

Part 1 of 2
OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 03/03/1989



State of Oregon
Department of
Environmental
Quality

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for any discrepancies in the page numbers**

OREGON ENVIRONMENTAL QUALITY COMMISSION

WORK SESSION

March 2, 1989

Department of Forestry
2600 State Street
Salem, Oregon

Protection Conference Room
Building 2

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

- 2:00 pm 1. Policy on Delegation of Programs.
- 2:20 pm 2. Beneficial Uses of Water: General Discussion.
- 2:40 pm 3. Container Nurseries: Water Pollution Control Strategy Discussion.
- 3:00 pm 4. Tualatin Basin Interim Storm Water Rules: General Discussion.
- 3:30 pm Field Trip: Marion County Garbage Burner, Brooks.

OREGON ENVIRONMENTAL QUALITY COMMISSION

REVISED TENTATIVE AGENDA

March 3, 1989

NOTE: The Commission will breakfast with legislators at 7:30 a.m., Room 50, State Capitol, Salem.

Mission Mill Dye House
1313 Mill Street S. E.
Salem, Oregon 97310

Consent Items - 9:00 a.m.

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

- A. Minutes of the January 19 and 20, 1989, EQC meeting.

- B. Monthly Activity Report for December 1988.
- C. Civil Penalties Settlements.
- D. Tax Credits for Approval.
- E. Commission member reports:
 - Pacific Northwest Hazardous Waste Advisory Council (Hutchison)
 - Governor's Watershed Enhancement Board (Sage)
 - Strategic Planning (Wessinger)

Public Forum

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

Hearing Authorizations

Request for Authorization to Conduct Public Hearings on:

- F. Proposed Rule to Limit Gasoline Volatility During the 1989 Summer Ozone Season.
- G. Modifications to Air Quality Regulations for Kraft Mills to Correct Deficiencies, Add Opacity Standard for Recovery Boilers, Clarify Monitoring Requirements.
- H. Revisions to Hazardous Waste Rules including Adoption of New Federal Rules.
- I. The State/U. S. Environmental Protection Agency (EPA) Agreement (SEA).
- J. Modifications to Construction Grant Rules to Implement Transition to the Revolving Loan Fund.
- K. Proposed New Rules Related to Approval of Increased Wastewater Discharges.
- L. Proposed Total Maximum Daily Loads (TMDLs) for the Yamhill River.
- M. Proposed Interim Stormwater Control Rules for the Tualatin River.

Rule Adoptions

Public hearings have already been held on the rules proposed for adoption. Testimony will not be taken on items. However, the Commission may choose to question interested parties present at the meeting.

Request for adoption of:

- N. Underground Storage Tanks (UST) Installer, Decommissioner, Tester and Inspector Certification Rules.
- O. Enforcement Policy and Penalty Matrix Rules.
- P. State Revolving Loan Fund Rules.

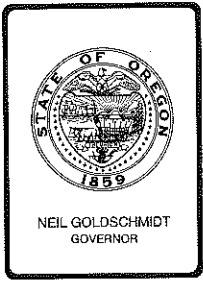
Other Items

- Q. Request by the City of Lowell for Approval to Discharge Treated Sewage Effluent into Dexter Reservoir near the Outlet.
- R. Informational Report: Update of Definition of Recyclable Materials and Principal Recyclable Materials.
- T. METRO Solid Waste Reduction Program: Approval of Stipulated Order.

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

The next Commission meeting will be Friday, April 14, 1989. There will be a short work session prior to this meeting at 2:30 p.m., Thursday, April 13, 1989.

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 229-5301, or toll-free 1-800-452-4011. Please specify the agenda item letter when requesting.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

WORK SESSION
REQUEST FOR EQC DISCUSSION

Meeting Date: March 2, 1989
Agenda Item: 1
Division: ECD
Section: _____

SUBJECT:

Proposed commission policy on delegation of federal Environmental Protection Agency (EPA) programs to the department.

PURPOSE:

To provide policy direction to the department when it is considering whether to request delegation of federal environmental programs from EPA.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)

- Authorize Rulemaking Hearing
 - Proposed Rules (Draft) Attachment _____
 - Rulemaking Statements Attachment _____
 - Fiscal and Economic Impact Statement Attachment _____
 - Draft Public Notice Attachment _____

- Adopt Rules
 - Proposed Rules (Final Recommendation) Attachment _____
 - Rulemaking Statements Attachment _____
 - Fiscal and Economic Impact Statement Attachment _____
 - Public Notice Attachment _____

Meeting Date:
Agenda Item: 1
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Issue Contested Case Decision/Order
Proposed Order Attachment

Other: (specify)

DESCRIPTION OF REQUESTED ACTION:

Adoption of an informal policy directing the department to approach each delegation decision on a case by case basis without any preconceived judgment about whether accepting delegation is good or bad for state management of environmental programs.

AUTHORITY/NEED FOR ACTION:

Required by Statute: _____ Attachment
Enactment Date: _____

Statutory Authority: _____ Attachment

Amendment of Existing Rule: _____ Attachment

Implement Delegated Federal Program: _____ 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 1

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The proposed policy has not been discussed with the public or regulated community outside the discussions that were held at the August 22-23, 1988 EQC Retreat. Public and industry representatives at that meeting seemed to accept the concept of a neutral delegation policy.

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PROGRAM CONSIDERATIONS:

There should be no impact on the agency's budget, other approvals required, or change in relationships with other agencies if the commission were to adopt this policy.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

No alternatives were considered by the department.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The department recommends the commission adopt the following policy statement:

"In determining whether to request delegation of an EPA program, the department should investigate and consider the specific advantages and disadvantages that would result if program delegation were pursued. This investigation and consideration should be carried out in an atmosphere free of any bias or pre-judgments about whether seeking delegation of federal environmental programs is generally beneficial to the state, and should consider at least the following criteria:

1. Would delegation of the program improve protection of present and future public health, safety, welfare and the environment in Oregon?
2. What are the economic consequences of accepting delegation including potential impacts on the public, business, and the Department's budget?
3. Is delegation consistent with the Department's strategic plan?
4. Is delegation consistent with legislative policy direction provided in Oregon statutes or the Department's authorized budget?
5. Is delegation beneficial to management of environmental programs by the Department?"

The department's policy has been to seek delegation of federal environmental programs to the state whenever available, unless there were overriding reasons why it would not be in the state's interest to do so. The advantages and disadvantages of this policy are discussed on pages 4 - 8 of Attachment 1.

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Based upon the discussions at the commission's August 22-23, 1988 Retreat, it is now clear that overall the benefits of seeking delegation are generally balanced by the problems encountered. Therefore, it would be wise to adopt a neutral position on delegation and consider each specific delegation opportunity on it's own merits.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Not aware of conflict with any agency or legislative policies.

ISSUES FOR COMMISSION TO RESOLVE:

Should this policy be applied only to prospective delegation decisions, or should the Department review all currently delegated programs as well?

INTENDED FOLLOWUP ACTIONS:

Apply the policy, as appropriate, to delegation decisions and report to Commission on proposed decisions.

Approved:

Section: _____

Division: Michael Downs

Director: Full House

Report Prepared By: Mike Downs

Phone: 229-5254

Date Prepared: Feb. 14, 1989

(MJD:MJD)
(DELEGATE.EQC)
(2/3/89)

DELEGATION/STRINGENCY

August 22-23, 1988

EQC Retreat

Over the years the Department has accepted delegation of a number of federal environmental programs. Some of these programs include:

National Pollution Discharge Elimination System (NPDES) - requires the issuance of permits to all facilities discharging effluent to navigable waters.

Construction Grants - provides federal grant funds for the construction of publicly owned sewage treatment works.

Resource Conservation and Recovery Act (RCRA) - Subtitle C provides a comprehensive federal program for management of hazardous waste from its generation to final recovery, treatment or disposal.

National Emission Standards for Hazardous Air Pollutants (NESHAPS) - federal emission standards for toxic air pollutants that can be adopted and implemented by the state through conditions added to air contaminant discharge permits, or other requirements.

New Source Performance Standards (NSPS) - provides emission limitations for major new or modified sources of air contamination that must be included in air permits.

In general, a delegable program is one where the federal government adopts regulations to implement a program at the federal level, and provides a process whereby states can implement the program in lieu of the federal government. Similarly, the federal government has mandated that states implement certain programs entirely at the state level through adoption of state regulations, or state planning efforts. A good example of these required state programs is the State Implementation Plan designed to result in compliance with the federal clean air standards by specific dates. The main difference between delegable and mandated programs is that a delegable program will be implemented by EPA unless the state accepts delegation, while a mandated program must be implemented by the state to avoid federal sanctions.

A significant portion of the Department's programs are either mandated or delegated federal programs. In addition, the Department operates several programs that have no federal counterpart. An example is the Noise Program. Attachment I provides a summary of most of the agency's delegated, mandated and purely state-oriented programs.

Federal programs may be delegated to the states under specific statutory authority provided by Congress in the enabling legislation (e.g. Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act). Generally, Congress requires states to meet certain basic requirements in order to be eligible for delegation. Usually, these requirements include:

- 1) The state must have equivalent statutory authority to implement a program at least as stringent as the federal program.

- 2) The state must adopt administrative rules to implement the program that are at least as stringent as the federal regulations.

- 3) The state must have adequate resources to carry out the program.

- 4) The state must amend its program from time to time to keep it current with whatever new program requirements are adopted at the federal level.

5) The state must have a defined enforcement program, usually that meets minimum federal requirements for enforcement authority.

Additionally, Congress usually requires that the Environmental Protection Agency (EPA) provide oversight of the state program to ensure it is being implemented in accordance with the federal requirements.

The Department's policy has been to seek delegation of federal environmental programs to the state whenever available, unless there are overriding reasons why it would not be in the state's interest to do so. The reasons for this policy are summarized below:

- o The Department can do a better job implementing the program in Oregon than the federal government can.
 - We generally have more resources available to implement the program than EPA has.
 - We have a better understanding of state/local issues, and the specific problems that individual industries have in complying with the program.
 - We provide more technical assistance to the regulated community than EPA can.

- o The regulated community has repeatedly expressed a strong desire to work with the Department rather than EPA.
- o The Department's enforcement approach is superior to EPA's, resulting in generally high compliance rates, respect for the state program in the regulated community, and better environmental protection.
- o The state has better control of how the program is implemented in Oregon if the Department is responsible for implementation.
- o The Department often finds itself getting involved when the EPA implements a program in the state because we want to influence the federal decision-making process for the benefit of the state. So we are involved even when the program hasn't been delegated.
- o The Department often has a parallel program to the federal program because of unique state concerns that aren't addressed by the federal program, and because the Department usually has developed its program before the federal government got involved. This results in confusing

jurisdictional issues and duplication of resources that can usually be eliminated by delegation.

- o Overall, the environmental programs are better implemented, the interrelationships between programs better developed, and a better comprehensive environmental management approach is possible if all the programs are implemented by one agency. The federal government doesn't have environmental programs in key areas such as solid waste management, recycling, and hazardous waste reduction.

- o It is usually desirable to have a good state program even where the federal government hasn't delegated its program to the state. However, it is very difficult to convince the Legislature to fund a state program where the federal government retains responsibility for a major portion of it.

Some of the disadvantages of the state accepting delegation of federal programs follow:

- o Often, the federal government doesn't provide adequate resources to implement the delegated program. The state is expected to find the additional resources needed, usually from the state general fund or fees charged the regulated community.

- o The state is required to implement all of the federal requirements in a delegated program, some of which it may not agree with.
- o EPA generally holds the delegated state to a higher performance standard than they are capable of meeting. This can strain state/EPA relationships.
- o EPA constantly is looking over the Department's shoulder to ensure it is implementing the program properly. Sometimes this oversight amounts to micromanagement because the federal employees either can't delegate responsibility properly, or are afraid to.
- o Federal requirements are constantly changing, and the state must amend its program to conform to the new requirements. Often these changes will require additional resources to implement and they aren't available from EPA. Further, it can be difficult to receive final program delegation when the goalposts keep changing.
- o EPA's continued day-to-day involvement in some delegated programs sets up a situation where the regulated community "answer shops" between the state and federal government,

looking for the most favorable response. This makes it difficult for the state to give a clear and consistent message to the regulated community. It undermines the state program.

Another Department policy related to delegated programs provides that the state will not adopt different, or more stringent, requirements than the federal program unless there are significant reasons that these additional requirements are needed to protect public health or the environment in Oregon. This policy has been followed by the Department for several reasons:

- o Many of the companies regulated in Oregon have operations in other states and are very familiar with the requirements of the federal programs. The state requirements avoid confusion, and improve voluntary compliance, when they are the same as those adopted at the federal level.

- o In some cases, the federal program has established complex requirements that have been interpreted by the courts, or for which extensive guidance has been developed. Program implementation at the state level can be enhanced by the adoption of these federal interpretations and guidances.

- o The regulated community has strongly encouraged the adoption of federal requirements verbatim (by reference) whenever possible.

- o Where the state requirements are the same as the federal, the review of the state program by EPA to ensure equivalency usually proceeds more smoothly, and can speed up delegation decisions.

Even though federal programs are quite comprehensive, the Department has often found that more stringent, or additional, state regulations are necessary to protect public health and the environment in Oregon. Since federal regulations are written from a national perspective, they don't necessarily provide complete coverage of unique state physical features, industrial classifications/economic conditions, or ecosystems. The Department has responded by plugging these federal "loopholes" with appropriate state regulations that result in a complete federal/state program that makes sense for Oregon.

It is also important to note that EPA has only developed regulations for programs that Congress has required them to implement. Consequently, the Department has developed regulations for many environmental programs that have no federal counterpart.

For example, Water Quality has regulations to protect the beneficial uses of surface water and groundwater. Similarly, there are regulations to implement the Opportunity to Recycle Act, and regulations restricting backyard burning in the Portland area. These are only a few of the examples of Department regulations designed to address environmental problems that the federal government has chosen not to regulate. Thus, the Department's policy on the stringency of regulations adopted to implement delegated federal programs only affects a small portion of the total agency environmental regulations.

The issues for Commission discussion are whether the Department should continue to follow its existing delegation and stringency policies, whether there are changes or refinements that should be made to the policies, or whether the policies should be abandoned for other approaches.

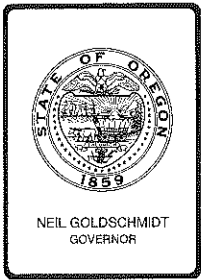
Nationally, there is growing unrest among states about increasing EPA demands for more and larger state programs, while Congress reduces available resources to states to implement these programs:

- o Should the state only take delegation of federal programs where Congress provides adequate resources to implement them?

- o Should the state limit its funding of delegated programs to only those portions where the state has set forth requirements that go beyond the federal program?
- o Should the state attempt to assume delegation of only those portions of federal programs it feels are of most benefit to the state?
- o If the state doesn't accept delegation of a federal program, should it develop or retain a unique state program or leave implementation entirely to EPA?
- o Should the state supplement the federal program with unique state requirements, or just implement the delegated federal program?
- o Are there some types of delegable federal environmental programs that the state should not consider for delegation?
- o What can the state do to improve the quality of EPA oversight of delegated programs? What can we do to improve the quality of federal programs to make the delegation process work more smoothly?

Delegation/Stringency
August 22-23, 1988 EQC Retreat
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DELEGATI.ON
Mike Downs
229-5254
August 11, 1988



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

WORK SESSION REQUEST FOR EQC DISCUSSION

Meeting Date: 3/3/89

Agenda Item: Item No. 2

Division: Water Quality

Section: Planning & Monitoring

SUBJECT:

Discussion of the general water quality management program, and the policies and water quality standards necessary to protect the beneficial uses of the waters of the state.

PURPOSE:

The purpose is to provide an overview of the water quality program, describe the river basin plans for Oregon, discuss how the policies and standards within these plans protect beneficial uses, and review how point and nonpoint source discharges are currently regulated for all waters of the state. This background should provide the Commission with a framework to evaluate policy decisions that may affect waters of the state.

ACTION REQUESTED:

- Work Session Discussion
- General Program Background
- Program Strategy
- Proposed Policy
- Potential Rules
- Other: (specify)

DESCRIPTION OF REQUESTED ACTION:

The Department is not requesting specific actions at this time. A general water quality program overview is provided to describe the way in which waters of the state are managed, and where potential issues may exist or improvements considered. The Commission will need to make decisions about the level of protection necessary for waters of the state. This background paper should assist in defining how the program currently works and how it is applied to protect and manage water quality.

Water quality is managed through a statewide water quality management plan that is described in Oregon Administrative Rules Chapter 340 Division 41. The plan is divided into a series of sections that contain general policies and guidelines that are applicable to all waters of the state, and then further divided into more specific policies and standards for individual river basins in Oregon:

- A. Policies and Guidelines Generally Applicable to All Basins contain the following:
 - o Antidegradation Policy (OAR 340-41-026)
 - o General Groundwater Quality Protection Policy (OAR 340-41-029)
 - o Policy on Sewerage Works Planning and Construction (OAR340-41-034)
 - o Implementation Program Applicable to All Basins (OAR 340-41-120)
 - o Nuisance Phytoplankton Growth (OAR 340-41-150)

- B. Individual Basin Plans for 19 River Basins in Oregon contain the following:
 - o Beneficial Uses for each basin (drinking water, fisheries, industrial water supplies, etc.)
 - o Standards for protecting beneficial uses (temperature, toxics, nutrients, etc.)
 - o Minimum design criteria for treatment and control of wastes
 - o Special policies and guidelines specific to the basin for additional level of protection

A brief overview of the various components of the water quality management plan, and how it is applied to waters of the state is contained in the Developmental Background section of this report.

