21, 1992, letter, Terry Smith, Oregon Association of Clean Water Agencies.

    The Oregon Association of Clean Water Agencies (ACWA) commended DEQ for allowing local elected officials to serve on the fee advisory committee. The Association stated that DEQ did incorporate some of the advisory committee recommendations, and that the proposed structure (categories and distribution) is an approach to an equitable distribution of the proposed fee. The Association supports the proposed technical services fee. The Association is also pleased that the proposed fee increase was reduced from $936,000 to $630,000.

    The testimony stated that all ACWA members are concerned about the Department's ability to be accountable--both for the size of the fee and the use of the revenues. It was noted that local governments are required to establish fair and equitable user charges to sewerage system customers, and that the membership expects the same level of accountability to be incorporated into the Department's municipal permit structure. ACWA testified that members need to be in a position to tell their own rate payers that there are no subsidies either between categories of domestic waste source permittees or between domestic waste sources and industrial sources. The testimony recommended that the municipal fee advisory committee continue to work with DEQ to help develop accountability procedures. It was noted that testimony

regarding accountability was given two years ago at a hearing on fee increases to fund sludge and pretreatment programs, and that accountability procedures had not yet been developed.

Testimony specific to the fee increase proposal includes the following: a) it appears that the proposed increase is more than is needed to fund new positions, and if this is the case, the proposal should be reduced to an amount necessary to fund the new positions only; unless there is justification for a fee differential, municipal permit fees and industrial permit fees should be comparable; because of the severe financial difficulties experienced by local governments, the fee proposal should be "sunsetted" at the end of the biennium, and DEQ and local governments should work to develop a joint proposal for funding environmental programs.

The Association testimony noted that the Governor has directed state agencies to avoid piecemeal solutions to funding problems. In addition the Legislature passed HJR 68 requesting that local governments not seek voter approval of local tax increases to allow the State time to develop a response and a possible new revenue proposal. The ACWA testimony stated that local government has fulfilled this legislative request but at the same time DEQ was authorized to seek additional revenues and this request was approved by the legislature. The testimony stated that this is a "mixed message" and is of concern to local governments.

The Association of Clean Water Agencies concluded its testimony by requesting that DEQ be "as frugal as possible when determining the final fee increase".

30. April 23, 1992, letter, Harold L. Ball, P.E., Orenco Systems, Inc.

Orenco Systems Inc. submitted testimony stating that the proposed permit fees should only cover the cost of the services rendered, and they should not be used to subsidize other activities within DEQ. The firm believes that the proposed fees are inequitable. Orenco systems Inc. supports the testimony submitted by John Smits (item 1 of the testimony).

31. April 23, 1992, letter, Steven M. Johnson, Public Works Director, City of Myrtle Creek.

The City of Myrtle Creek opposes the proposed fee increases since they will be an unacceptable burden to the City

residents. The City noted that Myrtle Creek/Tri-City sewage treatment plant is now nearing an expansion and modification, and the fees will be an additional burden.

32. April 23, 1992, letter, Jon S. Nelson, City Manager, City of Pendleton.

The City of Pendleton supported the proposed three permit fee categories. The City also supported the concept of "fee for service" and suggested that DEQ charges should receive cost accounting documentation. The City was opposed to those permit renewal fees which are greater than the industrial permit renewal fees. Concern was expressed that the fee structure could result in "windfall profits" and that this should be taken into account in future years' budgets.

33. April 16, 1992, letter, Beverly Holbrook, Park Operator, Riviera Mobile Park.

Riviera Mobile Park is opposed to the permit fee increases. It was stated that the proposed 82 percent increase in compliance determination fees for mobile home parks is inequitable.

34. April 15, 1992, letter, James E. Buchanan, President, Bly Sanitary District.

The Bly Sanitary District is opposed to the proposed fee increases and does not intend to pay for any increases. The District noted that in December 1991, DEQ indicated that small facilities would not be given any fee increases.

35. April 16, 1992, letter, Dr. Charles E. Hofmann, Mayor, City of Baker.

The City of Baker expressed concern regarding the state mandating programs and then leaving the financing problems to local governments. The City does not believe that DEQ should ask local governments to collect state fees to finance enforcement activities. The City questioned the need for the proposed increase and suggested that DEQ may be over-staffed. Concern was expressed that DEQ had ignored the advisory committee recommendations.

36. April 21, 1992, letter, Dave Leonard, Director of Public Works, Douglas County.

Douglas County stated that there has been no measurable increase in service to County operated facilities since 1989, but the fees increased substantially. It was suggested

that DEQ should have a cost accounting system to ensure that fee revenues are used for permit related activities. The County suggested that DEQ use a more practical approach to permit preparation and that this might reduce the permit processing time and reduce the permit backlog. The County did not believe the fee increases, the fee categories or the proposed technical activities fee had been adequately justified.

37. April 23, 1992, letter, Pat Lynch, Executive Director, Special Districts Association of Oregon.

The Special Districts Association of Oregon is generally concerned with the impact of fee increases on special districts, particularly with the fiscal constraints imposed by measure 5. The Association is not opposed to fee increases on "an actual cost of service" basis, but the Association does not believe that DEQ has adequately justified the proposed increase. The Association suggested that DEQ withdraw the proposal and work with local governments to design an equitable and justifiable fee structure.

Response to Testimony

A total of thirty-seven municipalities, associations, private system operators and consultants provided testimony. Comments generally fell into seven categories.

1. Small systems on WPCF permit.
2. Issues and Concerns Pertaining to Accountability and Justification.
3. Financial Duress and Ability to Pay.
4. Measures to Promote Cost Savings.
5. Equity in Fees and Classification Systems.
6. Process of Involvement and Advisory Committees.
7. Use of Incentive Programs.

1. Small Systems.

Comment: Seven commenters asserted that the proposed fees for small systems on WPCF permit are far too high and cannot be justified in terms of technical or regulatory costs to the Department (1,10,15,24,27,30,33). It was suggested that the

proposed fees are so high that they could result in closure of existing systems, and curtailment of economic activity relative to construction of new systems. One of the commenters stated that the proposed fee would increase user charges to individual mobile homes by $40.00 per year.