AUTHORITY/NEED FOR ACTION:

- | | |
|---|------------------|
| <input type="checkbox"/> Required by Statute: _____ | Attachment _____ |
| Enactment Date: _____ | |
| <input checked="" type="checkbox"/> Statutory Authority: <u>ORS 468.710</u> | Attachment _____ |
| <input type="checkbox"/> Amendment of Existing Rule: _____ | Attachment _____ |
| <input type="checkbox"/> Implement Delegated Federal Program: _____ | Attachment _____ |
| <input type="checkbox"/> Other: _____ | Attachment _____ |

Time Constraints: (explain) The Department reviews water quality standards every three years in order to amend rules to incorporate the most recent information available. The Department will be preparing new rules for water quality for the Commission to consider within the next six months as part of the scheduled triennial review process.

DEVELOPMENTAL BACKGROUND:

Water Quality Management in Oregon

A. Introduction

Water quality is managed in Oregon through a statewide water quality management plan described in Oregon Administrative Rules Chapter 340 Division 41: Statewide Water Quality Management Plan: Beneficial Uses, Policies, Standards and Treatment Criteria, together with the applicable laws of Oregon and regulations of the Environmental Quality Commission.

Under this plan, the Department manages water quality by evaluating each discharge and activity, whether existing or a new proposal, on a case-by-case basis, based on the best available information currently available and within the limiting framework of minimum standards, treatment criteria, and policies which are set forth in the plan.

The goal of the statewide management plan is to maintain and enhance surface and groundwater resources in a coordinated manner to fully protect designated beneficial uses.

A brief overview of the various components of the management plan, and how it is applied for waters of the state follows.

B. General Policies and Guidelines

The Management Plan begins with definitions of terms, and general policies and guidelines that are applicable statewide to all nineteen river basins in Oregon. The first general policy is the Antidegradation Policy (340-41-026) that describes the protection of high quality surface waters and the prevention of unnecessary degradation of those waters to protect all beneficial uses. It also describes procedures to follow for the control of point and nonpoint source discharges.

The second general policy applies to the protection of groundwater resources (340-41-029) and describes source control and problem abatement. In addition, a policy addressing Sewerage Works Planning and Construction (340-41-034) is included to provide guidelines for evaluating, financing and constructing sewerage facilities.

An implementation program for point and nonpoint sources (340-41-120) which describes minimum design criteria for waste treatment and control facilities and monitoring requirements, and a nuisance phytoplankton growth rule (340-41-150) are also included.

C. River Basin Plans

Each of the nineteen river basins designated by the Water Resources Department have specific management plans that identify beneficial uses to be protected. The EQC has adopted water quality standards that must be met to protect the beneficial uses in that river basin. It is important to have specific plans to account for environmental differences throughout the state.

Beneficial Uses: The nineteen river basins and the specific designated uses for each basin are listed in the rules. Beneficial uses include propagation of fisheries, aquatic life, and wildlife; public and private domestic water supplies; agricultural, municipal and industrial uses; hydro power; commercial navigation; recreation in and on the water; and aesthetic quality.

Standards: In 1976, the EQC established numeric and narrative standards, and minimum design criteria for treatment and control of wastes, specifically designed to protect designated beneficial uses for each basin. The strictest standards established were for the protection of fisheries and aquatic life, since these were considered the most sensitive uses. If water quality was high enough for fish, it would most likely support all the other uses as

well. For the five coastal basins, standards were also established for estuarine and marine waters, as well as freshwaters, to account for different beneficial uses and capacity for assimilating wastes.

Although most standards are designed to protect beneficial uses in general, in some cases, more specific standards are required to protect a specific or unique use. For example, the dissolved oxygen (DO) standard varies in different segments of the Willamette River. The DO standard through Portland Harbor protects fish passage, whereas it changes for spawning areas, and again for non-spawning areas. The DO standard also changes for estuarine and marine waters due to water chemistry differences.

Other specific standards include those for estuarine shellfish growing water where fecal coliform must be very low in order to protect humans from consuming contaminated shellfish. However, fecal coliform can be higher in non-shellfish growing areas and still protect water contact recreation activities. In addition, some standards provide different levels of protection. The standards for toxic substances are designed to prevent chronic (long-term) toxicity in to organisms in certain areas, and acute toxicity (short-term lethal) in other areas.

Standards for other water quality parameters such as temperature, pH, floating debris, and conventional pollutants are also included. These standards can vary from basin to basin depending on the physical conditions and natural chemistry of the waters in the basin, and the uses to be protected.

Minimum Design Criteria for Treatment and Control of Wastes:

Limits on the concentration of pollutants that may be discharged from municipal and industrial wastes are described. For example, the limits on total suspended solids and BOD for high flow winter conditions, and limits for low flow summer months are defined sewage wastes for each basin. In addition, rules for discharging industrial wastes and the conditions that must be met are also included.

Special Policies and Guidelines: Some river basins may have special policies and guidelines included if unique waters are present. For example, the Willamette Basin plan identifies the Clackamas Subbasin, McKenzie Subbasin above Hayden bridge, and the North Santiam Subbasin, as waters where no further waste discharges will be permitted. The Willamette Basin plan also identifies specific criteria for Phosphorus

and Ammonia Nitrogen and sets the total maximum daily loads (TMDLs) of these parameters in the Tualatin Subbasin.

D. Regulating Point and Nonpoint Source Discharges

Activities that may lower water quality are regulated to minimize or prevent unnecessary degradation in order to protect beneficial uses. Point sources, such as municipal or industrial wastewater discharges, are regulated by permits that specifically identify limits on the concentration and loading of pollutants allowed to be discharged into a receiving waterbody. The allowable pollutant loads are calculated so that the standards for the receiving waterbody in a specific basin are not violated after the effluent is diluted and mixed with the receiving waters. The quality of the effluent is monitored daily to assure that the highest and best treatment is used to remove most of the pollutant loads, and that receiving waterbody water quality will be protected. The control of conventional pollutants such as suspended solids and Biochemical Oxygen Demand, has been the primary focus of the water quality program. However, the control of persistent toxic contaminants and accumulation in waterbodies of these and other chemicals such as nutrients has been a key focus.

Nonpoint source discharges, such as runoff from forestry and agricultural activities, urban runoff, landfill leachate, and failing septic tanks, are more difficult to control. Best Management Practices (BMP's) have been designed to implement the best methods for preventing water quality degradation, so water quality standards can be met and beneficial uses protected. For example, the fencing of livestock from streams to prevent streambank erosion and bacterial contamination, is a type of BMP. In addition, leaving trees and other riparian vegetation in buffer strips along streambanks in forest harvest areas helps to prevent erosion, controls temperature, and retains water for the stream protecting fish and aquatic life. Since nonpoint source activities do not require permits, however, day to day monitoring of the activities and evaluating whether water quality standards are being met at all times is not presently possible.

Since most waterbodies in the state receive both point and nonpoint source discharges, the cumulative effect of these wastes must be considered. In some cases, the assimilative capacity of a waterbody has been exceeded and water quality degraded below standards. If this occurs, water quality must be improved by calculating and setting a Total Maximum Daily

Load to assure that only as many wastes enter waterbodies as can be assimilated. The allowable pollutant loads are divided into Waste Load Allocations for point sources, and Load Allocations for nonpoint sources.

E. Where Do We Need To Go From Here?

The designated beneficial uses, for the most part, are broad based and were intended to apply in general throughout a basin. There are many areas where water quality is higher than the standards and the existing water quality standards may not adequately protect some of the more sensitive, less defined beneficial uses (i.e. aesthetics and recreation), special resource values, or the biological integrity of those unique or outstanding quality waters of the state.

In the absence of water quality standards specific for high quality or unique waters of the state, activities that may lower water quality have been generically regulated through the antidegradation policy. However, the application of the policy to all waters of the state, particularly in trying to prevent degradation from nonpoint sources, has not been clear. Since the antidegradation policy is applicable to all basins, and is an important policy to establish guidelines and a decision-making process, it should more clearly define when water quality may be lowered and what waterbodies in Oregon need special protection.

The next discussion paper will identify the goals and application of the antidegradation policy to build the foundation for a better water quality management program.

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

Meeting Date: March 3, 1989
Agenda Item: Item No. 2
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REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

Since we are only describing the water quality program, this is not applicable at this time.

PROGRAM CONSIDERATIONS:

The Department needs to conduct a triennial standards review process under its existing water quality program and resources. There are no additional program considerations to discuss at this time, until specific amendments to the rules are proposed.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

Not applicable at this time.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission direct the Department to evaluate the current policies and standards and define a clearer implementation strategy for all waters of the state. The current standards and policies may need to be amended to provide better protection and a more defined decision-making framework for all waters of the state.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The water quality management plan and current water quality standards are consistent with ORS 468.710 that establishes the beneficial use protection policy for Oregon, and states that water quality and biological integrity of state waters shall be protected and enhanced.

Section 101(a) of the Water Quality Act (1987) defines the national goal of restoring and maintaining the chemical, biological, physical integrity of the Nation's waters. Section 303(d) (4) explicitly refers to the satisfaction of the antidegradation requirements of 40 CFR 131.12 (Water Quality Standards Regulation) prior to taking any actions that may lower water quality. It also requires that states must have an antidegradation policy language that is consistent with, and at least as stringent as the federal policy language and adopted as part of the state water quality standards. In addition, the

Meeting Date: March 3, 1989
Agenda Item: Item No. 2
Page 9

federal regulation directs each state to develop appropriate implementation procedures.

Oregon's antidegradation policy is not currently consistent with the federal antidegradation policy and must be amended in the future.

ISSUES FOR COMMISSION TO RESOLVE:

The Commission will need to evaluate how it will proceed to make decisions for balancing water quality use with protection in the future for all levels of water quality. High quality and outstanding quality waters or waters with unique values are not addressed in terms of protection for their special resource values. For the next work session, the Department will provide a discussion paper that describes an approach to amending the standards to more clearly protect all waters of the state.

INTENDED FOLLOWUP ACTIONS:

- o Draft a discussion paper that evaluates the current standards and recommends an approach for amending them to more adequately protect all waters of the state.
- o Draft a proposed amendment to the antidegradation policy that incorporates the waterbody classification system.
- o Draft a Request for EQC Action for a proposed antidegradation policy to hold public hearings.

Approved:

Section:

Jeff Mullane

Division:

Richard Nichols ^{WIM}

Director:

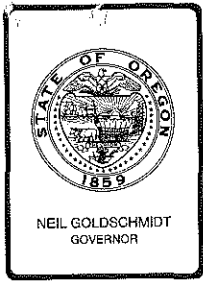
Julia Hance

Report Prepared By: Krystyna Wolniakowski

Phone: 229-6018

Date Prepared: 2/16/89

KUW:crw
WC4545
2-17-89



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

WORK SESSION
REQUEST FOR EQC DISCUSSION

Meeting Date: March 2, 1989
 Agenda Item: 3
 Division: Water Quality
 Section: Industrial Waste

SUBJECT:

Strategy for the Control of Pollutants From Container Nurseries

PURPOSE:

In September, 1988, the Commission adopted rules for the Tualatin River subbasin. These rules require the Department to develop a control strategy for addressing the runoff from container nurseries. The purpose of this discussion item is to bring the Commission up-to-date on the progress of the strategy development.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)

- Authorize Rulemaking Hearing

| | |
|--------------------------------------|-------------------------------------|
| Proposed Rules (Draft) | Attachment <input type="checkbox"/> |
| Rulemaking Statements | Attachment <input type="checkbox"/> |
| Fiscal and Economic Impact Statement | Attachment <input type="checkbox"/> |
| Draft Public Notice | Attachment <input type="checkbox"/> |

- Adopt Rules

| | |
|---------------------------------------|-------------------------------------|
| Proposed Rules (Final Recommendation) | Attachment <input type="checkbox"/> |
| Rulemaking Statements | Attachment <input type="checkbox"/> |
| Fiscal and Economic Impact Statement | Attachment <input type="checkbox"/> |
| Public Notice | Attachment <input type="checkbox"/> |

- Issue Contested Case Decision/Order

| | |
|----------------|-------------------------------------|
| Proposed Order | Attachment <input type="checkbox"/> |
|----------------|-------------------------------------|

- Other: (specify)

DESCRIPTION OF REQUESTED ACTION:

With the help of the Oregon Department of Agriculture and the Oregon Association of Nurserymen, a strategy to control the level of pollutants from container nursery operations is proposed. The strategy is being developed to address the requirement in OAR 340-41-470(3)(j)(D) and is intended to do the following:

1. Correct immediate water quality problems by soliciting voluntary compliance in accordance with an approved schedule. Where necessary, the schedules may be formalized in stipulated consent orders.

2. With the help of a special project to be conducted by Oregon State University, over the next 12 months, evaluate various management practices associated with fertilizer application, irrigation, and irrigation return flow recirculation to determine the best method of controlling waste loads within the waste load allocations established in the Tualatin River Subbasin.

3. Work with the Oregon Department of Agriculture (ODA) to define the best management practices (BMPs) and to have those BMPs included in the ODA program plan for achieving the load allocations adopted by the Department. The program plan is due March 8, 1990.

AUTHORITY/NEED FOR ACTION:

| | |
|---|---------------------|
| <input type="checkbox"/> Required by Statute: _____ | Attachment _____ |
| Enactment Date: _____ | |
| <input checked="" type="checkbox"/> Statutory Authority: <u>ORS 468.020</u> | Attachment _____ |
| <input type="checkbox"/> Amendment of Existing Rule: _____ | Attachment _____ |
| <input type="checkbox"/> Implement Delegated Federal Program: _____ | Attachment _____ |
| <input checked="" type="checkbox"/> Other: OAR 340-41-470 (3)(j)(D) | Attachment <u>A</u> |
| <input checked="" type="checkbox"/> Time Constraints: | |

The special policy rules adopted by the Commission September 9, 1988, for the control of nutrients in the Tualatin River subbasin [OAR 340-41-070(3)(j)(D)], requires the Department to develop a strategy for controlling runoff from container nurseries. The strategy is to be developed by March 8, 1989 (within 180 days of the adoption of the rules).

Meeting Date: March 2, 1989
Agenda Item: Container Nurseries
Page 3

DEVELOPMENTAL BACKGROUND:

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

**In agreement of the Technical Advisory Committee, the Oregon Association of Nurserymen (OAN) subcommittee prepared a proposed strategy. A draft of that strategy is attached. An updated version will be forwarded later.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The Department has been working with a Technical Advisory Committee for the past 9 months. The committee consists of members of the container nursery industry along with the appropriate governmental agencies. The container nursery industry has expressed the following concerns:

1. They feel that they are being singled out from the agricultural community as a whole. However, the method used in growing their nursery stock in pots does provide some unique challenges not experienced by most other agricultural practices in the Tualatin Basin.
2. They fear that the Department will require them to eliminate all discharges to public waters.
3. They are concerned about increased costs associated with runoff control.
4. They are concerned that if total recycle is required it will be a vehicle for spreading plant disease.
5. They are concerned that recycle ponds may increase the probability of groundwater contamination.
6. They are concerned that recycle ponds may concentrate herbicides and contribute to nursery stock damage.
7. Some do not feel that they have the room to build a recycle system.

PROGRAM CONSIDERATIONS:

Whatever strategy is finally chosen to deal with nurseries, it must assure that the quantity of pollutants being discharged directly or indirectly into the Tualatin River subbasin will meet specific load allocations. The strategy must then include a time schedule for developing and implementing necessary BMPs and other necessary controls to meet load allocations, provisions for monitoring water quality, a means for evaluating whether or not load allocations are being met, and a process for responding to situations where load allocations are not being met. The strategy must also have a sponsor (implementing agency) that is capable of implementing the program.

If the Department becomes the main agency in implementing the chosen strategy, additional resources will have to be found to do the work. This will require some shifting of resources within the Department, at a minimum. If another agency is determined to be the main agency, the impact on the Department of Environmental Quality will be less.

In investigating container nurseries, the Department has found localized water quality problems associated with some container nurseries. These problems are mainly due to toxic conditions created by the discharge from a few nurseries. The Department believes these localized problems must also be addressed.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

The strategy proposed by the Oregon Department of Agriculture and the Oregon Association of Nurserymen is a good approach to developing best management practices for controlling runoff from container nurseries. The question is how the sources should be regulated once the best management practices have been developed.

Alternatives are:

1. Require a permit for each nursery that has a defined discharge of irrigation return water. A permit would include discharge limitations, compliance schedules, and monitoring requirements.

Advantages: a. Assures accountability to individual sources.

- Disadvantages:
- a. Industry is opposed to the use of a permit.
 - b. Could require substantial workload on the Department.
 - c. Would require a change in the permitting rules. Irrigation return flows are, by definition, non-point sources and have historically not required permits.
 - d. Puts more of the work load and responsibility on the Department rather on the designated agency for agricultural sources, the Oregon Department of Agriculture.

2. Through the program plan and a memorandum of agreement with the Department of Agriculture, assure compliance with the load allocations on a area-wide basis. If in-stream monitoring showed a load allocation were being violated on a certain stream, an investigation would be needed to determine if best management practices were or were not being provided. If not, action would be taken against the person or persons not applying appropriate BMPs. If all BMPs were being applied, the Department of Agriculture would have to determine what additional controls or BMPs might be necessary to further control waste waters.

- Advantages:
- a. It treats all agricultural sources the same. Container nurseries are not singled out for a permit or special regulatory approaches.
 - b. No change in rules would be necessary.

- Disadvantages:
- a. Less control on the individual container nurseries with discharges. Those with discharges are undoubtedly contributing more nutrients to the Tualatin River and it's tributaries acre for acre than those agricultural operations without a direct discharge.
 - b. The mechanism for enforcement against operators which do not cooperate with the establishment of the BMPs is not clearcut without a permit to enforce against.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that a permit process or something equivalent be used for controlling the discharge from container nurseries.

The container nurseries with direct discharges are a significant contributor of nutrients to public waters. They can be easily regulated by permit as are other point sources with direct discharges. The permit provides a means of accountability. Permits provide a mechanism for establishing effluent limits, monitoring requirements, compliance schedules, and management practices.

If there can be another mechanism identified, more acceptable to the nursery industry, which will provide the same degree of accountability as does the permit, the Department will be amenable to using the equivalent control program.

The strategy proposed by the Oregon Association of Nurserymen Irrigation Run-off Committee provides for a means of evaluating current management practices so that BMPs can be identified. It also contains a reasonable time schedule for developing BMPs. However, it does not provide a sure means of implementing the necessary controls. The permit program or something equivalent would not replace the strategy they have proposed but would be the means for assuring that BMPs are implemented.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Normally, agricultural facilities, with the exception of confined animal feeding operations, are considered non-point sources and are not regulated by permit. If the Department decides that this industry is best regulated by permit, it will deviate somewhat from that policy. It will require minor changes in the permit rules.

ISSUES FOR COMMISSION TO RESOLVE:

1. Should waste discharge permits be used for the control of container nurseries? Is there another way to regulate them which can provide the same degree of accountability?

2. If the Commission determines that container nurseries are best regulated by permit, should permitting extend beyond the Tualatin subbasin? Should other irrigated agricultural operations also be regulated by waste discharge permits?

Meeting Date: March 2, 1989
Agenda Item: Container Nurseries
Page 7


3. Rather than regulating them by permit, should the pollutants from container nurseries be controlled only by establishing BMPs which would be implemented in accordance with a Memorandum of Agreement with the Oregon Department of Agriculture as part of their program plan?

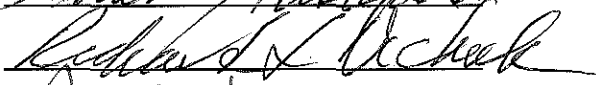
4. Should the Commission accept the strategy for developing BMPs proposed by the OAN and the time schedule it includes?

INTENDED FOLLOWUP ACTIONS:

1. Implement the adopted strategy for developing BMPs.
2. Proceed to rulemaking if it is determined that container nurseries will be regulated by permit.

Approved:

Section: 

Division: 

Director: 

Report Prepared By: Charles K. Ashbaker

Phone: 229-5325

Date Prepared: February 2, 1989

cka:cka
DEQ.CN1
February 16, 1989

SPECIAL POLICIES AND GUIDELINES

340-41-470

- (1) In order to preserve the existing high quality water for municipal water supplies and recreation, it is the policy of the EQC to prohibit any further waste discharges to the waters of:
 - (a) The Clackamas River Subbasin;
 - (b) The McKenzie River Subbasin above the Hayden Bridge (river mile 15);
 - (c) The North Santiam River Subbasin.
- (2) The Environmental Quality Commission shall investigate, together with any other affected state agencies, the means of maintaining at least existing minimum flow during the summer low flow period.
- (3) In order to improve water quality within the Tualatin River subbasin to meet the existing water quality standard for dissolved oxygen, and the 15 ug/l chlorophyll a action level stated in OAR 340-41-150, the following special rules for total maximum daily loads, waste load allocations, load allocations, and implementation plans are established.

(a) After completion of wastewater control facilities and implementation of management plans approved by the Commission under this rule and no later than June 30, 1993, no activities shall be allowed and no wastewater shall be discharged to the Tualatin River or its tributaries without the specific authorization of the Commission that cause the monthly median concentration of total phosphorus at the mouths of the tributaries listed below and the specified points along the mainstem of the Tualatin River, as measured during the low flow period between May 1 and October 31*, of each year, unless otherwise specified by the Department, to exceed the following criteria:

| Mainstem (RM) | ug/l | Tributaries | ug/l |
|------------------------|------|--------------|------|
| Cherry Grove (67.8) | 20 | Scoggins Cr. | 60 |
| Dilley (58.8) | 40 | Gales Cr. | 45 |
| Golf Course Rd. (52.8) | 45 | Dairy Cr. | 45 |
| Rood Rd. (38.5) | 50 | McKay Cr. | 45 |
| Farmington (33.3) | 70 | Rock Cr. | 70 |
| Elsner (16.2) | 70 | Fanno Cr. | 70 |
| Stafford (5.4) | 70 | Chicken Cr. | 70 |

(b) After completion of wastewater control facilities and implementation of management plans required approved by the Commission under this rule and no later than June 30, 1993, no activities shall be allowed and no wastewater shall be discharged

[discharge of wastewater] to the Tualatin River or its tributaries without the specific authorization of the Commission [shall-be-allowed] that cause[s] the monthly median concentration of ammonia-nitrogen at the mouths of the tributaries listed below and the specified points along the mainstem of the Tualatin River, as measured between May 1 and November 15* of each year, unless otherwise specified by the Department. to exceed the following target concentrations:

| Mainstem (RM) | ug/l | Tributaries | ug/l |
|------------------------|------|--------------|------|
| Cherry Grove (67.8) | 30 | Scoggins Cr. | 30 |
| Dilley (58.8) | 30 | Gales Cr. | 40 |
| Golf Course Rd. (52.8) | 40 | Dairy Cr. | 40 |
| Rood Rd. (38.5) | 50 | McKay Cr. | 40 |
| Farmington (33.3) | 1000 | Rock Cr. | 100 |
| Elsner (16.2) | 850 | Fanno Cr. | 100 |
| Stafford (5.4) | 850 | Chicken Cr. | 100 |

- (c) The sum of tributary load allocations and waste load allocations for total phosphorus and ammonia-nitrogen can be converted to pounds per day by multiplying the instream criteria by flow in the tributary in cfs and by the conversion factor 0.00539. The sum of load allocations waste load allocations for existing or future nonpoint sources and point source discharges to the mainstem Tualatin River not allocated in a tributary load allocation or waste load allocation may be calculated as the difference between

the mass (criteria multiplied by flow) leaving a segment minus the mass entering the segment (criteria multiplied by flow) from all sources plus instream assimilation.

(d) The waste load allocation (WLA) for total phosphorus and ammonia-nitrogen for Unified Sewerage Agency of Washington County is determined by subtracting the sum of the calculated load at Rood Road and Rock Creek from the calculated load at Farmington.

(e) Subject to the approval of the Environmental Quality Commission, the Director may modify existing waste discharge permits for the Unified Sewerage Agency of Washington County and allow temporary additional waste discharges to the Tualatin River provided the Director finds that facilities allowed by the modified permit are not inconsistent and will not impede compliance with the June 30, 1993 date for final compliance and the Unified Sewerage Agency is in compliance with the Commission approved program plan.

[(e) The Director may issue new waste discharge permits containing additional waste load allocations and approve nonpoint source activities containing additional load allocations for total phosphorus and ammonia-nitrogen provided the Director finds that the concentrations specified in sections (a) and (b) will not be exceeded.]

(f) Within 90 days of the adoption of these rules, the Unified Sewerage Agency of Washington County shall submit a program** plan

and time schedule to the Department describing how and when the Agency will modify its sewerage facilities to comply with this rule. The program plan shall include provisions and time schedule for developing and implementing a management plan under an agreement with the Lake Oswego Corporation for addressing nuisance algal growths in Lake Oswego.

- (g) Within 18 months after the adoption of these rules, Washington, Clackamas, Multnomah Counties and all incorporated cities within the Tualatin River and Oswego Lake subbasins shall submit to the Department a program plan** for controlling the quality of urban storm runoff within their respective jurisdictions to comply with the requirements of sections (a) and (b) of this rule.
- (h) After July 1, 1989, Memorandums of Agreements between the Departments of Forestry and Agriculture and the Department of Environmental Quality shall include a time schedule for submitting a program plan** for achieving the requirements of sections (a) and (b) of this rule. The program plans shall be submitted to the Department within 18 months of the adoption of this rule.
- (i) Within one hundred twenty (120) days of submittal of the program plan** and within sixty (60) days of the public hearing, the Environmental Quality Commission shall either approve or reject the plan. If the Commission rejects the plan, it shall specify a compliance schedule for resubmittal for approval and shall specify

the reasons for the rejection. If the Commission determines that an agency has not made a good faith effort to provide an approvable plan within a reasonable time, the Commission may invoke appropriate enforcement action as allowed under law. The Commission shall reject the plan if it determines that the plan will not meet the requirements of this rule within a reasonable amount of time. Before approving a final program plan, the Commission shall reconsider and may revise the June 30, 1993 date stated in sections (a), (b), and (e) of this rule. Significant components of the program plans shall be inserted into permits or memorandums of agreement as appropriate.

(j) For the purpose of assisting local governments in achieving the requirements of this rule, the Department shall:

(A) Within 90 days of the adoption of these rules, distribute initial waste load allocations and load allocations among the point source and nonpoint source management agencies in the basin. These allocations shall be considered interim and may be redistributed based upon the conclusions of the approved program plans.

(B) Within 120 days of the adoption of these rules, develop guidance to nonpoint source management agencies as to the specific content of the programs plans.

(C) Within 180 days of the adoption of these rules, propose additional rules for permits issued to local jurisdictions to address the control of storm water from new development within the Tualatin and Oswego Lake subbasins. The rules shall consider the following factors:

(i) Alternative control systems capable of complying with sections (a) and (b) of this rule:

(ii) Maintenance and operation of the control systems.

(iii) Assurance of erosion control during as well as after construction.

(D) In cooperation with the Department of Agriculture, within 180 days of the adoption of this rule develop a control strategy for addressing the runoff from container nurseries.

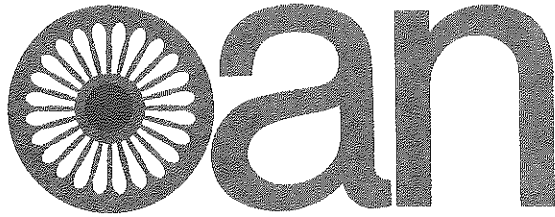
*Precise dates for complying with this rule may be conditioned on physical conditions (i.e., flow, temperature) of the receiving water and shall be specified in individual permits or memorandums of understanding issued by the Department. The Department shall consider system design flows, river travel times, and other relevant information when establishing the specific conditions to be inserted in the permits or memorandums of understanding. Conditions shall be consistent with Commission-approved program plans** and the intent of this rule.

**For the purpose of this section of the rules, program plan is defined as the first level plan for developing a waste water management system and describes the present physical and institutional infrastructure and the proposed strategy for changes including alternatives. A program plan should also include intergovernmental agreements and approvals, as appropriate, time schedules for accomplishing goals, including interim objectives, and a financing plan.

Stat. Auth.: ORS Ch. 468
Hist: DEQ 128, f. & ef. 1-21-77

DRAFT

ATTACHMENT B



2780 S.E. Harrison, Suite 103
Milwaukie, Oregon 97222

(503) 653-TREE

Oregon Association of Nurserymen, Inc.

OREGON ASSOCIATION
OF
NURSERYMEN
IRRIGATION RUN-OFF COMMITTEE

STRATEGY
for irrigation run-off

Draft of February 8, 1989

Subject to the approval of the OAN State Board of Directors
(meeting the week of February 21, 1989)

OREGON ASSOCIATION OF NURSERYMEN

S T R A T E G Y

I. Research Project O.S.U.

A. Evaluation of Nitrogen and Phosphorous cycling and water use in the Oregon Container Nursery Industry: Development of Best Management Practices (BMP) and conservation strategies.

B. Project Leader

1. Dr. John Baham
Department of Soil Science
Oregon State University
202 Strand Ag. Hall
Corvallis, OR 97331

2. Graduate Resident Assistant

C. Funding

1. \$20,825 for 1989 by The Nursery Advisory Committee, ODA

2. Second (2nd) year 1990 not funded until year of 1990

3. Enlarged scope of proposed project to meet strategy needs will require additional sources of funding

a. DEQ funds budgeted for basin study (need \$10-15,000)

b. Amount needed for expansion to be identified by Dr. Baham

D. OAN to coordinate a DEQ funded survey to be conducted by OSU.

Statistical survey group of Tualatin Basin nurseries.

1. To provide data to be used in the research project to develop a model for identifying cross section groups for individual sampling.

2. Information to be gained from survey
 - a. Fertilization practices
 - b. Irrigation practices
 - c. Size of growing area
 - d. crops grown
3. Propose to evaluate five (5) nurseries representing five (5) separate sub groups to perceive differences in management practices and their relationship to Nitrogen and Phosphorous loading in irrigation run-off, during the months of May through October.

II. Establish Best Management Practices (BMP)

"Best Management Practices (BMP) means a practice or combination of practices that is determined by a state (or designated area-wide planning agency) after problem assessment, examination of alternative practices and appropriate public participation, to be the most effective, practicable (including technological, economic and institutional considerations) means of preventing or reducing the amount of pollution generated by non point sources to a level compatible with water quality goals."

- A. Irrigation practices
- B. Irrigation run-off control practices
- C. Fertilization practices
- D. Cultural practices that influence irrigation run-off and/or nutrient loading
- E. Identification of practices with regard to Nitrogen and Phosphorous and water.
 1. OSU Research proposal objective A, literature review
 2. Grower survey to identify existing practices
- F. Two (2) year study to evaluate existing practices

III. Use of Passive Treatment Systems

- A. Vegetative buffer strips
- B. Soil attenuation
- C. Dilution basins
- D. Evaporation
- E. Artificial wetlands
- F. Existing passive treatment systems can be evaluated in OSU research project 1989 - 1990

IV. Study irrigation run-off collection systems

- A. Designs
- B. Problems
- C. Future construction guidelines
- D. Problems of retrofitting existing systems to meet future guidelines
- E. ODA/SCS to implement a one (1) year study of collection systems for the purpose of establishing guidelines for future systems.

V. Develop a database to provide background information to develop BMP and to educate the OAN membership and the rest of the nursery industry.

- A. Research resource material
- B. Industry involvement/seminars - extension bulletins
- C. OSU Department of Horticulture with funding from DEQ. Two (2) year project for one (1) graduate assistant to form database.

- VI. Industry education and resource sharing to be headed by OAN

- VII. Research outside sources of funding to aid in developing necessary means to meet goals of the program.
 - A. Tax incentives
 - B. Federal
 - C. State
 - D. Economic development sources
 - E. Cost sharing

Submit sampling program for approval by April 1, 1989
Start sampling by May 1, 1989
Complete sampling by October 31, 1989
Evaluate data and practices generating
data and submit recommendations for
BMPs by December 31, 1989.

Attachment C

BACKGROUND

The Tualatin basin is ideal for raising nursery stock. The nursery industry is a rapidly growing agricultural enterprise in the basin. One area that has experienced exceptional growth over the past 10 years is container nurseries. A container nursery is a nursery which grows stock in pots. Growing areas are first leveled and packed then drain tiles are installed to collect irrigation runoff. Normally, crushed rock is put on top of the drainage system and is used as a base in the growing area to facilitate drainage, operation of equipment, movement of stock within the nursery and maintenance of irrigation pipes during the growing season. The packed soil is usually treated with pre-emergent herbicides prior to laying the gravel.

The common irrigation practice is by sprinkler irrigation. Application of fertilizer is accomplished either by chemigation or direct application to the pots. The chemigation practice involves putting fertilizer (usually liquid) in solution and directly injecting into the irrigation sprinkling system. Direct application involves the manual application of fertilizer granules to the pots. The basic components of the fertilizer are ammonia and phosphorus. Insecticides and some herbicides are used occasionally to control plant disease and unwanted weeds during the growing of the stocks. During the irrigation operation dissolved chemicals are carried to the tile drains, without soil attenuation, and discharged directly to streams or to a recycle pond. When newly built growing areas are put into production, it is not surprising to find herbicides and sediments in the irrigation runoff discharge.

Some nurseries collect the irrigation runoff into a pond built at the lowest section of the growing area. Water is recycled from this pond to the irrigation system. Others construct the recycle pond by putting a dam across a stream. The drain tiles discharge direct into the in-stream pond and water is recycled to the irrigation system.

From time to time over the last few years the Department has received complaints concerning the quality of runoff from container nurseries. There were claims of damage to golf course greens when using irrigation water from ditches that contained runoff water from a nursery. Some complaints were validated and some were not. Upon investigating the complaints and becoming more informed about the container nursery industry, the Department became concerned about some of the practices and determined that a control program was needed.

In order to determine how wide spread the problem might be, the Department conducted a survey of nurseries statewide. The results of the survey showed that out of the 1,577 nursery growers

contacted, 819 responded to the survey and 232 were container nurseries. About 23 of the respondents indicated that they had direct discharges of irrigation runoff to public waters.

To address the irrigation runoff concerns from container nurseries, a technical advisory committee consisting of resource agencies and the industry was organized in cooperation with the Department of Agriculture. The technical advisory committee was given the charge to develop a control strategy for the container nursery and make recommendations to the Department.

Because of the enriched state of the Tualatin River, the Environmental Quality Commission adopted some special rules to address the discharge of nutrients to the subbasin. The rule, Oregon Administrative Rule (OAR) 340-41-470 states: "In order to improve the quality within the Tualatin River subbasin to meet the existing water quality standard for dissolved oxygen, and the 15 ug/l chlorophyll a action level stated in OAR 340-41-150, the following special rules for total maximum daily loads, waste load allocations, and implementation plans are established." One component of these special rules is to set load allocations and waste load allocations for pollutants that the Tualatin River subbasin can assimilate in order to improve and meet current water quality standards.

As part of these rules, the Environmental Quality Commission (EQC) established a compliance schedule for achieving the Total Maximum Daily Loads for ammonia-nitrogen and total phosphorus in the Tualatin River. The Department, in cooperation with the Oregon Department of Agriculture (ODA), has to develop a control strategy to address the runoff from container nurseries within 180 days of the adoption of the rules.

As a part of the work plan to develop a control strategy, the Department monitored the discharge of selected container nurseries to define the impact of the irrigation runoff. The data showed that runoff from some of the monitored nurseries discharging to surface streams are impacting water quality in violation of state water quality standards.

As of this writing the Oregon Association of Nurserymen, Inc. who sits in the technical advisory committee, is in the process of finalizing a recommendation for a control strategy for irrigation runoff. This proposed strategy will be presented to the next technical advisory committee meeting on February 9, 1989.