Response: The current rules pertaining to application processing fees (340-45-075(2) only distinguish between major and minor facilities. Generally, major facilities have a dry weather design treatment capacity of over one million gallons per day, and minor facilities have capacity of less than one million gallons per day. A minor facility can range from just under one million gallons per day with an effluent discharge, but can also include small non overflow lagoons (category E) and very small facilities which treat and disperse effluent to a drainfield (categories F and G). The facilities in categories E, F and G are issued Water Pollution Control Facilities (WPCF) permits rather than NPDES permits.

After reviewing the testimony, Department staff have concluded that the proposed application processing fees for categories E, F, and G are too high for the work required in permit application review and issuance. There is substantial work involved, but since these facilities do not discharge effluent to a stream, the evaluation is limited in scope compared to facilities which do discharge effluent to a stream. The Department proposes to reduce the amount of the proposed fee increase to these small systems, as follows:

a)	New Applications --	$2,000
b)	Permit renewals with increase in effluent limitations --	$1,000
c)	Permit renewals without increase in effluent limitations --	$ 500
d)	Permit modifications with increase in effluent limitations --	$1,000

The Department has also reviewed testimony pertaining to the proposed $1,050 technical activities fee for new or substantially modified water pollution control facilities utilizing on-site wastewater treatment and disposal. Based on the submitted testimony, the Department agrees that the proposed fee is too high; consequently, the proposed fee has been reduced to $500.

The proposed rules (Attachment A) have been revised to incorporate the above fee revisions.

2. Accountability and Justification.

Comment: Six commenters stated that DEQ should first develop and implement a cost accounting system to determine the effort and expenditures for various activities before proposing any fee increases (5,17,23,29,32,36).

Response: The Department is now implementing a cost accounting system which is fully operational and meets both general accounting practice requirements and state regulatory requirements. The DEQ accounting practices are subject to audit by the Secretary of State, and have been audited in the recent past. The Department's accounting for municipal permitting activities, however, is at a level of aggregation which does not make "cost for service or cost for activity" accounting possible. Because of the substantial concern, the Department intends to review current accounting methods for municipal permit fee expenditures. The Department will recommend to the Environmental Quality Commission that a task force be formed in the near future to assist in this review. The charge of the task force will be to work with Department staff to improve formatting and reporting of information pertaining to time and the various permitting activities, and to review the fee structure to ensure equity and fairness in fee schedules. It will also be proposed that any task force conclusions and recommendations be brought to the Environmental Quality Commission for consideration.

Comment: Two commenters expressed concern that DEQ had increased municipal permit fees less than two years ago and that testimony had been submitted requesting that a cost accounting system be implemented. (23,29). One commenter expressed disappointment in the implementation of sludge management services that were supposed to be included in the last municipal permit fee increase (23).

Response: As noted above the Department will be working with a task force in the near future to review ways to improve accountability. The concern regarding current implementation of sludge management services cannot be answered without a review of current activities. The respondent should be receiving technical assistance and a review of their existing sludge program. If this is not the case, the water quality program will ensure that a program evaluation is initiated and technical assistance provided.

Comment: There was extensive comment pertaining to justification for the fee increase (3,4,5,6,17,18,19-23,24,26,29,32,35,36,37). Fifteen commenters asserted that the proposed fees had not been justified in terms of need for the fee or activities and services to be performed with the proposed fee. It was suggested that DEQ should not be increasing unjustified fees when local governments are cutting programs. It was further suggested that unless DEQ could explain how the funds would be specifically used, local governments could not increase user charges to pay for the fees. Some commenters stated that any proposed fee increase could only be justified if the proposal were justified in terms of cumulative impact on local government, both in terms of costs and implementation of new programs. Commenters also stated that any fee increase should only apply to funding of new staff. Several commenters requested that DEQ either fully justify the proposed fees or withdraw the proposal.

Response: The water quality program budget, including municipal permit fees, has been justified through Executive Department, Governor's Office and legislative review. The proposed budget was presented to the Ways and Means Committee over a period of several weeks. The committee hearings were public and there was opportunity for interested parties to provide testimony on any aspect of the budget. The Department was required to justify all budgeted items to the Ways and Means Committee. The Legislature ultimately passed the budget with the understanding that municipal permit fees would have to be increased to secure necessary revenues.

The justification for the municipal permit fee revenues was made at a level of aggregation which does not make it possible to specify services and activities to be provided to individual permittees. As noted above, the Department is recommending the creation of a task force to review ways to improve formatting and reporting of information pertaining to time and the various permitting activities, and to review the fee structure to ensure equity and fairness in fee schedules.

Comment: Two commenters asserted that DEQ was attempting to increase fees that would be in excess of the legislatively authorized amount (8,20).

Response: The Department is proposing to increase fees by about $610,000 during the current biennium. The intent is to collect the entire $610,000 in the second year of the biennium (fiscal year 1993). This is less than the legislatively authorized amount by approximately $320,000. The budget for the next biennium will be submitted to the

1993 Legislature for review and approval. The Department does not intend to collect any fees which are not approved by either the 1991 or 1993 Legislature.

Comment: Three commenters requested that if the proposed fees were adopted by the EQC that they be "sunsetted" at the end of the biennium.

Response: As noted above, any fees which the Department proposes to collect in the next biennium (beginning in fiscal year 1994) are subject to legislative review, evaluation and authorization. "Sunsetting" the fee proposal is not necessary since the legislative review process is the forum to determine the amount of municipal permit fees to collect next biennium. In addition, the Department is proposing to create a task force to review ways to improve formatting and reporting of information pertaining to time and the various permitting activities, and to review the fee structure to ensure equity and fairness in fee schedules.

3. Financial Duress.

Comment: Seventeen commenters expressed that the proposed fees would result in financial hardships either through user charge increases or cuts in programs (1,3,8,9,10,12,13,-16,17,25,27,28,31,33,34,35,37). Several commenters stated that the community could not afford the increase. Inability to stay within measure 5 fiscal constraints or inability to raise user charges were mentioned as possible results of a fee increase. Some commenters expressed that DEQ should not increase fees for programs when local government is cutting back programs.