CONTROL STRATEGY ALTERNATIVES

The control strategy should accomplish two things:

1. Address the immediate water quality problems caused by container nurseries discharging to recycle ponds constructed within surface streams and not meeting water quality standards.

contacted, 819 responded to the survey and 232 were container nurseries. About 23 of the respondents indicated that they had direct discharges of irrigation runoff to public waters.

To address the irrigation runoff concerns from container nurseries, a technical advisory committee consisting of resource agencies and the industry was organized in cooperation with the Department of Agriculture. The technical advisory committee was given the charge to develop a control strategy for the container nursery and make recommendations to the Department.

Because of the enriched state of the Tualatin River, the Environmental Quality Commission adopted some special rules to address the discharge of nutrients to the subbasin. The rule, Oregon Administrative Rule (OAR) 340-41-470 states: "In order to improve the quality within the Tualatin River subbasin to meet the existing water quality standard for dissolved oxygen, and the 15 ug/l chlorophyll a action level stated in OAR 340-41-150, the following special rules for total maximum daily loads, waste load allocations, and implementation plans are established." One component of these special rules is to set load allocations and waste load allocations for pollutants that the Tualatin River subbasin can assimilate in order to improve and meet current water quality standards.

As part of these rules, the Environmental Quality Commission (EQC) established a compliance schedule for achieving the Total Maximum Daily Loads for ammonia-nitrogen and total phosphorus in the Tualatin River. The Department, in cooperation with the Oregon Department of Agriculture (ODA), has to develop a control strategy to address the runoff from container nurseries within 180 days of the adoption of the rules.

As a part of the work plan to develop a control strategy, the Department monitored the discharge of selected container nurseries to define the impact of the irrigation runoff. The data showed that runoff from some of the monitored nurseries discharging to surface streams are impacting water quality in violation of state water quality standards.

As of this writing the Oregon Association of Nurserymen, Inc. who sits in the technical advisory committee, is in the process of finalizing a recommendation for a control strategy for irrigation runoff. This proposed strategy will be presented to the next technical advisory committee meeting on February 9, 1989.

CONTROL STRATEGY ALTERNATIVES

The control strategy should accomplish two things:

1. Address the immediate water quality problems caused by container nurseries discharging to recycle ponds constructed within surface streams and not meeting water quality standards.

2. Define the problems associated to container nurseries as related to the waste load allocations and the Tualatin subbasin Total Maximum Daily Load and how the nutrient loads from the nurseries will be reduced to the minimum practicable.

For the immediate water quality problems, negotiations with the sources involved should be initiated immediately. It will require building new recycle ponds and diverting drain tiles to new ponds. Other solutions may include technology based effluent limitations or implementation of Best Management Practices to minimize water quality problems. This control strategy could be implemented through the permit program or by stipulated order from the Commission. The permit or the stipulated order can be written with a step by step reduction of pollutant discharges until the required waste load allocation is achieved. Negotiations will be between the problem source and the Department.

There are a number of ways of regulating the container nurseries in order to meet the requirements of the Total Maximum Daily Loading.

A permit program may be implemented to address the runoff concerns. The permit can be tailored to the specific needs of a particular source. A load allocation can be assigned to the permitted source according to its needs and the assimilative capacity of the stream receiving the discharge. If the source would not be able to comply with the existing TMDL rule, a compliance schedule can be negotiated and included in the permit.

The permit may include also Best Management Practices (BMP). Best Management Practices means a practice or combination of practices or structures that are determined to be most practicable means of preventing or reducing the amount of pollutant from a specific source to a level that is compatible with water quality goals. Some BMPs can be practiced industry wide. Other BMPs that will be included in the permit may be site specific. The success of this strategy can be measured immediately through the monitoring requirement of the permit.

The Department is currently implementing the National Pollutant Discharge Elimination System (NPDES) and the Water Pollution Control Facility (WPCF) permit program. Some minor changes in definitions in the permit rules has to be made to accommodate the permitting of irrigation return flows. The permit program provides individual responsibility of complying with the requirements of the TMDL rule.

Currently, there is a resistance within the industry to be regulated under a permit program. The container nursery industry view the permit program as an added cost to their operation. The Department is currently implementing the permit program through user fees. However, the fee schedule is structured depending on the category of the permitted discharge. Normally fees for individual NPDES or WPCF permits are higher than general permits. General permits are issued to certain categories of minor sources

whose activities or operations are substantially similar and discharge similar types of wastes. General permits require the same monitoring requirements, effluent limitations and operating conditions. Otherwise, individual permits are issued.

The non-permitting option requires the determination of BMP techniques applicable to all aspects of container nursery operations. It must be flexible enough that it could be applied to any operation. BMPs can be determined by the industry itself or resource agencies who historically interface with the industry such as the Department of Agriculture or the Soil Conservation Service or any institution that may have interest in the industry. BMPs may include irrigation practices, irrigation runoff control practices, fertilization, operational practices that may influence irrigation runoff or nutrient loading of nearby streams.

In order to measure the success of attaining compliance with the requirements of the TMDL, BMPs need to be monitored and evaluated. A management agency has to be designated to implement this strategy. The designated management agency has to make sure that BMPs are implemented within the container nursery industry along with a time schedule. A monitoring program and a process of upgrading BMPs are necessary to insure water quality requirements are being met.

The Department of Agriculture is the agency designated to see that agricultural operations achieve the required TMDLs. A memorandum of agreement between the Department of Agriculture and the Department would assure that BMPs are being applied. The agreement would have to include designated institutions to implement the control strategy, time schedule of implementation, monitoring and evaluation program, resource requirements and areas of responsibilities.

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Attachment C

BACKGROUND

The Tualatin basin is ideal for raising nursery stock. The nursery industry is a rapidly growing agricultural enterprise in the basin. One area that has experienced exceptional growth over the past 10 years is container nurseries. A container nursery is a nursery which grows stock in pots. Growing areas are first leveled and packed then drain tiles are installed to collect irrigation runoff. Normally, crushed rock is put on top of the drainage system and is used as a base in the growing area to facilitate drainage, operation of equipment, movement of stock within the nursery and maintenance of irrigation pipes during the growing season. The packed soil is usually treated with pre-emergent herbicides prior to laying the gravel.

The common irrigation practice is by sprinkler irrigation. Application of fertilizer is accomplished either by chemigation or direct application to the pots. The chemigation practice involves putting fertilizer (usually liquid) in solution and directly injecting into the irrigation sprinkling system. Direct application involves the manual application of fertilizer granules to the pots. The basic components of the fertilizer which are limited by waste load allocation in the Tualatin River Oswego Lake subbasin are ammonia and phosphorus. Insecticides and some herbicides are used occasionally to control plant disease and unwanted weeds during the growing of the stocks. During the irrigation operation dissolved chemicals are carried to the tile drains, without soil attenuation, and discharged directly to streams or to a recycle pond. When newly built growing areas are put into production, it is not surprising to find herbicides and sediments in the irrigation runoff discharge.

Some nurseries collect the irrigation runoff into a pond built at the lowest section of the growing area. Water is recycled from this pond to the irrigation system. Others construct the recycle pond by putting a dam across a stream. The drain tiles discharge direct into the in-stream pond and water is recycled to the irrigation system.

From time to time over the last few years the Department has received complaints concerning the quality of runoff from container nurseries. There were claims of damage to golf course greens when using irrigation water from ditches that contained runoff water from a nursery. Some complaints were validated and some were not. Upon investigating the complaints and becoming more informed about the container nursery industry, the Department became concerned about some of the practices and determined that a control program was needed.

In order to determine how wide spread the problem might be, the Department conducted a survey of nurseries statewide. The results

of the survey showed that out of the 1,577 nursery growers contacted, 819 responded to the survey and 232 were container nurseries. About 23 of the respondents indicated that they had direct discharges of irrigation runoff to public waters.

To address the irrigation runoff concerns from container nurseries, a technical advisory committee consisting of resource agencies and the industry was organized in cooperation with the Department of Agriculture. The technical advisory committee was given the charge to develop a control strategy for the container nursery and make recommendations to the Department.

Because of the enriched state of the Tualatin River, the Environmental Quality Commission adopted some special rules to address the discharge of nutrients to the subbasin. The rule, Oregon Administrative Rule (OAR) 340-41-470 states: "In order to improve the quality within the Tualatin River subbasin to meet the existing water quality standard for dissolved oxygen, and the 15 ug/l chlorophyll a action level stated in OAR 340-41-150, the following special rules for total maximum daily loads, waste load allocations, and implementation plans are established." One component of these special rules is to set load allocations and waste load allocations for pollutants that the Tualatin River subbasin can assimilate in order to improve and meet current water quality standards.

As part of these rules, the Environmental Quality Commission (EQC) established a compliance schedule for achieving the Total Maximum Daily Loads for ammonia-nitrogen and total phosphorus in the Tualatin River. The Department, in cooperation with the Oregon Department of Agriculture (ODA), has to develop a control strategy to address the runoff from container nurseries within 180 days of the adoption of the rules.

As a part of the work plan to develop a control strategy, the Department monitored the discharge of selected container nurseries to define the impact of the irrigation runoff. The data showed that runoff from some of the monitored nurseries discharging to surface streams are impacting water quality in violation of state water quality standards.

The Oregon Association of Nurserymen, Inc. have representation on the technical advisory committee. They have assigned a subcommittee to work on the control strategy. To date, their strategy provides a program to evaluate container nursery practices and to determine which are the best management practices (BMPs). The part of the strategy that is missing is the methodology for implementing those practices throughout the subbasin. The Oregon Department of Agriculture is the designated agency to implement the strategy within their implementation plan for all of agriculture throughout the subbasin.

CONTROL STRATEGY ALTERNATIVES

The control strategy should accomplish two things:

1. Address the immediate water quality problems caused by container nurseries discharging to recycle ponds constructed within surface streams and not meeting water quality standards.
2. Define the problems associated to container nurseries as related to the waste load allocations and the Tualatin subbasin Total Maximum Daily Load and how the nutrient loads from the nurseries will be reduced to the minimum practicable.

For the immediate water quality problems, negotiations with the sources involved should be initiated immediately. It will require building new recycle ponds and diverting drain tiles to new ponds. Other solutions may include technology based effluent limitations or implementation of Best Management Practices to minimize water quality problems. This control strategy could be implemented through the permit program or by stipulated order from the Commission. The permit or the stipulated order can be written with a step by step reduction of pollutant discharges until the required waste load allocation is achieved. Negotiations will be between the problem source and the Department.

There are a number of ways of regulating the container nurseries in order to meet the requirements of the Total Maximum Daily Loading.

A permit program may be implemented to address the runoff concerns. The permit can be tailored to the specific needs of a particular source. A load allocation can be assigned to the permitted source according to its needs and the assimilative capacity of the stream receiving the discharge. If the source would not be able to comply with the existing TMDL rule, a compliance schedule can be negotiated and included in the permit.

The permit may include also Best Management Practices (BMP). Best Management Practices means a practice or combination of practices or structures that are determined to be most practicable means of preventing or reducing the amount of pollutant from a specific source to a level that is compatible with water quality goals. Some BMPs can be practiced industry wide. Other BMPs that will be included in the permit may be site specific. The success of this strategy can be measured immediately through the monitoring requirement of the permit.

The Department is currently implementing the National Pollutant Discharge Elimination System (NPDES) and the Water Pollution Control Facility (WPCF) permit program. Some minor changes in definitions in the permit rules has to be made to accommodate the permitting of irrigation return flows. The permit program provides individual responsibility of complying with the requirements of the TMDL rule.

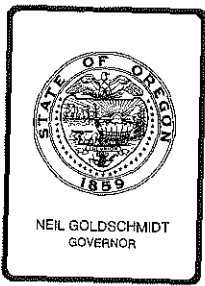
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operation. The Department is currently implementing the permit program through user fees. However, the fee schedule is structured depending on the category of the permitted discharge. Normally fees for individual NPDES or WPCF permits are higher than general permits. General permits are issued to certain categories of minor sources whose activities or operations are substantially similar and discharge similar types of wastes. General permits require the same monitoring requirements, effluent limitations and operating conditions. Otherwise, individual permits are issued.

The non-permitting option requires the determination of BMP techniques applicable to all aspects of container nursery operations. It must be flexible enough that it could be applied to any operation. BMPs can be determined by the industry itself or resource agencies who historically interface with the industry such as the Department of Agriculture or the Soil Conservation Service or any institution that may have interest in the industry. BMPs may include irrigation practices, irrigation runoff control practices, fertilization, operational practices that may influence irrigation runoff or nutrient loading of nearby streams.

In order to measure the success of attaining compliance with the requirements of the TMDL, BMPs need to be monitored and evaluated. A management agency has to be designated to implement this strategy. The designated management agency has to make sure that BMPs are implemented within the container nursery industry along with a time schedule. A monitoring program and a process of upgrading BMPs are necessary to insure water quality requirements are being met.

The Department of Agriculture is the agency designated to see that agricultural operations achieve the required TMDLs. A memorandum of agreement between the Department of Agriculture and the Department would assure that BMPs are being applied. The agreement would have to include designated institutions to implement the control strategy, time schedule of implementation, monitoring and evaluation program, resource requirements and areas of responsibilities.



Department of Environmental Quality

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

WORK SESSION
REQUEST FOR EQC DISCUSSION

Meeting Date: March 2, 1989
Agenda Item: 4
Division: Water Quality
Section: Industrial Waste

SUBJECT:

Proposed Rules Requiring Control of Stormwater Discharges from New Development in the Tualatin River Subbasin.

PURPOSE:

The proposed rules are intended to assure that new development in the Tualatin River subbasin is provided with facilities to control and reduce the level of pollutants discharged until local jurisdictions develop and implement their own program plans for controlling pollutants in urban runoff.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)

- Authorize Rulemaking Hearing
 - Proposed Rules (Draft) Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Draft Public Notice Attachment

- Adopt Rules
 - Proposed Rules (Final Recommendation) Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Public Notice Attachment

- Issue Contested Case Decision/Order
 - Proposed Order Attachment

- Other: (specify)

DESCRIPTION OF REQUESTED ACTION:

The Department is proposing rules for the treatment and control of urban stormwater runoff in the Tualatin River Subbasin. The proposed rules will:

1. Require that interim stormwater control systems be installed during construction activities in order to control sediment runoff.
2. Require residential, commercial, or industrial developments involving 20 acres or more to submit an approvable plan for construction and maintenance of permanent stormwater treatment and control facilities as a condition of a preliminary plat or site approval.
3. Require subdivisions and industrial or commercial developments of less than 20 acres to be included in a local improvement district established to provide for the construction and maintenance of permanent stormwater treatment and control systems. Single family residence construction is exempt from this requirement.
4. Refer to best management practices (BMPs) already established for the treatment and control of urban stormwater but provide for others to be included as they are developed.
5. Require that permanent stormwater treatment systems achieve a removal efficiency of 65% for phosphorus and 85% for sediment.
6. Require a registered professional engineer to certify that the stormwater control facilities proposed will achieve the required removal efficiencies for phosphates and sediment.
7. Require a bond posted by the developer and placed with the jurisdiction to assure that stormwater control facilities are properly constructed.
8. Allow the Director to grant an exemption of the requirement to construct a permanent stormwater treatment system if the development will be part of an area-wide system.
9. Requires owners to get a permit from the Department for construction and operation of stormwater control and treatment systems.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: _____ Attachment ___
 Enactment Date: _____
___ Statutory Authority: _____

- Amendment of Existing Rule: _____ Attachment A
 Implement Delegated Federal Program: _____ Attachment _____
_____ Other: Attachment _____
 Time Constraints:

OAR 340-41-470(3)(j)(C) requires the Department to propose rules for permits to local jurisdictions to address the control of storm water from new development within the Tualatin subbasin by March 8, 1989 (180 days from September 9, 1989).

DEVELOPMENTAL BACKGROUND:

- Advisory Committee Report/Recommendation Attachment _____
 Hearing Officer's Report/Recommendations Attachment _____
 Response to Testimony/Comments Attachment _____
 Prior EQC Agenda Items: (list) Attachment _____
 Other Related Reports/Rules/Statutes: Attachment _____
 Supplemental Background Information: Attachment B

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

1. Developers and builders will be affected because the proposed rules will:
 - a. require additional review by the local jurisdictions of their developments plans,
 - b. impose increased costs for engineering services and for construction of stormwater control systems,
 - c. in the case of commercial and industrial developments, impose increased costs for operating and maintaining stormwater control facilities, and
 - d. reduce the area of land available for development because of space taken by the stormwater control facilities.
2. Local jurisdictions will be affected because the proposed rules will:
 - a. require additional staffing and other resources to review development plans to

assure stormwater control systems are included, and

b. in some cases, require operation and maintenance of stormwater control systems serving new subdivisions.

PROGRAM CONSIDERATIONS:

If the proposed rules are adopted as drafted, the Department should not have to expend a significant amount of resources once the permits have been drafted and once the local jurisdictions get staffed up to handle the requirements. The time associated with permit processing can be reduced to a few days if the Department issues a general permit which could adequately cover most applications. This assumes that there are few permit applications for unconventional stormwater control systems. Such applications could take several weeks of staff resource to review the application and prepare and issue a permit because the unconventional technology would need to be evaluated.

The Department believes, however, that once the rules take effect, there will be a number of developers caught unaware. Resolving problems resulting from these people will be time consuming. Further, the rules may make some developments infeasible. Such problems will also be time-consuming because it is likely that the developer will attempt to obtain relief in some form from local and state officials.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Not do anything at this time. The counties within the Tualatin and Oswego Lake subbasins are responsible for putting together a storm water management plan such that the waste load allocations for storm water meet the subbasin standards. This alternative has the advantage of putting the responsibility back on the counties without committing Department resources. The disadvantage is that, until the counties get their programs designed and implemented, development will continue to occur without any thought to designing for stormwater control and treatment.

2. The Department considered regulating all development in the basin with a simple permit program. This alternative could be implemented immediately so that new development could be controlled until such time as the counties complete and implement their plans. This alternative puts all of the burden upon the Department to control storm runoff from all of the new developments and to review and approve each storm water control and treatment system.

3. The third alternative is to draft rules which establish some basic criteria for developers to follow until such time as the counties have implemented their plans. The process would be regulated by a simplified permit process. However, the burden of approving the development would remain with the local planning jurisdictions. Since the local jurisdictions do not yet have the expertise to review and approve plans for stormwater control and treatment systems, reliance will be placed upon the requirement that facilities be designed in accordance with known technology and that all plans be submitted by professional engineers. This alternative puts some burden upon the Department because of the permitting requirement but the primary approval process will remain with the local jurisdiction. This is the alternative which the Department considers most appropriate and upon which the draft rules are based.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Director recommends that the Commission authorize the Department to proceed with a hearing on the rules as proposed, based upon the following:

1. The proposed rules meet the requirements specified in the Tualatin TMDL rule [OAR 340-41-470(3)]
2. The proposed rules will provide a practicable and effective approach to controlling storm water quality on new development in the Tualatin subbasin until the program plans are developed and implemented.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The proposed rules are different from those anticipated by OAR 340-41-470(3)(j)(C) in that it specified that the permit be issued to the local jurisdiction. The proposed rules would issue a permit for a specific development which may be under the control of a jurisdiction, but could also be under the control of a private party. Otherwise, the proposed rules are consistent with the requirements of the rule adopted for the Tualatin TMDL.

ISSUES FOR COMMISSION TO RESOLVE:

1. When should the rules go into effect? If the rules go into effect when they are filed with the Secretary of State (usually less than a week after the EQC adopts them), some developers will have to redo their plans. From their perspective, this may be unreasonable. On the other hand, the fact that the Commission is considering such rules, may cause

developers to rush their projects in order to have their projects approved before the rules go into effect.

2. The Department does not intend for the jurisdictions to review and approve the design criteria for the storm water control systems. Design will be based on already developed criteria, but will rely on the designer being capable of applying that criteria appropriately. The rules do require that the plans be certified by a registered professional engineer. The Department believes that the expertise of engineering professionals should assure proper design.

3. The proposed rules require installation of a stormwater control system capable of providing a certain removal efficiency as determined by the manual Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs, Metropolitan Washington Council of Governments. Is this acceptable assurance or should the rules or permit require either a given removal efficiency or effluent concentration as performance standards instead of only a design criteria? Performance standards would impose a greater level of responsibility, and also uncertainty, on the developer. If the Commission believes that a concentration limit should be specified in the rules or in the permit, a concentration of 0.07 mg/l would seem to be the most logical since the phosphorus TMDL is based on this concentration. Even if a system met the concentration limit of 0.07mg/l, however, this is no guarantee that the load allocation for the particular urban area would be met. Concentrations of phosphorus less than 0.07 mg/l may be necessary on new development to compensate for higher concentrations coming from older existing development that may not be able to reduce phosphorus concentrations as easily as the newer developments.

4. In order for the subbasin to achieve the TMDL, each load allocation and waste load allocation must be met. This will require, in the urban areas, controls for both existing development as well as new development. Controls on new development will contribute to achieving the load allocations, but it is most likely that additional controls will also be required. Developers may argue that, if they provide approved controls when their development is constructed, any additional controls should be imposed on, or at least paid for, by existing development only. At this time, no one knows what additional controls will be required in the approved program plans. The Department believes it would be foolish to commit to developers that the controls imposed by this rule will be all that will ever be required.

5. The Department believes it is likely that the rules as proposed will, in a few cases, cause some developments to be no longer feasible. Developments would be infeasible if the costs of providing stormwater control facilities were excessive or if

the systems consumed too much of the area available for development. The Department believes that there are a sufficient number of alternative stormwater systems such that total interference with development will be rare. Nevertheless, they could occur. Should the rules allow for exemptions where development is not found feasible? If an opportunity for exemption is considered appropriate, what should the criteria be? If the Department or Commission is determined the appropriate body for considering an exemption, this could consume substantial resources even if they are rare.

6. The proposed rules do allow an exemption from construction of a stormwater treatment system for a development if an area-wide stormwater control system is proposed. In some cases, an area-wide system may be more efficient use of resources. If both an individual treatment system and an area-wide system are practicable, should the Department hold out for the area-wide system? The proposed rules would not allow the Department or the local jurisdiction to do this.

7. To what extent should the Department oversee approvals made by the local jurisdiction? At this stage, because of limited resources, the Department would not wish to provide an oversight role. The Department believes it is in the local jurisdiction's best interest to assure optimum design, otherwise the jurisdiction will face even more troublesome burdens in trying to achieve their load allocations.

INTENDED FOLLOWUP ACTIONS:

Propose the draft rules to the Commission.

Approved:

Section: 

Division: 

Director: 

Report Prepared By: Charles K. Ashbaker

Phone: 229-5325

Date Prepared: February 1, 1989

cka:cka
DEQ.TR4
February 14, 1989

Attachment A

DRAFT RULES

340-41-455 (3) Non-point source pollution control in Tualatin River sub-basin:

(a) For residential, commercial, or industrial developments, no preliminary plat, site plan, or building permit shall be approved by any jurisdiction in this sub-basin unless the plat or plan includes interim stormwater control facilities to be constructed prior to land development and to be operated during construction to control the discharge of sediment in the stormwater runoff. Any sediment ponds constructed shall have sufficient storage to provide a two (2) hour retention for a three (3) inch rainfall event and shall be constructed with an emergency overflow to prevent erosion or failure of the containment dike. Where sediment ponds are not practicable, other sediment control facilities may be used, such as hay bales or other filtration media, provided they are arranged in a manner which will provide equivalent sediment control.

(b) For subdivisions, commercial developments, or industrial developments, twenty (20) acres or over in total area, no preliminary plat or site plan shall be approved by any jurisdiction in this sub-basin unless the requirements in paragraphs (A) through (C) are met.

(A) The preliminary plat or site plan shall include permanent stormwater control facilities capable of achieving 65% removal of phosphorus and 85% of sediment from a one and one-half (1 1/2) inch summertime storm event based upon the design criteria stated in Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs. The preliminary plat or site plan proposed by the developer shall include conceptual plans and a certification prepared by a registered, professional engineer that the proposed stormwater control facilities are capable of achieving the required treatment efficiencies.

(B) An agreement must be consummated between the developer and the jurisdiction that assures that the permanent stormwater control facilities will be operated and maintained in perpetuity. The agreement shall define who shall be responsible for obtaining a permit from the Department as required in subsection (d) of this section.

(C) A bond, or equivalent security acceptable to the jurisdiction, shall be posted by the developer with the jurisdiction that assures that the storm water control facilities are constructed according to the plans established in the preliminary plat or site plan approval.

(c) An exception to subsection (b) may be granted by the Director subject to the following requirements:

(A) An area-wide stormwater control system will be provided to control the release of pollutants in the storm runoff;

(B) The development or subdivision would be served by the area-wide stormwater control system;

(C) Land necessary for the stormwater control facilities has been acquired;

(D) An area-wide stormwater control plan has been developed and approved by the Department of Environmental Quality. The plan shall include a time schedule for ensuring the facilities are installed before or concurrently with the development; and

(E) A permit has been issued by the Department to the local jurisdiction assuring adequate operation and maintenance of the stormwater control facilities.

(d) Any person who constructs or operates a stormwater control facility required by subsection (b) of this section shall have obtained a permit from the Department of Environmental Quality prior to construction.

(e) For any residential, commercial, or industrial development on parcels less than twenty (20) acres, no final plat shall be approved, for residential subdivisions, or final occupancy permit issued for industrial or commercial developments unless the development is included in a local improvement district specifically established to construct, operate, and maintain permanent stormwater control facilities capable of serving that development. The district shall have the legal authority to construct, operate, and maintain stormwater control facilities and to collect the necessary revenues to finance such activities.

(f) Single family residences outside urban growth boundaries and on lots of five (5) acres or more are exempt from the requirements in section (a).

(g) Single family residences are exempt from sections (b) and (e).

(h) As local jurisdictions adopt a program equivalent to those established in this section, these requirements will no longer apply to the development in that jurisdiction.

(i) The developer may choose an alternative design criteria for a permanent stormwater control facility required that is not

found in the manual Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs. In this case, a preliminary plat or site plan shall not be approved by any jurisdiction in the Tualatin River sub-basin unless the developer applies for and receives a permit from the Department. Any application for permit for a stormwater control facility located in the Tualatin River sub-basin shall include necessary technical documentation to support that the proposed system will achieve 65% removal of phosphorus and 85% removal of sediment.

(j) As the Department obtains additional information on appropriate BMPs for controlling stormwater quality, the Director may add additional BMPs and associated design criteria to those allowed in the manual Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs.

Attachment B

BACKGROUND

PROPOSED REGULATIONS TO ADDRESS THE QUALITY OF STORMWATER RUNOFF FROM NEW DEVELOPMENT IN THE TUALATIN RIVER SUBBASIN

At the Commission's September 9, 1988, meeting, regulations were adopted that established total daily maximum daily loads (TMDLs) for phosphorus and ammonia-nitrogen in the Tualatin River Subbasin. In December, 1989, as required by the regulations, the Department established waste load allocations and load allocations based upon the TMDLs. The waste load allocations determine how much of the TMDL that are given to each point source, sewage treatment plants in the case of the Tualatin subbasin. The load allocations are the portions of the TMDL that are given to the various nonpoint sources in the basin. Nonpoint sources for which load allocations were given are urban runoff, agriculture, and forestry. As a result, for each major stream contributing to the Tualatin River, each city and county has a load allocation, stated in pounds per day, that it may discharge.

The regulations also included requirements for both the Department and the cities and counties in the subbasin. For the purpose of this work session item, there are two requirements of importance:

1. Oregon Administrative Rule (OAR) 340-41-470(3)(g) states: "within 18 months after the adoption of these rules, Washington, Clackamas, Multnomah, Counties and all incorporated cities within the Tualatin River and Oswego Lake subbasins shall submit to the Department a program plan for controlling the quality of urban storm runoff within their respective jurisdictions to comply with the requirements of sections (a) and (b) of this rule."

2. OAR 340-41-470(3)(j)(C) states: "Within 180 days of the adoption of these rules, (the Department will) propose additional rules for permits issued to local jurisdictions to address the control of storm water from new development within the Tualatin and Oswego Lake subbasins. The rules shall consider the following factors:

- (i) Alternative control systems capable to complying with sections (a) and (b) of this rule;
- (ii) Maintenance and operation of the control systems;
- (iii) Assurance of erosion control during as well as after construction."

In developing the total maximum daily load (TMDL) for phosphorus, the Department recognized that the TMDL could not be met merely

with more stringent control of sewage treatment plant discharges. The control of phosphorus from nonpoint sources would also have to be provided. One of the significant nonpoint sources of phosphorus is urban runoff. The rules addressed this issue by requiring the counties and cities in the subbasin to develop and submit program plans to control the quality of storm water in their respective jurisdictions (item 1. above).

There was also a concern that storm water quality problems would continue to increase during the interim period while the nonpoint source program plans were being developed and implemented. It was felt that some steps should be taken during the interim to control or at least minimize the increase in pollutants resulting from new development. The question was how could this be best done? Representatives of local government did not feel that they had the technical expertise or the institutional capabilities or resources to quickly and legally adopt ordinances to address the quality of storm water for the interim period. Further, it was felt that interim programs developed separately and differently by each entity would lead to confusion of everyone involved.

The Department believed that it did have the technical expertise, but it did not have the resources to deal directly with individual development proposals in the subbasin. Further, the Department felt that service to developers and builders could be best provided at the local level rather than the state level. The rule for interim storm water control on the Tualatin as finally adopted was intended to deal with the concerns of both local entities and the Department.

The Department has researched the available technologies that have been developed around the country for treating and controlling storm water runoff. A manual produced by the Department of Environmental Programs, Metropolitan Washington Council of Governments entitled Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs, July, 1987, contains a reasonably comprehensive list of technologies that have been used nationally. The manual lists design criteria, siting and operational considerations, performance expectations and other good information on stormwater treatment and control systems.

The capabilities of storm water control systems depend on a number of factors including the soils where the system is to be located and the amount of area to be served by the system. In general the soils in the Tualatin basin tend to be very fine textured (clays and silts) and, as a result, severely restrict infiltration of water into the ground. According to the manual Controlling Urban Runoff, systems that function well in soils with fine textures must serve surface areas greater than twenty acres. As a result, there are no available technologies that are capable of providing good removals of phosphorus and sediment that can serve smaller development in the Tualatin basin.

The Department has developed proposed rules to deal with stormwater discharges from new development in the subbasin on an interim basis. The proposed rules:

1. Require that proposed storm water systems be addressed at the first step of obtaining local approval for residential subdivisions as well as industrial or commercial developments.

2. Require that all construction activities, except single family residences on large lots outside urban growth boundaries, provide interim stormwater controls to control sediment during construction.

3. Require residential, commercial, or industrial developments involving 20 acres or more to submit an approvable plan for construction and maintenance of permanent stormwater treatment and control as a condition of plat or site approval.

4. Utilizes best management practices (BMPs) already developed. These BMPs and associated design criteria and other information are included a manual entitled Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs.

5. Require that a registered professional engineer certify that the stormwater facilities included in the plans submitted to the jurisdiction will meet required removal efficiencies based on criteria in the manual.

6. Specify a removal efficiency of 65% for phosphorus and 85% for sediment.

7. Require a bond posted by the developer and placed with the jurisdiction to assure that stormwater control facilities are properly constructed.

8. Require an agreement between the developer and the jurisdiction to assure operation and maintenance pursuant to a permit issued by the Department.

9. Allow the Director to grant an exception, subject to specific criteria, for certain developments if an area-wide stormwater control system will be provided.

10. Provide a mechanism for a developer to propose alternative BMPs to those outlined in the manual Controlling Urban Runoff.

11. Provide a mechanism for the Director to add BMPs and associated design criteria to those specified in the manual.

From the perspective of either the Department, local jurisdiction, or a developer, there are numerous advantages and disadvantages to the proposed rules. The rules certainly add to the burdens and costs of the developer in obtaining approval for a development. The Department has tried to keep this to a minimum by using, as much as practicable, the building and planning approval mechanisms already in place at the local government level. The Department's

role in issuing permits should impose only very minimal effort and cost on the developer. The Department is considering issuing a general permit in order to reduce the paperwork and time involved in the permitting process for both the applicant and the Department.

The local jurisdictions will have additional issues to address in reviewing development proposals. Some jurisdictions do not have adequate staff to deal with current planning and building requirements. The Department has tried to reduce the amount of additional work by putting the responsibility for assuring a proper design on the designer by requiring that individual to be a registered, professional engineer and to certify that the proposed facilities are capable of meeting the removal efficiency criteria in the manual Controlling Urban Runoff.

The cost of development in the basin will increase as a result of these proposed rules. The cost of providing stormwater control facilities when the development is constructed, however, should be less than if the stormwater control facilities must be retrofitted after construction is completed.

Development may be curtailed in certain areas until permanent stormwater control systems can be designed and constructed or until a local improvement district can be organized and plans laid to address the stormwater issues in the area.

Another disadvantage of the proposed rules is that, for the development over 20 acres, the stormwater control systems are only required to meet a given removal efficiency for phosphorus and sediment. Construction and operation of these systems, in themselves, do not assure that the load allocations can be met. The required efficiencies, to be sure, are as high as one can reasonably expect, but there is no way, until the program plans are complete, to verify that further controls will not be necessary. It may be necessary that other steps be required in addition to providing stormwater control systems. Conceivably, such steps could include a ban on phosphate-containing detergents, restrictions on the application of lawn and garden fertilizers, or other measures. The Department believes that such steps should be considered and defined in the program plans that are being prepared by the local jurisdictions.

The Department could specify a concentration limit to be met by each stormwater control system. What concentration should be specified? One could use 0.07 mg/l of phosphorus because this is the concentration upon which the phosphorus TMDL was based. Even with the removal efficiencies proposed in this rule, additional restrictions as discussed above may be necessary to meet a 0.07 mg/l phosphorus limit. In addition, concentrations of phosphorus below 0.07 may be necessary on new development to compensate for higher concentrations coming from older development that may not be able to reduce phosphorus concentrations as easily as the newer development. The Department believes that concentration limits should be set to address the actual load allocations and this

cannot be done until the program plans are developed. Consequently, removal efficiencies are believed to be the most appropriate design and performance criteria at this time.

There are several alternatives that could be considered:

1. Do not require stormwater control systems to be installed until the program plans are developed and implemented. Instead, developers could contribute money to a sinking fund to construct the facilities on an area-wide basis once the program plan defines what those facilities might be. This approach assumes that land would be available for such facilities and also allows a continued increase in pollution to occur while the program plans are being developed and implemented. This approach, however, would assure that the facilities being constructed would be consistent with the load allocations established for the subbasin.

2. The rules could require that each development be approved by the Department after a review of the impact upon the load allocation. Such a system would probably require that an individual permit be issued in each case. Such an approach would be time-consuming for the developer and would impose significant resource commitments on the Department.

3. The rules could require that the local jurisdictions develop a system similar to that proposed in alternative 2 above. As previously stated, the jurisdictions currently do not have the expertise and would be unable to obtain such expertise for, at least several months. Further, the jurisdiction would have to develop ordinances in order to implement such a program. This would also take considerable time.

There are other issues for the Commission to consider concerning these rules:

1. When should the rules go into effect? If the rules go into effect when they are filed with the Secretary of State (usually less than a week after the EQC adopts them), some developers will have to redo their plans. From their perspective, this may be unreasonable. On the other hand, the fact that the Commission is considering such rules, may cause developers to rush their projects in order to have their projects approved before the rules go into effect.