Response: The question of what constitutes a "financial hardship" is very complex. There is no question that many communities, particularly small communities, are experiencing severe financial problems. This is an economic and financial issue that the Department cannot solve. The proposed fee increases relative to the total sewered population will be quite small, less than $1.00 per year per household on the average.

4. Cost Savings.

Comment: Seven commenters recommended that the Department find ways to effect cost savings measures in lieu of fee increases (1,6,20,21,28,35,36). They stated that local government was forced to improve efficiency and lower costs because of measure 5, and that DEQ should do the same. It was suggested that technical assistance activities should be

curtailed to reduce costs, and that emphasis be placed on compliance activities. Some specific cost savings measures were recommended.

Response: The Department is endeavoring to be as efficient as possible carrying out its regulatory and technical service activities. Due to recent initiatives from the Governor, DEQ is faced with the loss of 60 positions over the next 18 months, about 10% of the agency work force.

5. Equity in Fees and Classification System.

Almost all of the commenters expressed concern regarding equity relative to the proposed fee structure, and the impact of the proposed fees on various classes of permittees. Twenty seven of the thirty seven commenters were clearly opposed to the proposed fees. Several commenters supported at least part of the fee increase, although generally with some reservations. The comments and responses presented below are focused on specific statements pertaining to equity and appropriateness of the fee classification system. Concerns relating to small systems on WPCF permits, such as non-overflow lagoons and mobile home parks, are presented above under item 1. The testimony pertaining to these systems is not repeated in item 5.

Comment: Eight commenters stated that proposed fees for municipal permittees, both application processing fees and annual compliance determination fees, were higher than current fees for industrial permittees (5,6,17,20,21-23,29,32). The testimony suggested that fees should be comparable unless there was documentation to justify a differential.

Response: After reviewing the testimony the Department agrees with the position of many testifiers that application processing fees for municipalities and for industries should be comparable. Consequently, the Department will lower the proposed fees for permit renewals and permit modifications to be equivalent to those currently in force for industrial permittees. The projected annual increase from the proposed fees are approximately $150,000 annually. This estimate is tenuous at best because there is still a very large permit renewal backlog, particularly permits with minor facility designations. Municipal waste permitting staff will endeavor to reduce the backlog as rapidly as possible. If the backlog can be reduced rapidly, it will still be possible to generate an additional $150,000 annually in revenues, even with the reduced fees.

The annual compliance determination fees for municipal permits and industrial permits are not comparable. Generally, municipal pollution control programs are more complex than industrial pollution control programs. Municipal programs, for example, often have a sludge program component and a pretreatment program component. Because municipalities have extensive sewer collection and transport systems along with treatment and disposal facilities, the regulatory and technical assistance activities are generally much more extensive.

Comment: One commenter expressed that permit processing fees should be limited to new applications or to permittees with major facility changes (11).

Response: Permit renewals and even minor permit modifications entail substantial work effort on the part of Department staff. Elimination of proposed fee increases for this work would leave a major unfunded work item.

Comment: One commenter expressed that the proposed large fee increase for permit modifications was intended to restrict the ability of small communities to apply for these modifications (8).

Response: This is not the Department's intent. The amount of work to process a permit modification, particularly a request with changes in effluent limitations, is very substantial. The intent is simply to recover the costs involved in evaluations of treatment performance, stream water quality surveys, etc.

Comment: Two commenters suggested that the classification system for permit processing was too broad, i.e., there would be a much greater burden on communities at the bottom of a given classification than on those at the top of a given classification (8,23). Similar testimony was presented which stated that the fee for non overflow lagoons was increased disproportionately relative to the other classifications (26).

Response: There are now two domestic waste source classifications applicable to permit processing fees, a "major facilities" classification and a "minor facilities" classification. The Department is proposing to subdivide the "minor facilities" classification to create a separate subcategory for permittees operating under a WPCF permit. The addition of new categories or more detailed subdivisions of the existing categories do not appear warranted. The amount of work involved in a permit renewal does not vary

linearly with size of the treatment facility or flow. That is, the amount of work involved in permit processing is about the same for a major facilities permit, regardless of whether the permit is for a one million gallon per day facility or for a 10 million gallon per facility. Because of the complexity of the source and potential for environmental damage, the amount of work effort for a major facilities permit is much greater than the work effort for a minor facilities permit.

Comment: One commenter requested a reevaluation of the classification assigned to their sewage treatment facility (22).

Response: The Department will evaluate the design flows for this facility and the basis for the flows. If warranted, the classification for this facility may be modified.

Comment: Six commenters supported the proposed technical services fee on the grounds that this fee would express a "fee for service" relationship (5,10,14,21,29,32). It was suggested that the fee be clarified to apply only to capital improvements.

Response: The Department will propose this new fee for Commission consideration.

Comment: Three commenters stated that the Department should add a fee for Department activities and regulation of nonpoint sources of waste (5,17,23). Testimony was expressed that it was inequitable to only charge fees to domestic and industrial point sources when nonpoint sources of waste were an important contributor to water quality problems.

Response: The Department agrees that fees should be required for nonpoint waste sources. This is not possible unless statutory authorization is provided by the 1993 Legislature. The Department attempted to secure this authorization in the 1991 Legislative Session, but was not successful. The proposed fees for municipal permits will not subsidize activities for regulating nonpoint waste sources. The permit fees are for permit processing, compliance determination, and for technical activities associated with permit processing such as engineering plan review. Department nonpoint source activities currently are funded by federal grant dollars.

Comment: One commenter stated that a special fee to help pay for Department activities in the Tualatin Basin was unnecessary, and was not equitable since similar fees were not being charged to sources in other basins subject to the TMDL process.

Response: The Department believes that the special fee for the Tualatin Basin TMDL process should still be applicable. After the program requirements relative to the consent decree between the Unified Sewerage Agency and Northwest Environmental Defense Council are satisfied, the Department will propose to eliminate the special fee. Until these program criteria are satisfied however, the Department staff must spend substantial time in review and approval of various work items.