2. The Department does not intend for the jurisdictions to review and approve the design criteria for the storm water control systems. Design will be based on already developed criteria, but will rely on the designer being capable of applying that criteria appropriately. The rules do require that the plans be certified by a registered professional engineer. The Department believes that professional expertise should assure proper design.

3. The proposed rules require installation of a stormwater control system capable of providing a certain removal efficiency as determined by the manual Controlling Urban Runoff. Is this acceptable assurances or should the rules or permit require either a given removal efficiency or effluent concentration as performance standards instead of only a design criteria? Performance standards would impose a greater level of responsibility, and also uncertainty, on the developer. If the Commission believes that a concentration limit should be specified in the rules or in the permit, a concentration of 0.07 mg/l would seem to be the most logical since the phosphorus TMDL is based on this concentration. Even if a system met the concentration limit of 0.07mg/l, however, this is no guarantee that the load allocation for the particular urban area would be met. Concentrations of phosphorus less than 0.07 mg/l may be necessary on new development to compensate for higher concentrations coming from older development that may not be able to reduce phosphorus concentrations as easily as the newer developments.

4. In order for the subbasin to achieve the TMDL, each load allocation and waste load allocation must be met. This will require, in the urban areas, controls for both existing development as well as new development. Controls on new development will contribute to achieving the load allocations, but it is most likely that additional controls will also be required. Developers may argue that, if they provide approved controls when their development is constructed, any additional controls should be imposed on, or at least paid for, by existing development only. At this time, no one knows what additional controls will be required in the approved program plans. The Department believes it would be foolish to commit to developers that the controls imposed by this rule will be all that will ever be required.

5. The Department believes it is likely that the rules as proposed will, in a few cases, cause some developments to be no longer feasible. Developments would be infeasible if the costs of providing stormwater control facilities were excessive or if the systems consumed too much of the area available for development. The Department believes that there are a sufficient number of alternative stormwater systems such that total interference with development will be rare. Nevertheless, they could occur. Should the rules allow for exemptions where development is not found feasible? If an opportunity for exemption is considered appropriate, what should the criteria be? If the Department or Commission is determined the appropriate body for considering an exemption, this could consume substantial resources even if they are rare.

6. The proposed rules do allow an exemption from construction of a stormwater treatment system for a development if an area-wide stormwater control system is proposed. In some cases, an area-wide system may be more efficient use of resources. If both an individual treatment system and an area-wide system are practicable, should the Department hold out for the area-wide

system? The proposed rules would not allow the Department or the local jurisdiction to do this.

7. To what extent should the Department oversee approvals made by the local jurisdiction? At this stage, because of limited resources, the Department would not wish to provide an oversight role. The Department believes it is the local jurisdiction's best interest to assure optimum design, otherwise the jurisdiction will face even more troublesome burdens in trying to achieve their load allocations.

Approved _____
Approved with Corrections _____
Corrections made _____

MINUTES ARE NOT FINAL UNTIL APPROVED BY THE EOC

ENVIRONMENTAL QUALITY COMMISSION

Minutes of the January 19, 1989, Work Session and
One Hundred Ninety-Third Meeting
January 20, 1989

Fourth Floor Conference Room
Executive Building
811 S. W. Sixth Avenue
Portland, Oregon 97204

WORK SESSION

January 19, 1989

Before beginning discussion on the scheduled work session items, Dave Rozell and Peter Spendelow, Solid Waste Division, provided the Commission with a brief overview of the report which would be presented as Agenda Item L (METRO Stipulated Order) during the Friday Meeting.

1. **Gasoline Volatility Limit.** Nick Nikkila, Air Quality Administrator, and Bill Jasper, Air Quality Division, presented the work session report on the issue of fuel volatility. Mr. Nikkila told the Commission about the ozone exceedances in the Portland area. He explained the status of the U. S. Environmental Protection Agency's (EPA) action as the administrations change. It had been anticipated that Lee Thomas, EPA Administrator, would make a late announcement about establishing federal limits. This would potentially preempt the states from independent fuel volatility regulations.

It was noted that no EPA announcement was made, and that the plan outlined in this report was a backup plan based on inaction at the federal level. Staff indicated there was a need to insure compliance with ozone for the summer of 1989. With marginal non-compliance with the standard, EPA is in a position to impose sanctions on Oregon. This could affect economic development. It is believed the volatility limit on motor gasoline will help insure compliance with ozone, and thereby show compliance, rather than marginal non-compliance.

There was a discussion on the pollution benefit to the other strategies associated with gasoline marketing. In response to Commission questioning, it was noted that Stage II vapor recovery (California-type filling station controls which recover vapors from the vehicle tank during fill up) would be discussed at a future EQC meeting.

By consensus, the Commission agreed to consider a request for hearing authorization at the March meeting on a rule to limit the volatility of gasoline sold in Oregon during the 1989 ozone season.

2. **State Revolving Loan Fund Program: Discussion of transition from grant program to a loan program.** Dick Nichols, Water Quality Administrator, provided an overview of the construction grant program and the Department's intent to phase in the loan program over the next few years. He noted that projects with identified water quality problems now on the priority list would continue to be eligible for grants. New projects with identified water quality problems rated after September 9, 1988, would also be eligible for grants but eligible project costs would be limited to \$1.5 million. The overall intent would be to provide grants to the remaining high priority needs while still assuring a significant level of funding to capitalize the Revolving Loan Fund. The Commission unanimously supported the transition strategy.
3. **Land Use Policy Discussion: Background on options for land use coordination.** Lydia Taylor, Management Services Division Administrator, and Roberta Young, Intergovernmental Coordinator, asked the Commission to review and discuss the DEQ's land use responsibilities and internal coordination program. The EQC was asked to determine the agency's focus or direction on land use involvement, and the degree of emphasis on land use in carrying out DEQ statutory environmental responsibilities.

Specifically, Ms. Young asked the Commission what level of land use involvement is appropriate for DEQ at the statewide level and to what degree should land use issues be considered in carrying out DEQ's regulatory responsibilities. DEQ presently operates in accord with an agreement approved by the Land Conservation and Development Commission (LCDC). This agreement is scheduled for review by LCDC, December 1990.

Commissioner Castle suggested the Department focus on specific geographic areas, evaluate land use controls as a

means of achieving environmental objectives, and then decide where the emphasis should be. Commissioner Sage asked about ocean resources and Goal 19 (outfalls). Chairman Hutchison summarized that the Department should have a presence in land use matters, should be selective by focusing on specific geographic areas, apply a preventive emphasis, and look for opportunities to use the land use process to achieve environmental objectives.

4. **Strategic Planning.** Commissioner Wessinger told the Commission that a coordinator had been hired for the Department's strategic planning. Approximately five meetings have been scheduled from January through March. The objective of the strategic planning process is to develop a strategic plan that lays out the overall, long-range directions of DEQ through the year 2000. Once the plan is formulated, it will serve as the basis for decisions and priorities for DEQ, such as budget decisions, structure of the organization, personnel decisions, generation and use of data and programmatic decisions.
5. **Interagency Coordination Policy and Implementation Strategy.** The purpose of this report was to review a draft of a proposed EQC policy statement and implementation strategy intended to ensure continuation and enhancement of Interagency Coordination efforts. The Commission did not suggest any changes to the draft as presented.

The Commission asked that a copy of this document be given to Gail Achterman, Assistant to the Governor for Natural Resources, and that it be brought to the attention of other natural resource agency heads. Harold Sawyer, Inter/Intra Program Coordinator, indicated this strategy may also be reflected in the strategic planning process.

6. **Mid-Multnomah County Pollution Control Bonds: Update on status of negotiations with Portland and Gresham.** Lydia Taylor, Management Services Administrator, told the Commission that this issue is in the process of being reviewed by City of Portland and Gresham attorneys.

The Commission discussed future meetings. The Commission will meet in Salem for their March 2 and 3 meeting, with a tour scheduled of the Brooks incinerator, Thursday, March 2. The Commission will also visit the new regional landfill under construction at Arlington for their April 13 work session meeting. The April 14 meeting will be held in the Portland area. The June 2 meeting may be held in Corvallis or Medford.

FORMAL MEETING
January 20, 1989

Commission Members Present:

Bill Hutchison, Chairman
Emery Castle, Vice Chairman
Wallace Brill
Genevieve Pisarski Sage
William Wessinger

Department of Environmental Quality Staff Present:

Fred Hansen, Director
Michael Huston, Assistant Attorney General
Program Staff Members

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

Field Trip: The Commission convened at 7:30 a.m. for a brief field trip to the Continuous Air Monitoring Station located in S. E. Portland. Dennis Duncan, Air Quality Monitoring Manager, briefed the Commission on the nature and extent of air quality monitoring in the Portland area. The Commission then returned to the Executive Building to begin the regular meeting at 9:30 a.m.

CONSENT ITEMS:

Agenda Item A: Minutes of the December 9, 1988, EQC Meeting.

ACTION: It was MOVED by Commissioner Castle, seconded by Commissioner Brill, and unanimously passed to approve the December 9, 1988, EQC meeting minutes.

Agenda Item B : Monthly Activity Report for November 1988.

Action: It was MOVED by Commissioner Castle, seconded by Commissioner Sage, and unanimously passed to approve the Activity Report for November 1988.

Agenda Item C: Civil Penalty Settlement Agreements.

There were no civil penalty settlement proposals presented for Commission action.

Agenda Item D: Tax Credits for Approval.

Action: It was **MOVED** by Commissioner Wessinger, seconded by Commissioner Brill, and unanimously passed to approve the tax credits for the listed reports.

Agenda Item E: Commission member reports.

1. **Strategic Planning:** Commissioner Wessinger reiterated his report given to the Commission at the Thursday work session.
2. **Governor's Watershed Enhancement Board:** Commissioner Sage provided the Commission with a brief overview of the board's history and responsibilities. She said the board was mandated to encourage long-range planning, to prioritize projects for funding and to provide education.

Commissioner Castle asked how public benefits are built into projects. Andy Schaedel, DEQ Laboratory, indicated that the board was looking for instream values and considered this in the priority setting process. The Soil and Water Conservation District, land owners and federal agencies such as the Bureau of Land Management (BLM) are involved with instream repair, fencing and planting.

Commissioner Sage asked for direction on how to assure that she was representing the views of the Commission. The Commission expressed agreement with Commissioner Sage's representation and suggested she bring any questions she may have to the full Commission.

3. **Pacific Northwest Hazardous Waste Advisory Council:** Chairman Hutchison's report was to inform the Commission of the Council's workplans. The Council is comprised of private industry and local/state governments. He indicated the council is presently considering incineration capacity. Chairman Hutchison indicated the Department will continue working with the Council and report back periodically to the Commission.

PUBLIC FORUM

Unified Sewerage Agency: Bonnie Hays, Washington County Commissioner, provided the Commission with a brief overview of the quarterly report by the Unified Sewerage Agency (USA) on the Tualatin River. She indicated that Washington County had met their first deadline in meeting the water quality requirements for the Tualatin River. The County is making progress on Infiltration/Inflow control, is reducing ammonia in the discharge from the Rock Creek plant, is expanding the Durham plant to eliminate wet weather overflows, and is phasing out the Gaston plant.

Commissioner Hays said that Washington County and DEQ had a cooperative staff relationship. She said it is the goal of Washington County to be responsible for ensuring that viable alternatives are developed. The County is working to communicate and develop understanding between the jurisdictions and project participants. Washington County and USA are working together to establish a surface water management authority for the urban area of Washington County and are preparing an urban area nonpoint source watershed management plan.

Commissioner Hays provided the Commission with several brochures and factsheets about Washington County and USA. This material is made part of the meeting record.

Jack Churchill, Northwest Environmental Defense Center (NEDC), commented that the bond issue proposed by USA was mostly to handle growth in the Tualatin Basin and only in part to improve water quality. He also requested that the Department hold a hearing on the revised list of Water Quality limited streams. He expressed the opinion that NEDC should have been consulted in the development of any revisions and that the list should be adopted as a rule. Director Hansen noted that the Commission had discussed the approach for revising the list of Water Quality limited streams at their last meeting. The Commission indicated the proposed list should be placed on public notice. Chairman Hutchison requested a status report in March.

HEARING AUTHORIZATIONS

Agenda Item F: Request for Authorization to Conduct Public Hearings on Proposed Rule, OAR 340-62-053, Economic Feasibility of Reuse or Recycling Waste Tires, and Revisions to Existing Rules, OAR 340-62, Permit Procedures and Standards for Waste Tire Storage Sites and Waste Tire Carriers.

The purpose of this agenda item is to request authorization to hold public hearings on a proposed addition and revisions to the Waste Tire Program permitting rules (OAR 340-62). The proposed new rule would establish a methodology to determine when it is economically feasible to recycle waste tires. If tire recycling is not economically feasible, an exception to the ban on landfilling whole tires would be allowed.

The intent of the economic feasibility methodology is to encourage recycling of waste tires rather than landfilling them. A "block pass" is also proposed to add flexibility to the tire carrier program, offering better backhaul rates for tire processors and regulatory relief for infrequent private carriers. Other proposed revisions include housekeeping changes to improve administration of the program.

Commissioner Sage requested clarification of the rule provision that would allow processing of a permit application before land use approval was received. Deanna Mueller-Crispin, Hazardous and Solid Waste, responded that this allowed the Department to evaluate the application and to formulate preliminary recommendations that may assist the local land use review process. The permit would not be issued until the required land use compatibility statement was received from the local planning jurisdiction.

Recommendation: The Director recommended the Commission adopt Alternative 1: Authorize public hearings to take public testimony on the draft rules as proposed in Attachment A.

Action: It was **MOVED** by Commissioner Wessinger, seconded by Commissioner Castle and unanimously passed that the Director's recommendation be approved.

Agenda Item G: Request for Authorization to Hold a Public Hearing on State Revolving Loan Fund (SRF) Rules.

The purpose of this agenda item is to establish a program to provide loans for water pollution control facilities. The proposed rules implement the statutory mandate and legislative intent of accepting and using federal funds to capitalize a perpetual revolving loan fund, assisting public agencies in controlling water pollution by providing them low interest loans and providing a process to administer the SRF.

Director Hansen told the Commission that the SRF rules would allow implementation of the loan program. He noted the program would be water quality based. The recommended alternative requires a

dedicated source of revenue for loan repayment including general obligation bonds, revenue bonds or user fees. This alternative also establishes interest rates at 0 percent for 5 years or less and 3 percent for 5 to 20 years. Under these proposed rules, the Commission would review the interest rates in two years and adjust them if necessary. This alternative is supported by the Task Force.

Recommendation: The Director recommended the Commission adopt Alternative 1: Authorize hearing on rules proposed in Attachment A and adopt the findings in Attachment N.

Action: It was **MOVED** by Commissioner Castle, seconded by Commissioner Sage and unanimously passed that the Director's recommendation be approved.

Agenda Item H: Request for Adoption of Proposed Environmental Cleanup Rules regarding Delisting of Facilities Listed on the Inventory and Establishing a Process to Modify Information regarding Facilities Listed on the Inventory, OAR 340-122-310 to 340.

This agenda item is a request for adoption of proposed environmental cleanup rules. In 1987 the Legislature enacted a provision of the Oregon superfund law to determine the extent and nature of hazardous substance releases throughout the state. A portion of that statute, ORS Chapter 466, required the Department to develop and to compile an inventory of confirmed releases of hazardous substances.

While the statute provided a detailed process for adding sites to the inventory, there was no mechanism for removing sites from the list or modifying information about the sites. The Department proposed that the Commission adopt the proposed rules. These rules provide a procedure and criteria for delisting facilities from the inventory and for modifying information contained in the inventory.

Director Hansen said that Senate Bill 122 required the Department to submit the inventory to the Legislature by January 15, 1989. While the agency was prepared to meet that date, the Director decided to temporarily hold submission of the inventory in abeyance while alternatives are discussed with the Legislature this week.

Director Hansen explained that a major problem the Department faces is that out of 325 facilities proposed for the inventory, 210 have been appealed. This represents a huge contested case workload that pulls resources away from the main task at hand of

determining which sites need to be cleaned up and working with the responsible parties on cleanup. He told the Commission the Department would like to move from the legal contested case issue to technical discussions about the real environmental problems and how the Department can deal with those problems.

Preliminary discussions with Oregon State Public Interest Research Group (OSPIRG) and Associated Oregon Industries (AOI), major proponents of SB 122 last session, indicate a willingness to seriously study legislative options to resolve the problem. Director Hansen told the Commission the agency will be discussing options with OSPIRG, AOI and appropriate legislators.

Director Hansen recommended the proposed delisting rules be temporarily tabled by the Commission. This was determined to be appropriate in light of the discussions on the inventory. If the inventory is changed or eliminated, delisting rules may not be needed.

Richard Bach, Stoel, Rives, Boley, Jones & Grey, and Jim Brown, Bogle & Gates, urged the EQC to withhold action.

Recommendation: The Director recommended the Commission defer this item and allow emergency rule adoption to occur.

Action: It was MOVED by Commissioner Wessinger, seconded by Commissioner Brill and unanimously passed that Agenda Item H be tabled.

Agenda Item I: Permanent Rules for Certification of Recycling for Programs and Amendments to Existing Recycling Rules.

The purpose of this agenda item is to preserve resources and reduce the amount of waste disposed in Oregon landfills. The proposed rule implements a requirement of 1987 legislation which prohibits a regional solid waste disposal site from accepting wastes from a government unit after certain deadlines unless the Department certifies that the government unit has provided a sufficient opportunity to recycle. The Commission had previously adopted temporary rules to implement this provision. This agenda item proposes to make those rules permanent with some changes.

The proposed rules provide that government units in Oregon with approved or conditionally approved wasteshed recycling reports would be automatically certified. For out-of-state wastes entering a regional disposal site in Oregon, the disposal site would be required to gather and report sufficient information to DEQ to support certification. The proposed rule sets an exemption

level of 1,000 tons per year for waste from out of state before a local jurisdiction would need to be certified.

Rick Daniels, Oregon Waste Systems (OWS), said the exemption level should be raised to 4,000 tons, since 4,000 tons is approximately the amount of garbage generated by 4,000 people, and OWS did not believe that towns with fewer than 4,000 people had any recycling requirements in Oregon. OWS believed that this portion of the rule discriminated against out-of-state waste. They also supported a fee which is not included in the Department's recommendation.

The Department responded that there is no exemption for in-state waste and that for communities of less than 4,000 people, the recycling requirements would be the same both in and out of state. Because of the out-of-state exemption level, communities shipping less than 1,000 tons per year to an Oregon regional landfill from out of state would not have any recycling requirements. Thus, for most communities, the recycling requirements are not discriminatory; however, for very small communities, recycling opportunities (not necessarily including curbside collection) are required in Oregon but not out of state. Discrimination is against in-state as opposed to out-of-state waste.

The proposed rule does not call for a certification fee to be charged by the Department. Instead, the Department will await the results of legislative decisions before deciding on proposing a fee. Oregon Waste Systems testified that a fee should be charged at this time for certification, and they were willing to pay an appropriate fee.

Recommendation: The Director recommended the Commission adopt Alternative 1: Adopt the new rules for certification of recycling programs and amendments to existing recycling rules as proposed in Attachment A.

Action: It was **MOVED** by Commissioner Castle, seconded by Commissioner Wessinger, and unanimously passed that the Director's recommendation be approved. The Commission noted the exemption is reasonable, and the fee issue may be considered again after the legislative session.

Agenda Item J: Environmental Quality Commission's Report to the Legislature on the Oregon Recycling Opportunity Act and the Department's Report to the Legislature on Local Government Solid Waste Reduction Programs.

The purpose of this agenda item is to secure Commission approval of reports to be presented to the Legislature regarding recycling and waste reduction opportunities in Oregon.

Recommendation: The Director recommended the Commission adopt Alternative 1: Adopt the reports as presented in Attachments A and B.

Action: It was **MOVED** by Commissioner Sage, seconded by Commissioner Brill, and unanimously passed that the Director's recommendation be approved.

Agenda Item K: Report to the Legislature on the METRO Waste Reduction Program.

The purpose of this agenda item is to provide the Legislature with information as to the implementation by METRO of their Waste Reduction Program. The report to the legislature contained information on:

- Background summary of the METRO Waste Reduction Program.
- Current recycling and disposal of waste in the METRO Region.
- Summary of METRO's progress in implementing its waste reduction program.
- Intended action by the Commission to ensure compliance with the METRO Waste Reduction Program.

Recommendation: The Director recommended the Commission adopt Alternative 1: Commission review and comment on the report presented in Attachment B.

Action: It was **MOVED** by Commissioner Wessinger, seconded by Commissioner Castle, and unanimously passed that the Director's recommendation be approved.

Agenda Item L: METRO Solid Waste Reduction Program: Approval of Stipulated Order.

The purpose of this agenda item is to ensure that METRO accomplishes key elements of their Solid Waste Reduction Program. The proposed order would implement 16 key activities of the 1986 METRO waste reduction program.

The Department recommended the Commission adopt the first alternative and approve the proposed stipulated order as presented by staff. The proposed stipulated order covers the most important waste reduction activities of the 1986 plan except for certification and compliance rate incentives. Specific tasks with specific end dates are set, and, in some cases, the tasks

outlined in the order go beyond the tasks outlined in the original waste reduction program. For example, the order sets requirements for yard debris recycling and salvage of reusable and recyclable construction material at all METRO-area disposal sites, including the demolition landfills. The 1986 waste reduction plan did not specifically include waste reduction activities at the demolition fills.

The proposed order also requires Department concurrence with METRO findings if METRO determines it is not feasible or appropriate to carry out certain recycling activities called for in the order and in the original waste reduction program. The original waste reduction program did not specify such direct Department oversight. Finally, the proposed order includes stipulated penalties for violation of the order.

Recommendation: The Director recommended the Commission adopt Alternative 1: Approve the proposed stipulated order as presented by the staff in Attachment A.

Bob Martin and Rich Carson, representing METRO, noted the difficult discussions that had taken place to reach the draft order. Messrs. Martin and Carson said that the proposed order is appropriate and urged favorable consideration. DEQ has the opportunity to review and concur at each step in the process. Finally, they noted that their final recommendation to sign the order will be contingent on sufficient resources available to METRO to implement the order.

The Commission expressed concern about the protracted timelines. Bob Martin noted that the regional approach requires cooperation of many local units of government and takes more time in the beginning.

Dave Phillips, Clackamas County Solid Waste Administrator, expressed concern that the proposed order has an impact on local governments facing the public, collecting money, etc. He considered the order far reaching in the interagency cooperation area.

Jeanne Roy, Recycling Advocates, noted that the order contained many excellent aspects and was well written. However, the certification/rate incentive issue was not adequately covered. Ms. Roy recommended the order be approved and, in addition, the Commission order implementation of the certification/rate incentive provisions of the old plan.

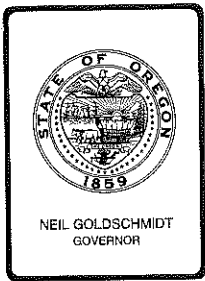
Director Hansen noted that the Department considered the performance and certification/rate incentive issue and concluded

that METRO should be allowed to pursue alternative methods to achieve the same result. The Department therefore opted for language in the order that would preserve the right for DEQ to order implementation of the original provision if progress was not satisfactory. Mr. Martin stressed the need for flexibility so that METRO can work cooperatively with local governments to ensure success and that was not possible with a requirement to use a specified method to achieve the result.

Commissioner Castle stated the distinction between standards of performance and goals was the real issue. He noted there was no precision in the language of expected performance on page 3, paragraphs A and B. He indicated he could support the order if the **Whereas** section was more concise and the option to order implementation of the original plan was clearly preserved.

Action: By consensus, the Commission made changes for clarification purposes in the language describing the METRO planning process and the results expected from the planning process. The Commission also directed the Department to include language setting timelines and requirements in the **Order** and **Whereas** sections of the order. The Commission approved the order in concept, without making any changes in the timelines or activities required in the order and complimented METRO on the work done to help ensure implementation of the waste reduction program.

There was no further business, and the meeting was adjourned at 1:15 p.m.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: March 3, 1989
Agenda Item: B
Division: Management Services
Section: Administration

SUBJECT:

December 1988 Activity Report

PURPOSE:

1. Obtain Commission approval of plans and specifications for construction for air contaminant sources.
2. Provide general information to the Commission on the activities of the Department.

ACTION REQUESTED:

- Work Session Discussion
- General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)
- Authorize Rulemaking Hearing
- Proposed Rules (Draft) Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Draft Public Notice Attachment
- Adopt Rules
- Proposed Rules (Final Recommendation) Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Public Notice Attachment
- Issue Contested Case Decision/Order
- Proposed Order Attachment
- Other: Accept Activity Report and approve air contaminant source plans and specifications. Attachment A

Meeting Date: March 3, 1989
Agenda Item: B
Page 2

DESCRIPTION OF REQUESTED ACTION:

(See Purpose Statement above.)

AUTHORITY/NEED FOR ACTION:

| | |
|---|------------------|
| <input type="checkbox"/> Required by Statute: _____ | Attachment _____ |
| Enactment Date: _____ | |
| <input checked="" type="checkbox"/> Statutory Authority: <u>ORS 468.325</u> | Attachment _____ |
| (Air Quality Plan Approval) | |
| <input type="checkbox"/> Amendment of Existing Rule: _____ | Attachment _____ |
| <input type="checkbox"/> Implement Delegated Federal Program: _____ | Attachment _____ |
| _____ | Attachment _____ |
| <input type="checkbox"/> Other: | Attachment _____ |
| <input type="checkbox"/> Time Constraints: (explain) | |

DEVELOPMENTAL BACKGROUND:

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

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

None

PROGRAM CONSIDERATIONS:

None

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

None

Meeting Date: March 3, 1989
Agenda Item: B
Page 3

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the attached information report be accepted and that plans and specifications for construction of air contaminant sources be approved.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

At the December meeting, the Commission authorized a public hearing on rules which would delegate Authority to approve Air Quality Plans to the Director. The public hearing is scheduled for March 6, 1989. Once rules are adopted and the delegation is complete, the Air Quality Plan will not have to come before the Commission for approval.

Presentation of the activity report to the Commission is not required, but is consistent with the Department's understanding of past Commission policy direction.

ISSUES FOR COMMISSION TO RESOLVE:

None Identified.

Note: The Commission could choose to approve or disapprove of plans and specifications for construction of air contaminant sources. The Department has reviewed the plans and advised the sources that the plans will be considered approved upon favorable Commission action. In the event of disapproval, the Department would notify the sources accordingly to cease construction or installation of the pollution control facilities.

The Commission can also request different information or additional information to be provided in the monthly activity report.

INTENDED FOLLOWUP ACTIONS:

None

Meeting Date: March 3, 1989
Agenda Item: B
Page 4

Approved:

Section:

Roberta Young

Division:

Psychia Taylor

Director:

Jul Hawn

Report Prepared By: Roberta Young

Phone: 229-6408

Date Prepared: February 10, 1989

RY:y
B-MSD
2/10/89

DEPARTMENT OF ENVIRONMENTAL QUALITY

Monthly Activity Report

December 1988

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DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division
 Water Quality Division and
Hazardous and Solid Waste Division
 (Reporting Unit)

December 1988
 (Month and Year)

SUMMARY OF PLAN ACTIONS

| | Plans Received | | Plans Approved | | Plans Disapproved | | Plans Pending |
|---|----------------|-----------|----------------|-----------|-------------------|-----------|---------------|
| | <u>Month</u> | <u>FY</u> | <u>Month</u> | <u>FY</u> | <u>Month</u> | <u>FY</u> | |
| <u>Air</u> | | | | | | | |
| Direct Sources | 4 | 37 | 3 | 49 | 0 | 0 | 12 |
| Small Gasoline Storage Tanks Vapor Controls | - | - | - | - | - | - | - |
| Total | 4 | 37 | 3 | 49 | 0 | 0 | 12 |
| <u>Water</u> | | | | | | | |
| Municipal | 7 | 67 | 6 | 81 | 0 | 1 | 19 |
| Industrial | 9 | 47 | 8 | 45 | 0 | 0 | 6 |
| Total | 16 | 114 | 14 | 126 | 0 | 1 | 25 |
| <u>Solid Waste</u> | | | | | | | |
| Gen. Refuse | 6 | 17 | 2 | 15 | 1 | 4 | 28 |
| Demolition | - | 1 | 1 | 1 | - | - | 1 |
| Industrial Sludge | 1 | 5 | 2 | 5 | 1 | 2 | 12 |
| | - | - | - | - | - | - | 2 |
| Total | 7 | 23 | 5 | 21 | 2 | 6 | 43 |
| <hr/> | | | | | | | |
| <u>GRAND TOTAL</u> | 27 | 174 | 22 | 196 | 2 | 7 | 80 |

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MONTHLY ACTIVITY REPORT

DIRECT SOURCES
PLAN ACTIONS COMPLETED

| Permit Number | Source Name | County | Date Scheduled | Action Description | Date Achieved |
|------------------|--------------------------------|------------|-------------------|-----------------------|------------------|
| 07 | 0005 OCHOCO LUMBER COMPANY | CROOK | 11/23/88 | COMPLETED-APRVD | 12/08/88 62 |
| 14 | 0002 DEE FOREST PRODUCTS, INC. | HOOD RIVER | 12/06/88 | COMPLETED-APRVD | 12/13/88 62 |
| 18 | 0023 GREGORY FOREST PRODUCTS | KLAMATH | 12/07/88 | COMPLETED-APRVD | 12/22/88 62 |

TOTAL NUMBER QUICK LOOK REPORT LINES 3

A-2

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division
(Reporting Unit)

December 1988
(Month and Year)

SUMMARY OF AIR PERMIT ACTIONS

| | Permit Actions Received | | Permit Actions Completed | | Permit Actions Pending | Sources Under Permits | Sources Reqr'g Permits |
|-------------------------|-------------------------------|-----------|--------------------------------|-----------|------------------------------|-----------------------------|------------------------------|
| | <u>Month</u> | <u>FY</u> | <u>Month</u> | <u>FY</u> | | | |
| <u>Direct Sources</u> | | | | | | | |
| New | 2 | 13 | 1 | 15 | 10 | | |
| Existing | 1 | 5 | 1 | 2 | 10 | | |
| Renewals | 13 | 68 | 5 | 40 | 88 | | |
| Modifications | 3 | 20 | 1 | 12 | 17 | | |
| Trfs./Name Chng. | <u>1</u> | <u>17</u> | <u>0</u> | <u>16</u> | <u>2</u> | | |
| Total | 20 | 123 | 8 | 85 | 127 | 1398 | 1422 |
| <u>Indirect Sources</u> | | | | | | | |
| New | 2 | 7 | 2 | 6 | 3 | | |
| Existing | 0 | 0 | 0 | 0 | 0 | | |
| Renewals | 0 | 0 | 0 | 0 | 0 | | |
| Modifications | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | | |
| Total | <u>2</u> | <u>7</u> | <u>2</u> | <u>6</u> | <u>3</u> | <u>292</u> | <u>295</u> |
| <u>GRAND TOTALS</u> | 22 | 130 | 10 | 91 | 130 | 1690 | 1717 |

Number of
Pending Permits

Comments

| | |
|-----------|--|
| 21 | To be reviewed by Northwest Region |
| 10 | To be reviewed by Willamette Valley Region |
| 11 | To be reviewed by Southwest Region |
| 5 | To be reviewed by Central Region |
| 13 | To be reviewed by Eastern Region |
| 21 | To be reviewed by Program Operations Section |
| 34 | Awaiting Public Notice |
| <u>12</u> | Awaiting end of 30-day Public Notice Period |
| 127 | |

MAR. 5
AA5323 (1/89)

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MONTHLY ACTIVITY REPORT

DIRECT SOURCES
PERMITS ISSUED

| Permit Number | Source Name | County Name | Appl. Rcvd. | Status | Date Achvd. | Type Appl. |
|------------------|--------------------------------|-------------|----------------|---------------|----------------|---------------|
| 04 | 0058 BAYVIEW TRANSIT MIX, INC. | CLATSOP | 10/04/88 | PERMIT ISSUED | 12/29/88 | EXT |
| 22 | 6310 STAYTON ROCK PRODUCTS INC | LINN | 07/06/88 | PERMIT ISSUED | 12/15/88 | RNW |
| 26 | 3229 LAKESIDE INDUSTRIES | MULTNOMAH | 11/30/88 | PERMIT ISSUED | 12/29/88 | MOD |
| 34 | 2543 ROGERS CONSTRUCTION, INC. | WASHINGTON | 11/03/88 | PERMIT ISSUED | 12/15/88 | RNW |
| 36 | 8031 BOISE CASCADE CORP | YAMHILL | 02/29/88 | PERMIT ISSUED | 12/15/88 | RNW |
| 37 | 0047 MT HOOD ASPHALT PROD INC | PORT.SOURCE | 11/29/88 | PERMIT ISSUED | 12/19/88 | RNW |
| 37 | 0095 KIEWIT PACIFIC COMPANY | PORT.SOURCE | 11/30/88 | PERMIT ISSUED | 12/15/88 | RNW |
| 37 | 0396 JEFFERSON STATE REDI MIX | PORT.SOURCE | 10/13/88 | PERMIT ISSUED | 12/29/88 | NEW |

TOTAL NUMBER QUICK LOOK REPORT LINES

8

A-4

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division
(Reporting Unit)

December 1988
(Month and Year)

PERMIT ACTIONS COMPLETED

| * County | * Name of Source/Project | * Date of | * Action | * |
|----------|--------------------------|-----------|----------|---|
| * | * /Site and Type of Same | * Action | * | * |
| * | * | * | * | * |

Indirect Sources

| | | | |
|-----------|---|----------|---------------------|
| Multnomah | Fujitsu Microelectronics Center, 338 Spaces, File No. 26-8808 | 12/13/88 | Final Permit Issued |
| Miltnomah | Powell Valley Junction 403 Spaces, File No. 26-8809 | 12/28/88 | Final Permit Issued |

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division
(Reporting Unit)

December 1988
(Month and Year)

PERMIT TRANSFERS & NAME CHANGES

| <u>Permit Number</u> | <u>Company Name</u> | <u>Type of Change</u> | <u>Status of Permit</u> |
|----------------------|--|--------------------------|-------------------------|
| 15-0002 | LTM, Incorporated | Name Change ¹ | Ready to be Issued |
| 15-0003 | LTM, Incorporated | Name Change ¹ | Being drafted |
| 03-2632 | Mechanics Tools, Inc. dba Stanley-Proto Industrial Tools | Name Change | Ready to be Issued |
| 33-0018 | Mid-Columbia Producers, Inc. | Name Change | Ready to be Issued |

¹In conjunction with permit renewal.

²In conjunction with permit modification.