6. Fee Increase Process

Comment: Eleven commenters were concerned about the process for increasing municipal permit fees and the role of an advisory committee (2,3,5,18,19,23,29,35). One of the commenters was concerned about the role of local government in the legislative process, and how local government could have a meaningful part in fee development (2). Three commenters suggested that while DEQ did respond to an advisory committee recommendation to reduce the amount of the proposal the Department did not adequately respond to the full range of advisory committee recommendations (5,18,20). Two commenters expressed that DEQ should withdraw the proposal until the advisory committee could more fully review the Department programs (19,20). Two commenters supported the idea of a continuing advisory committee to address accounting procedures and to develop recommendations for consideration by the 1993 Legislature.

Response: The Department responded to many of the advisory committee recommendations, including a methodology for establishing annual compliance determination fees, a reduction in the proposed biennium fee increase from $936,000 to $610,000, and the addition of a technical activities fee. The Department is recommending the formation of a task force to review ways to improve accountability and justification for expenditures. In addition, the Department's water quality program budget will be subject to public, local government and legislative review. Hearings will be held during the 1993 Legislative Session and there will be opportunity for interested parties to present testimony. As noted above, the Department is recommending the formation of a task force in the near future.

7. Incentive Programs.

Comment: Three commenters recommended that the Department revise the fee schedules to incorporate an incentive program where fee differentials would be established (5,6,15). Suggestions included tying fees to the amount and extent of pollutants in the effluent, lowering fees for improved and high levels of performance, and increasing fees for permittees who violate permit conditions. The general idea was to find a tangible way to reward good performance and to penalize poor performance.

Response: The Department agrees that an incentive program is an excellent idea. An incentive program can be expensive and difficult to administer, however, and a workable incentive program would take some time to develop. The Department does not propose initiation of such a program at this time. After the municipal permit backlog is eliminated, consideration will be given to development of an incentives program.

EXPLANATION OF PROPOSED CHANGES IN PERMIT FEES FOR WASTEWATER DISPOSAL PERMITS

Required Revenues

The 1991 Oregon State Legislature approved a budget recommended by the Department and the Governor which would generate municipal permit fees of $2,016,000 for the 1991-93 biennium. This would require an adjustment in fee schedules to raise an additional $936,000 over those fees currently being collected. The Department is proposing to reduce the $936,000 to about $610,000 for the 1991-93 biennium. The entire $610,000 would be collected in the second year (fiscal year 1993) of the biennium.

Current Fee Structure

The Department now charges an annual compliance determination fee and an application processing fee. The projected revenue from these fees is $1,080,000.

Annual Compliance Determination Fee. The annual compliance determination fee consists of the following components:

a. A flow based fee which ranges from $1,150 for category A1 to $100 for category G. This fee was the entire annual compliance determination fee until the Commission adopted a new fee structure in May 1990.

b. A sludge fee which ranges from $19,500 for category A1 to $25 for category G. This fee varies based on treatment facility size and type, and is much lower for lagoons than for mechanical treatment plants.

c. A groundwater fee which ranges from $210 for category A1 to $60 for category G. This fee varies based on treatment facility size and type.

d. A pretreatment fee is charged to facilities with a Department approved pretreatment program. This fee is $1,000 plus $335 per industry subject to pretreatment requirements.

e. A Tualatin Basin fee is charged for Unified Sewerage Agency treatment plants and the City of Portland Tryon Creek treatment plant. This fee is assessed to help pay Department costs in implementing the water quality program in the Tualatin Basin.

Explanation of Changes

The annual fee for each scheduled category is the summation of the above items a. flow based fee, b. sludge fee, and c. groundwater fee. The pretreatment fee and the Tualatin special fee are added to the scheduled fee to determine the total fee applicable to a permittee. Some examples are presented below:

EXAMPLE A - CURRENT ANNUAL COMPLIANCE FEES
SELECTED COMMUNITIES

Portland Columbia Plant	Category A1
Scheduled Fee	$20,860
Pretreatment Fee	$33,830
Total	$54,690
City of Medford	Category A3
Scheduled Fee	$6,610
Pretreatment Fee	$7,030
Total	$13,640
Coos Bay Plant No. 1	Category C1a
Scheduled Fee	$3,285
Pretreatment Fee	$1,670
Total	$4,955
City of LaGrande	Category C1b
Scheduled Fee	$ 935
Pretreatment Fee	$1,335
Total	$2,270
Unified Sewerage Agency - Banks	Category Da
Scheduled Fee	$ 755
Tualatin Basin Fee	$ 185
Total	$ 940
City of Gold Hill	Category Da
Scheduled Fee	$ 755
Total	$ 755
City of Cannon Beach	Category Db
Scheduled Fee	$ 425
Total	$ 425

Explanation of Changes

City of Lakeview	Category E
Scheduled Fee	$ 250
Total	$ 250

Permit Application Processing Fee. The application processing fees includes fees for new applications, permit renewals and permit modifications. The fee for renewals is on a five year cycle. Fees for minor domestic sources (dry weather design flows of less than one million gallons per day) are substantially less than fees for major domestic sources (dry weather design flows of one million gallons per day or greater). Permit renewal and permit modification fees are increased if the permittee requests a change in effluent limits. The application processing fees currently range from $1,500 for a new permit application for a major domestic source to $200 for minor facility permit renewal not involving an increase in permit limits. The current fee schedule produces about $23,000 annually in revenue. This schedule is presented below for major and minor facilities.

EXAMPLE B - CURRENT PERMIT PROCESSING FEES

Major Facilities	Fee
New Applications	$1,500
Permit Renewals (change in effluent limit)	$ 750
Permit Renewals (no change in effluent limit)	$ 500
Permit Modification (change in effluent limit)	$ 750
Permit Modification (no change in effluent limit)	$ 500
Minor Facilities	
New Applications	$ 600
Permit Renewals (change in effluent limit)	$ 300
Permit Renewals (no change in effluent limit)	$ 200
Permit Modification (change in effluent limit)	$ 500
Permit Modification (no change in effluent limit)	$ 500

Proposed Fee Structure

The Department is proposing a fee structure which will increase annual wastewater disposal permit fees by about $610,000. Of this amount, $350,000 will be from annual compliance determination fees, $150,000 from application processing fees, and $110,000 from the addition of a new category for technical activities related to permit processing.

Annual Compliance Determination Fees. The fee schedule for annual compliance determination fees was revised and fees were increased to generate an additional $350,000 in revenue. Current fees for sludge, pretreatment, groundwater and the Tualatin Basin were unchanged. The entire fee increase was generated from a combination of flow based fees, a fixed fee and a population based fee. The fixed fee is $350 per permittee. The flow based fee varies linearly by dry weather design flows; the fee ranges from $22,350 for category A1 to $5 for category G. The population based fee is approximately $8.00 per hundred persons served by the treatment facility; the fee ranges from $34,000 for category A1 to $8.00 for small facilities in categories E,F and G. The fees scheduled in the proposed rule modifications is the summation of the following items: sludge fee, groundwater fee, flow based fee and a fixed fee. The pretreatment fee, Tualatin Basin fee and the population fee are added to the scheduled fee to determine the total fee applicable to a permittee. Examples are presented below for the same municipalities listed in Example A.

EXAMPLE C - PROPOSED ANNUAL COMPLIANCE FEES
SELECTED COMMUNITIES

Portland Columbia Plant		Category A1
	Scheduled Fee	$42,410
	Pretreatment Fee	$33,830
	Population Fee	$34,004
	Total	$110,244
City of Medford		Category A3
	Scheduled Fee	$11,020
	Pretreatment Fee	$7,030
	Population Fee	$7,235
	Total	$25,285
Coos Bay Plant No. 1		Category C1a
	Scheduled Fee	$4,175
	Pretreatment Fee	$1,670
	Population Fee	$1,125
	Total	$6,970

Explanation of Changes

City of LaGrande	Category C1b
Scheduled Fee	$1,825
Pretreatment Fee	$1,335
Population Fee	$1,013
Total	$4,173
Unified Sewerage Agency - Banks	Category Da
Scheduled Fee	$ 955
Tualatin Basin Fee	$ 185
Population Fee	$ 60
Total	$1,200
City of Gold Hill	Category Da
Scheduled Fee	$ 955
Population Fee	$ 80
Total	$1,035
City of Cannon Beach	Category Db
Scheduled Fee	$ 625
Population Fee	$ 101
Total	$ 726
City of Lakeview	Category E
Scheduled Fee	$ 600
Population Fee	$ 203
Total	$ 803

Permit Application Processing Fees. The fee schedule for permit application processing fees was revised and fees were increased to generate an additional $150,000 in revenues. The proposed fees major domestic facilities are equivalent to current fees for major industrial permittees. The proposed fees for minor facilities in permit categories Da and Db are equivalent to current fees for minor industrial permittees. The proposed fees for minor facilities in categories E, F, and G (non-discharging lagoons and on-site systems with septic tank and drainfield disposal) are about one-half of the proposed fees for minor facilities in categories Da and Db. The proposed schedule is presented below for major and minor facilities.

EXAMPLE D - PROPOSED PERMIT PROCESSING FEES

Major Facilities	Fee
New Applications	$20,000
Permit Renewals (change in effluent limit)	$10,000
Permit Renewals (no change in effluent limit)	$ 5,000
Permit Modification (change in effluent limit)	$10,000
Permit Modification (no change in effluent limit)	$ 500
Minor Facilities -- Permit Categories Da, Db	
New Applications	$ 4,000
Permit Renewals (change in effluent limit)	$ 2,000
Permit Renewals (no change in effluent limit)	$ 750
Permit Modification (change in effluent limit)	$ 2,000
Permit Modification (no change in effluent limit)	$ 500
Minor Facilities -- Permit Categories E, F, G.	
New Applications	$ 2,000
Permit Renewals (change in effluent limit)	$ 1,000
Permit Renewals (no change in effluent limit)	$ 500
Permit Modification (change in effluent limit)	$ 1,000
Permit Modification (no change in effluent limit)	$ 500

Technical Activities Fees. The Department is proposing to add a new fee category to help pay for engineering and other technical analyses associated with new permit applications, renewals and modifications. The proposed fees were based on estimated work effort by senior sanitary engineers for reviewing engineering plans and specifications. The proposed fee schedule presented below will generate about $110,000 annually in fees.

EXAMPLE E - PROPOSED TECHNICAL ACTIVITIES FEES

	Fee
New or substantially modified sewage treatment facility	$4,600
Minor sewage treatment facility modification and pump stations.	$ 500
Pressure sewer system, or major sewer collection system expansion.	$ 350
Minor sewer collection system expansion or modification.	$ 100
New or substantially modified water pollution control facilities utilizing on-site wastewater treatment and disposal.	$500

Approved
Approved with Corrections ✓

Minutes are not final until approved by the EQC

ENVIRONMENTAL QUALITY COMMISSION

Minutes of the Two Hundred and Twenty First Meeting
June 1, 1992

Regular Meeting

The Environmental Quality Commission regular meeting was convened at 8:30 a.m. on Monday, June 1, 1992, in Conference Room 3A, Oregon Department of Environmental Quality (DEQ), 811 S. W. Sixth Avenue in Portland, Oregon. The following commission members were present:

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

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

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

Chair Wessinger called the meeting to order and introduced Linda McMahan. Ms. McMahan has been nominated to replace Commissioner Squier.

A. Approval of the Minutes.

Commissioner Castle **moved** that the February 18, 1992, Special Meeting, and the April 23, 1992, regular meeting, minutes be approved; Commissioner Lorenzen seconded the motion. The minutes were unanimously approved.

B. Approval of Tax Credit Applications.

The Department recommended approval of the following tax credit applications.

Application Number	Applicant	Description
TC-2923	Newberg Garbage Service	Solid waste recycling equipment.
TC-3705	Hillsboro Auto Wrecking	RGF Ultrasorb water recycling system.
TC-3758	Whitman's Towing and Crane Service	Automobile air conditioner coolent recycling machine.
TC-3759	Fuller's Automotive	Automobile air conditioner coolent recycling machine.
TC-3761	Rush Automotive	Automobile air conditioner coolent recycling machine.
TC-3771	Bauer Enterprises	Automobile air conditioner coolent recycling machine.
TC-3773	The Autosmith	Automobile air conditioner coolent recycling machine.
TC-3780	Don and Laura Christensen	Grass seed straw storage shed.

Additionally, the Department proposed an addendum to this agenda item and recommended approval of Application Number TC-3724. This tax credit application for National Frozen Foods is a wastewater treatment system consisting of a wastewater surge/storage pond, a closed pattern tile drainage system under the wastewater disposal area and associated plumbing system.

Roberta Young of the Tax Credit Program, Management Services Division, and Mike Downs of the Environmental Cleanup Division, asked that Application Number TC-2923, Newberg Garbage Service, be deferred until the July Environmental Quality Commission meeting. The Department had requested that more information be submitted.

Commissioner Lorenzen **moved** that Agenda Item B with the exception of TC-2923 be approved with the addendum; Commissioner Whipple seconded the motion. The motion was unanimously approved.

RULE ADOPTIONS

C. Proposed Adoption of Risk-Based Soil Cleanup Standards.

Background: The amendments and proposed additional rules provide for numerical cleanup levels and a streamlined process for potentially responsible parties (PRPs) to clean up hazardous substances at "simple" sites.

Discussion: Director Hansen provided the Commission with a brief summary of of advisory committee efforts and the need for numerical standards. Brooks Koenig, Environmental Cleanup Division, spoke about the process used in developing the cleanup standards table, that the advisory committee met and deliberated for about 18 months on the standards and that a technical subcommittee had been created to facilitate the process. Mr. Koenig also talked about using risk assessment in creating the cleanup table. He said that these standards were for simple sites where soils contained few contaminants.

Commissioner Lorenzen asked how much of the cleanups were required by the federal government. Director Hansen reviewed the Superfund program and noted that most of that money went toward consultant studies not cleanup. Commissioner Lorenzen said he believed too much resources were being spent on achieving background levels and that this issue should be revisited. Director Hansen responded that the Department had established background as a requirement. This was done to coincide with strict liability existing under federal law, that banks are unwilling to give credit and that insurance companies are unwilling to insure owners of potential contaminated property. Director Hansen indicated that these rules were for simple spills where testing is relatively easy to determine background. Mr. Downs also added that background is the goal to be achieved if it is technically and economically feasible, however, no site has yet been cleaned to background.

Action: Commissioner Castle **moved** that the amendments to the existing cleanup rules be approved; Commissioner Lorenzen seconded the motion. Mr. Koenig added that the cleanup tables would need some minior adjustment to file with the Secretary of State. Commissioner Lorenzen indicated that his second to the motion included those minor adjustments. Agenda Item C was unanimously approved.

Director Hansen said that the Environmental Cleanup Advisory Committee will review the progress of the changes and report their findings to the Department. This information will be included in the Director's Report to the Commission.

D. Proposed Adoption of Underground Storage Tanks (UST) Clean Up Rule Revisions for Groundwater Clean Up Standards and Procedures.

Background: The rule amendments establish groundwater clean up standards, provide clear direction and foster consistent clean up of UST releases and protection of public health, safety, welfare and the environment.

Discussion: Mike Downs, Lon Revall and Michael Fernandez of the Environmental Cleanup Division provided the Commission with a brief summary of the amendments. Mr. Downs said the amendments reduce the length and expense of cleanup evaluations. He noted that several years ago, the soil matrix rules were adopted to guide simple cleanups of UST sites with only soil contamination by petroleum. These rules complete the process by extending the concept to include numeric criteria for groundwater cleanup. Mr. Revall added that the amendments provide an option for responsible parties who do not want to initiate an extensive study. Further, the rules provide consistency and decentralize the cleanup process. Chair Wessinger asked staff if the concerns expressed by Mr. Wright of Fossil had been addressed. Mr. Revall replied that use of the cleanup table was only one option. He indicated that other options could be pursued, including the normal study and cleanup process.

Doug Dehahn, Executive Director of the Oregon Petroleum Marketers' Association, spoke to the Commission. Mr. Dehahn gave background information about heating and motor fuel dealers. He said that groundwater contamination is only one of the problems faced by owners of USTs. Mr. Dehahan also expressed concern about petroleum delivery systems. He indicated that several divisions of the Department are working on UST related issues independently and are not well coordinated with each other and with the dealers and distributors. Mr. Dehahn told the Commission that these groundwater rules will add 4 cents per gallon to the price of gasoline at the pump. He stated that the price of gasoline already includes 15 cents per gallon for environmental requirements.

Chris Wholers, District Manager of ATEC Environmental Consultants, and a member of the advisory committee, said he voted to not send the rules to the Commission. His preference was for the committee to continue working on the rules over the next 18 months. Mr. Wholers said there has been a great deal of debate about including additives in the groundwater rules; however, he said, the Department had not thoroughly examined the issue. He indicated that questions exist about the need for standards on additives and that he had not seen any data that would support the rules in this regard. He added that other states were not including additives in their rules. Mr. Wholers said the rules need to be verified over the next 18 months and that field data should be analyzed. He said that the Department should investigate how other states approach leaking underground storage tank (LUST) sites and that some states

are examining PAH and additives in their sampling. Mr. Wholers added that the rules increase costs. He said that staff had made assumptions that contaminated water could be discharged at sewage treatment plants (STPs). He said that STPs require further clean up of the water at a significant cost. In concluding, Mr. Wholers said there was a problem with the groundwater class system and that shallow aquifers not used for drinking water should not be included in the rules. Mr. Wholers recommended that the Commission hold the rules for further study and not adopt them.

Mr. Revall said that the advisory committee agreed to revisit the rules in 18 months but did not agree to come back with site-specific data. Mike Anderson, Environmental Cleanup Division, indicated that every substance in the soil cannot be analyzed. He said the Department looked for the more risky compounds (based on risk assessment data) and had consulted with the Department's toxicologist to research safe levels of compounds. Mr. Anderson said that determining whether additive compounds are apparent in samples is very controversial at this time. He noted that the Department is asking for PAH data only at selected sites.

Anne Hill, Chair of the Environmental Cleanup Advisory Committee, indicated that this discussion had occurred on many occasions before the committee. She noted that there were three dissenting votes and that the majority vote of the committee was reflected in the proposed rules. She stated that the initial screening was appropriate and beneficial to Oregon. She added that the committee will review the matter in 18 months and make a judgment about whether the empirical data justifies the rule.

Action: Commissioner Castle **moved** that Agenda Item D be approved; Commissioner Lorenzen seconded the motion. The revisions to the UST cleanup rules were unanimously approved.

Staff indicated that they would return to the Commission regarding data collected over the next 18 months and could return sooner depending on the results.

E. Proposed Adoption of Amendments to Hazardous Waste Fees, Aquatic Toxicity, Chlorofluorocarbons (CFCs) Rules:

Background: Stephanie Hallock, Hazardous and Solid Waste Division, provided the Commission with a brief description of the proposed amendments to the three rule topics included in this item. She also provided the Commission with a copy of a proposed clarifying amendment which substituted a new paragraph (4) on page A-5 of Attachment A to the staff report.

Discussion: Chair Wessinger asked why the three disparate items were included under one agenda topic. Ms. Hallock replied that combining the requests reduced the number of requests brought before the Commission. Staff and Commission discussed the fee cap included in the proposed hazardous waste generator fee increase. Commissioner Castle said he was not convinced a cap was needed and expressed concern about the wording in the staff report. Commissioner Whipple asked about creosote. Director Hansen indicated that the cost of shipping creosote materials to a hazardous waste disposal facility was prohibitive.

Action: Commissioner Whipple **moved** that Agenda Item E, including the amendment proposed by staff, be approved; Commissioner Castle seconded the motion. The motion was unanimously approved.

F. Proposed Adoption of Underground Storage Tank Financial Assistance Rules.

Background: The proposed rules provide financial assistance in the form of loan guarantees, reduced interest rates, grants and insurance co-payments to property and tank owners or permittees to assist in meeting corrective action, technical and financial responsibility requirements at facilities with underground storage tanks containing motor fuel for resale.

Discussion: Commissioner Lorenzen asked about the potential for dual compensation of stations displaced by federal or state government highway projects. Director Hansen indicated the Department provided actual cleanup and replacement costs of the tanks but that he would check to make sure this was correct. He said these sites were usually seasonal facilities.

Ms. Hallock also introduced a series of amendments to the rules on pages A-3, A-21, A-22, and A-23. The amendment at the top of page A-21 was suggested by the Department's Legal Counsel. The remaining amendments were clarifications suggested by the U. S. Environmental Protection Agency.

Action: Commissioner Lorenzen **moved** that Agenda Item F with the proposed amendments be approved; Commissioner Whipple seconded the motion. The rules and amendments to implement UST financial assistance programs were unanimously approved.

K. PUBLIC FORUM

Ron LaFriend, Oregonians for Survival, spoke to the Commission about the April 23 EQC meeting. He referred to the non-point source program overview and indicated he had concerns and questions about the presentation. Mr. LaFriend questioned the bioassay techniques used. Additionally, in regard to the document presented, he had disagreements with page 6 of the report and said that the examples provided did not represent the majority of Oregonians. He said that the staff does not listen to the citizens of Oregon and that the Department is growing for the sake of growing and does not need additional staff. He concluded by stating that the magnitude of the problem is out of proportion, and the Department is not using common sense approaches.

G. Proposed Adoption of Rules to Increase Fees for Municipal Waste Discharge Permits.

Background: The proposed rule amendments would increase the annual compliance determination fee, permit processing fee and would add a new category to assess a fee for technical activities related to permit processing. The fee increases would be used to secure additional revenues necessary to fund municipal permitting activities.

Discussion: Lydia Taylor, Water Quality Division, provided the Commission with a brief background about the changes. She indicated that in addition to increases, the fee schedule included fees for some sewage sources which had not been previously required to pay for permits. The increase would be used to maintain the permit program and reduce the backlog of permits. Tom Lucas, Water Quality Division, said the advisory committee and an additional technical subcommittee examined various fee options including fixed fees and fees based on flow and population.

John Smits, representing Smits and Associates, said that the current system could not provide adequate accounting to support the fee proposal. He suggested that the proposed fees were excessive for small systems he represented.

Director Hansen said that for the record the municipalities had expressed concern to the Department about the increased fees. Commissioner Whipple noted that someone must pay the cost for permitting, but was concerned that people believe they are not getting what they are paying for. Ms. Taylor replied that the Department provides the permit program on behalf of the people of Oregon, that permit processing had not been prompt enough, and that the fees seek to recover the costs sufficient to fund the program. Commissioner Castle said the cost was inevitable and did not appear out of line in a real world context.

Action: Commissioner Castle **moved** that Agenda Item G be approved; Commissioner Lorenzen seconded the motion. The proposed rules to increase fees for municipal waste discharge permits was unanimously approved.

H. Proposed Adoption of Minor Changes in Wastewater Permit Fee Schedule for General Permits.

Background: The proposed rule changes would revised the wastewater permit fee schedule in order to cover additional general permits proposed to be issued by the Department.

Action: Commissioner Whipple **moved** that Agenda Item H be approved; Commissioner Lorenzen seconded the motion. The changes to the wastewater discharge permit fee schedule were unanimously approved.

ACTION ITEMS

I. Request for a Wet Weather Season Mass Load Increase for the City of Newberg.

Background: Commission approval of an increase in allowable discharge loading during the wet weather season for the City of Newberg would enable the City to fully use the design capacity of the treatment plant without violating the mass-based effluent limits for Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) in the National Pollutant Discharge Elimination System (NPDES) permit. The Depratment concluded that the proposed increase would not impair the beneficial uses or cause violation of water quality standards of the Willamette River.

Action: Commissioner Lorenzen **moved** that Agenda Item I be approved; Commissioner Castle seconded the motion. Agenda Item H was unanimously approved.

J. Bond Issuance Resolution for Mid-Multnomah County Sewers (City of Gresham).

Background: This resolution would authorize issuance of pollution control bonds in the amount of $1,500,000 for one the purchase of special assessment bonds from the City of Gresham for sewer construction in mid-Multnomah County.

Discussion: Chair Wessinger asked why the Department was buying and selling bonds. Noam Stampfer, Management Services Division, replied that the Department could obtain a lower interest rate for the users. Director Hansen indicated that the EQC ordered the sewering. He said the city would put their bond rating at risk if they purchased the bonds. Effectively, Director Hansen indicated, the Department would be functioning as a bond bank.

Action: Commissioner Whipple **moved** that Agenda Item J be approved; Commissioner Castle seconded the motion. The bond issuance resolution was unanimously approved.

Commissioner Castle commented on the fee cap issue discussed previously in Agenda Item E. He said that he had difficulty with the cap rationale but believed it was well reasoned and could be used as a model. Commissioner Castle asked the Department to examine the issue further. Director Hansen indicated the Department would do so. Commissioner Castle further stated there should be some cost associated with the amount of waste generated.

L. Commission Member Reports:

Commissioner Whipple said that funding for the Governor's Watershed Enhancement Group would discontinue after June. She said the group would meet this month to allocate ~~remaining~~ available funds for enhancement projects. She indicated the group would be examining cost share support for watershed projects.
Commissioner Whipple said it would be unfortunate for the group to disassemble and then later have to start over again. She said it was important that federal and public participation proceed in this type of forum.

Chair Wessinger reported on conversations he had regarding the issue of AOX and the order entered by the Commission in the pulp mill permit appeals. He indicated that complete technical information may not have been available when the Commission decided on these limits. Chair Wessinger said that he met with James River in Vancouver, Washington, as an individual, not representing the Commission. He said James River indicated they were close to meeting limits by substituting chlorine without spending additional monies to install oxygen delignification to reach the same result. He noted his concern with what was being discharged to the river.

Chair Wessinger said that the mills would like the Commission to reconsider the matter. He indicated the Department had followed Washington State's dioxin requirements; however, Washington and Oregon do not have similar standards now and Oregon's requirements could be allowing two different discharge limits in the same water body. He suggested a request for reconsideration could be handled as follows:

1. The companies involved would provide information about why the Commission should reconsider the limits;

2. The other parties in the proceeding could provide input to the Commission on whether the matter should be reconsidered.

3. The Commission would decide to reconsider; if the Commission chose to reconsider, then the actual procedure for the reconsideration process would have to be determined.

Larry Knudsen, Assistant Attorney General, replied that if a motion was filed, the Commission may choose to act on the motion; if no action was taken, the motion would be deemed denied.

Commissioner Lorenzen said he had questions about what the State of Washington and the U. S. EPA were doing in reard to this issue.

Mr. Knudsen suggested a motion for reconsideration would put the issue back into a contested case process and any ex parte contacts would need to be disclosed and placed in the record. Commissioner Lorenzen said it would be easier to discuss the policy issues potentially involved in a rulemaking proceeding rather than in a contested case. Mr. Knudsen indicated that rule making could be undertaken and that new or amended rules could cause permits to be amended.

Commissioner Whipple said she would not mind reconsideration if water quality improvement would result.

M. Director's Report:

Director Hansen reported on the following items:

1. A Special Legislataive Session may occur to consider the Governor's proposed tax plan; mail-in voting may be used.

2. A preliminary report of the Columbia River Study indicates elevated levels of metals, dioxins and bacteria.

3. James River Recycling Plant was recently dedicated. The plant is operating at 60-70 percent of production capacity and with a wastewater discharge that is 15-20 percent of their allowed discharge load.

4. Hearing authorizations:

   - A rulemaking hearing was authorized on a proposed rule to require the use of oxygenated fuel during the winter months (November-February) in carbon monozide non-attainment areas beginning November 1, 1992. Areas affected include Jackson and Josephine Counties, Klamath County, and the Portland Metropolitan Area (Multnomah, Clackamas, Washington, and Yamhill Counties). Use of oxygenated fuel is a new requirement of the recent Federal Clean Air Act amendments.

   - Rulemaking hearings are expected soon on three rule amendments in the water quality program. These amendments will deal with the enterococcus bacteria standard, mass waste load limits for municipal permits and the extent to which compliance with a permit should shield the permittee from enforcement of permit related rules.

OTHER BUSINESS

The Commission considered future meeting schedules and made the following determinations:

- Friday, August 7, 1992 -- A special meeting in Portland to consider the consultant's report on the mining rule issues was scheduled .

- Friday, September 11, 1992 -- The regular meeting previously scheduled for September 9 was moved to September 11. That meeting will be held in Eugene.

INFORMATIONAL ITEMS

N. Information Report on Proposed Parking for the 600 Holladay Building.

Background: The purpose of this discussion item was to provide the Commission with general information on parking policies in the region in light of the proposed 600 Holladay Building parking project. Director Hansen gave a brief summary of this issue. He said that the project must meet special conditions required by the City of Portland and Tri-Met. Additionally, the Governor's Motor Vehicle Task Force (MVTF) would be studying this policy.

Discussion: Keith Bartholomew, 1000 Friends of Oregon, spoke to the Commission. He commended the Director and Commission on their creative approach to this issue and asked that they consider other solutions. Mr. Bartholomew said these solutions included creating a sound policy and making the parking space to tenant ratio one-to-three. Further, he had concerns about the timing of this project in regard to other parking projects in the Sunset Corridor, Beaverton, Gresham and Hillsboro. He urged the Commission to take temporary measures now and that Option No. 4 in the staff memorandum be considered by the MVTF.

Commissioner Lorenzen recommended the Department make parking structure permits self-enforcing. Director Hansen replied that non-conditional permits could be developed and civil penalties could be applied when permit requirements were violated.

There was no further business and the meeting was adjourned at 2:15 p.m.