MAR.5TC
AD3481 (1/89)

DEPARTMENT OF ENVIRONMENTAL QUALITY
MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

December 1988
(Month and Year)

PLAN ACTIONS COMPLETED

| * County | * Name of Source/Project | * Date of | * Action |
|----------|---------------------------|-----------|----------|
| * | * /Site, and Type of Same | * Action | * |
| * | * | * | * |

INDUSTRIAL WASTE SOURCES - 8

| | | | |
|-----------|---|----------|----------|
| Linn | T. Peter Early Manure Control Facility | 12-7-88 | Approved |
| Linn | Freres Lumber Co. Inc. Dip Tank Wood Preserving Containment Facility | 11-17-88 | Approved |
| Tillamook | A. Gene Assay Manure Control Facility | 12-13-88 | Approved |
| Multnomah | McCloskey Corporation of Oregon Automatic Shut-off Valves & Catch Tank | 12-8-88 | Approved |
| Umatilla | Pacific Power & Light Co. Oil/Water Separator | 12-12-88 | Approved |
| Clatsop | Harold Weaver Manure Control Facility | 12-22-88 | Approved |
| Multnomah | Portland General Electric Oil Spill Containment Facility with PCB Storage | 12-19-88 | Approved |
| Douglas | Gregory Forest Products, Inc. Sapstain Control Facility | 12-16-88 | Approved |

WC4327

DEPARTMENT OF ENVIRONMENTAL QUALITY
MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

December 1988
(Month and Year)

PLAN ACTIONS COMPLETED

| * County | * Name of Source/Project | * Date of | * Action |
|----------|--------------------------|-----------|----------|
| * | * /Site and Type of Same | * Action | * |
| * | * | * | * |

MUNICIPAL WASTE SOURCES - 6

Page 1 of 1

| | | | |
|----------|---|----------|--------------------------------|
| Lane | Lane County and Mapleton Commercial Area Owners Association, Inc. Collection, Treatment and Disposal - 24,000 gallons per day | 12-12-88 | Provisional Approval |
| Columbia | Scappoose Scappoose Senior Center | | Provisional Approval |
| Linn | Lyons-Mehama Draft Facility Plan | 12-16-88 | Comments to Engineer |
| Douglas | North Canyonville Sanitary District Pressure Sewer Construction | 12-12-88 | Comments to District |
| Coos | North Bend STP Expansion | 1-9-89 | Comments to Engineer |
| Douglas | Green Sanitary District 3rd Addition Rolling Hills Estate Lakewood Court & Geoginna St. | 1-3-89 | Verbal Approval to District |

WC4327

DEPARTMENT OF ENVIRONMENTAL QUALITY
MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

December 1988
(Month and Year)

PLAN ACTIONS PENDING

| * County | * Name of Source/Project | * Date | * Status |
|----------|--------------------------|------------|----------|
| * | * /Site and Type of Same | * Received | * |
| * | * | * | * |

INDUSTRIAL WASTE SOURCES - 6

| | | | |
|-----------|--|----------|--|
| Tillamook | Hanna Car Wash Systems Closed Loop Acid Recovery System | 10-28-88 | Review Completion Projected 1-31-89 |
| Tillamook | Tillamook County Creamery Association Wastewater Treatment Facility Modification | 11-17-88 | Review Completion Projected 1-31-89 |
| Marion | Siltec Corporation Initial Liquid Effluent Treatment Facility | 11-22-88 | Review Completion Projected 1-31-89 |
| Lincoln | Georgia-Pacific 6 FRAMCO Submersible Aerators and Nutrient Adding Equipment | 12-16-88 | Review Completion Projected 1-31-89 |
| Clatsop | James River II, Inc. Polymer Flocculators Rotary Screen Prethickeners, and 30 T/D Screw Presses | 11-22-88 | Review Completion Projected 1-31-89 |
| Coos | Weyerhaeuser Paper Co. Aerators, Earthen Dikes and Floating Dikes | 12-23-88 | Review Completion Project 1-31-89 |

WG4327

DEPARTMENT OF ENVIRONMENTAL QUALITY
MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

December 1988
(Month and Year)

PLAN ACTIONS PENDING

| * County | * Name of Source/Project | * Date | * Status | * Reviewer |
|----------|--------------------------|------------|----------|------------|
| * | * /Site and Type of Same | * Received | * | * |
| * | * | * | * | * |

MUNICIPAL WASTE SOURCES - 19

Page 1 of 2

| | | | | |
|------------|--|----------|--|-----|
| Umatilla | Larry Greenwalt Shady Rest Mobile Home Court Bottomless Sand Filter | 4-21-88 | Review Completion Projected 1-31-89 | JLV |
| Lincoln | Coyote Rock RV Park Site Sewers, New Drainfield | 8-30-88 | Review Completion Projected 1-31-89 | JLV |
| Curry | Brookings Contract No. 1 (outfall) | 8-22-88 | Review Completion Projected 1-31-89 | KMV |
| Clatsop | Glenwood Mobile Park Modification to dual media filter from anoxic tower | 10-4-88 | Review Completion Projected 1-31-89 | JLV |
| Clackamas | Government Camp Mt. Hood Motel | 11-21-88 | Review Completion Projected 1-31-89 | JLV |
| Curry | Brookings Meadow Subdivision Harbor Sanitary District | 12-13-88 | Review Completion Projected 1-31-89 | DSM |
| Lane | Veneta Jean's Road Improvements | 12-22-88 | Review Completion Projected 1-31-89 | JLV |
| Clackamas | West Linn West Linn Library Project | 12-27-88 | Review Completion Projected 1-31-89 | JLV |
| Washington | Durham AWWTP (USA) Phase I Expansion (70%) | 12-27-88 | Review Completion Projected 1-31-89 | DSM |
| Curry | Brookings Contract #2 (70%) | 12-29-88 | Review Completion Projected 1-31-89 | KMV |

WC4327

DEPARTMENT OF ENVIRONMENTAL QUALITY
MONTHLY ACTIVITY REPORT

Water Quality Division
(Reporting Unit)

December 1988
(Month and Year)

PLAN ACTIONS PENDING

| * County | * Name of Source/Project | * Date | * Status | * Reviewer |
|----------|--------------------------|------------|----------|------------|
| * | * /Site and Type of Same | * Received | * | * |
| * | * | * | * | * |

MUNICIPAL WASTE SOURCES

Page 2 of 2

- - - - - PROJECTS BELOW ARE "ON-HOLD" - - - - -

| | | | | |
|-----------|---|---------|-------------------------------------|-----------------|
| Baker | Idaho Power Company Copperfield Campground Reconstruction of On-Site System | 8-25-88 | Awaiting Resubmittal | JLV |
| Columbia | Scappoose Sewage Treatment Plant Expansion | 3-11-87 | On Hold, Financing Incomplete | DSM |
| Deschutes | Romaine Village Recirculating Gravel Filter (Revised) | 4-27-87 | On Hold For Surety Bond | Not Assigned |
| Marion | Breitenbush Hot Springs On-Site System | 5-27-86 | On Hold, Uncertain Financing | JLV |
| Benton | North Albany County Service District Spring Hill-Crocker Creek Int. | 1-21-87 | On Hold, Project Inactive | Not Assigned |
| Curry | Whaleshead Beach Campground Gravel Recirculation Filter (Revised) | 5-20-87 | Holding for Field Inspection | JLV |
| Multnomah | Troutdale Frontage Road Sewage Pump Station Replacement | 4-25-88 | Bids Rejected, Being Redesigned | DSM |
| Wallowa | Wallowa Lake Co. Service District STEP System Equipment/Materials | 6-6-88 | Holding for Equipment Submittals | DSM |
| Deschutes | Bend Bend Millwork Sewer and Pump Station | 8-18-88 | Awaiting Design Revisions | DSM |

WC4327

Summary of Actions Taken
On Water Permit Applications in DEC 88

| Source Category & Permit Subtype | Number of Applications Filed | | | | | | Number of Permits Issued | | | | | | Applications Pending Permits Issuance (1) | | | Current Number of Active Permits | | |
|-------------------------------------|------------------------------|------|-----|-------------|------|-----|--------------------------|------|-----|-------------|------|-----|---|------|-----|----------------------------------|------|------|
| | Month | | | Fiscal Year | | | Month | | | Fiscal Year | | | NPDES | WPCF | Gen | NPDES | WPCF | Gen |
| | NPDES | WPCF | Gen | NPDES | WPCF | Gen | NPDES | WPCF | Gen | NPDES | WPCF | Gen | | | | | | |
| Domestic | | | | | | | | | | | | | | | | | | |
| NEW | | 2 | | | 11 | 2 | | 3 | | 2 | 9 | | 3 | 16 | 2 | | | |
| RW | | | | 2 | 1 | | 1 | 1 | | 2 | 1 | | 3 | 1 | | | | |
| RWO | 6 | 1 | | 27 | 10 | | | 1 | | 7 | 9 | | 82 | 35 | | | | |
| MW | 2 | | | 3 | | | | | | | | | 4 | | | | | |
| MWO | | 1 | | 2 | 6 | | | 1 | | 2 | 5 | | 2 | 3 | | | | |
| Total | 8 | 4 | | 34 | 28 | 2 | 1 | 6 | | 13 | 24 | | 94 | 55 | 2 | 225 | 202 | 29 |
| Industrial | | | | | | | | | | | | | | | | | | |
| NEW | | 1 | 5 | 4 | 5 | 23 | 1 | 2 | 4 | 1 | 9 | 26 | 5 | 11 | 12 | | | |
| RW | | | | 2 | | | | | | 2 | | | 2 | | | | | |
| RWO | 1 | | | 9 | 12 | | 1 | | | 10 | 9 | | 20 | 23 | | | | |
| MW | | | | | | | | | | 1 | | | 3 | | | | | |
| MWO | 1 | 1 | 1 | 5 | 6 | 3 | | 1 | | 4 | 6 | | 1 | 1 | | | | |
| Total | 2 | 2 | 6 | 20 | 23 | 26 | 2 | 3 | 4 | 18 | 24 | 26 | 31 | 35 | 12 | 157 | 139 | 435 |
| Agricultural | | | | | | | | | | | | | | | | | | |
| NEW | | | | | 2 | | | | 9 | | | 42 | | 2 | | | | |
| RW | | | | | | | | | | | | | | | | | | |
| RWO | | | | | 3 | | | | | | | | 1 | 4 | | | | |
| MW | | | | | | | | | | | | | | | | | | |
| MWO | | | | | 1 | | | | | | 2 | | | | | | | |
| Total | | | | | 6 | | | | 9 | | 2 | 42 | 1 | 6 | | 2 | 8 | 644 |
| Grand Total | 10 | 6 | 6 | 54 | 57 | 28 | 3 | 9 | 13 | 31 | 50 | 68 | 126 | 96 | 14 | 384 | 349 | 1108 |

1) Does not include applications withdrawn by the applicant, applications where it was determined a permit was not needed, and applications where the permit was denied by DEQ.

It does include applications pending from previous months and those filed after 31-DEC-88.

NEW - New application
 RW - Renewal with effluent limit changes
 RWO - Renewal without effluent limit changes
 MW - Modification with increase in effluent limits
 MWO - Modification without increase in effluent limits

| PERMIT CAT NUMBER | SUB- TYPE | OR NUMBER | FACILITY FACILITY NAME | CITY | COUNTY/REGION | DATE ISSUED | DATE EXPIRES |
|----------------------|--------------|--------------|---------------------------|------|---------------|----------------|-----------------|
|----------------------|--------------|--------------|---------------------------|------|---------------|----------------|-----------------|

General: Cooling Water

| | | | | | | | | | |
|-----|-----|-------|-----|------------|--|----------|----------------|-----------|-----------|
| IND | 100 | GEN01 | NEW | OR003265-4 | 104221/A ELECTRO SCIENTIFIC INDUSTRIES, INC. | PORTLAND | WASHINGTON/NWR | 14-DEC-88 | 31-DEC-90 |
|-----|-----|-------|-----|------------|--|----------|----------------|-----------|-----------|

General: Confined Animal Feeding

| | | | | | | | | | |
|-----|-----|-------|-----|--|------------------------------|-------------|-------------|-----------|-----------|
| AGR | 800 | GEN08 | NEW | | 104040/B HERMENS, IRVIN F. | YAMHILL | YAMHILL/WVR | 28-DEC-88 | 31-JUL-92 |
| AGR | 800 | GEN08 | NEW | | 104357/A TIPPETT RANCH, INC. | ENTERPRISE | WALLOWA/ER | 28-DEC-88 | 31-JUL-92 |
| AGR | 800 | GEN08 | NEW | | 104359/A COOK, WAYNE | ENTERPRISE | WALLOWA/ER | 28-DEC-88 | 31-JUL-92 |
| AGR | 800 | GEN08 | NEW | | 104361/A NEBEKER, RAY G. | ADRIAN | MALHEUR/ER | 28-DEC-88 | 31-JUL-92 |
| AGR | 800 | GEN08 | NEW | | 104363/A WERTH FARMS | GRAND RONDE | POLK/WVR | 28-DEC-88 | 31-JUL-92 |
| AGR | 800 | GEN08 | NEW | | 104362/A GIRVIN, HOWARD W. | VALE | MALHEUR/ER | 28-DEC-88 | 31-JUL-92 |
| AGR | 800 | GEN08 | NEW | | 104360/A PALMER & SONS | ONTARIO | MALHEUR/ER | 28-DEC-88 | 31-JUL-92 |
| AGR | 800 | GEN08 | NEW | | 104358/A SUNRISE DAIRY | HAINES | BAKER/ER | 28-DEC-88 | 31-JUL-92 |
| AGR | 800 | GEN08 | NEW | | 104356/A SCHAEFER, VICTOR | SALEM | MARION/WVR | 28-DEC-88 | 31-JUL-92 |

General: Gravel Mining

| | | | | | | | | | |
|-----|------|-------|-----|--|--------------------------------------|--------|---------------|-----------|-----------|
| IND | 1000 | GEN10 | NEW | | 19500/A CONSTRUCTION AGGREGATES INC. | BARTON | CLACKAMAS/NWR | 13-DEC-88 | 31-DEC-91 |
|-----|------|-------|-----|--|--------------------------------------|--------|---------------|-----------|-----------|

A-13

| PERMIT CAT NUMBER | SUB- TYPE OR NUMBER | FACILITY | FACILITY NAME | CITY | COUNTY/REGION | DATE ISSUED | DATE EXPIRES |
|--|------------------------|------------|--|---------------|---------------|----------------|-----------------|
| <u>General: Oily Stormwater Runoff</u> | | | | | | | |
| IND 1300 | GEN13 NEW | OR003266-2 | 104250/A MALETIS, INC. | PORTLAND | MULTNOMAH/NWR | 09-DEC-88 | 31-JUL-93 |
| IND 1300 | GEN13 NEW | OR003027-9 | 68473/A PENNZOIL PRODUCTS COMPANY | PORTLAND | MULTNOMAH/NWR | 21-DEC-88 | 31-JUL-93 |
| <u>NPDES</u> | | | | | | | |
| IND 100546 | NPDES RWO | OR003119-4 | 9596/A BOISE CASCADE CORPORATION | WILLAMINA | YAMHILL/WVR | 19-DEC-88 | 31-OCT-93 |
| DOM 100549 | NPDES RW | OR002339-6 | 500/A ADAIR VILLAGE, CITY OF | CORVALLIS | BENTON/WVR | 21-DEC-88 | 30-NOV-93 |
| IND 100551 | NPDES NEW | OR003256-5 | 103916/A RISK SCIENCE INTERNATIONAL INC. | CENTRAL POINT | JACKSON/SWR | 23-DEC-88 | 30-NOV-93 |
| <u>WPCF</u> | | | | | | | |
| IND 100351 | WPCF MWO | | 100148/A RAKHRA MUSHROOM FARM CORP. | VALE | MALHEUR/ER | 12-DEC-88 | 30-APR-92 |
| DOM 100543 | WPCF RW | | 3215/A APPLGATE CHRISTIAN FELLOWSHIP | JACKSONVILLE | JACKSON/SWR | 12-DEC-88 | 30-NOV-93 |
| DOM 100544 | WPCF NEW | | 103162/A ATTEBURY, RAYMOND G. | WALDPORT | LINCOLN/WVR | 12-DEC-88 | 31-OCT-93 |
| DOM 100545 | WPCF RWO | | 9027/A BLY SANITARY DISTRICT | BLY | KLAMATH/CR | 12-DEC-88 | 31-OCT-93 |
| IND 100547 | WPCF NEW | OR003047-3 | 64250/A OREGON STATE BOARD OF HIGHER EDUCATION | KLAMATH FALLS | KLAMATH/CR | 19-DEC-88 | 30-NOV-93 |
| IND 100548 | WPCF NEW | | 104294/A KLAMATH COUNTY OREGON | KLAMATH FALLS | KLAMATH/CR | 20-DEC-88 | 31-DEC-93 |
| DOM 100069 | WPCF MWO | | 27115/B E V D, INC. AND KLEMEN, STEPHEN DBA | CRESWELL | LANE/WVR | 21-DEC-88 | 31-JAN-90 |
| DOM 100550 | WPCF NEW | | 103917/A NAZARENE, OREGON PACIFIC DISTRICT, CHURCH OF THE | | DOUGLAS/SWR | 23-DEC-88 | 30-NOV-93 |

A-14

| PERMIT CAT NUMBER | TYPE | SUB- TYPE OR NUMBER | FACILITY FACILITY NAME | CITY | COUNTY/REGION | DATE ISSUED | DATE EXPIRES |
|----------------------|------|------------------------|-----------------------------|------|---------------|----------------|-----------------|
| DOM 100552 | WPCF | NEW | 103546/A HEMSTREET, MARK S. | TROY | WALLOWA/ER | 28-DEC-88 | 31-DEC-93 |

A-15

PERMIT TRANSFERS

Part of
Water Quality Division Monthly Activity Report

(Period December 1, 1988 through December 31, 1988)

| <u>Permit No.</u> | <u>Previous Facility Name</u> | <u>Facility</u> | <u>New Facility Name</u> | <u>City</u> | <u>County</u> | <u>Date Transferred</u> |
|-------------------|--|-----------------|---|-------------|-----------------|-------------------------|
| 100351 | Oregon Trail Mushroom Co. | 100148 | Rakhra Mushroom Farm Corp. Oregon Trail Mushrooms-Mix Site | Vale | Malheur/ ERO | 12/12/88 (Name Chg.) |
| 100069 | The Oregon Bank, dba Emerald Valley Forrest Inn | 27115 | EVD, Inc. and Stephen Klemen, dba Emerald Valley Development | Creswell | Lane/WVR | 12/21/88 (Ownership) |
| 1300-J | Pennzoil Company | 68473 | Pennzoil Products Company | Portland | Mult./NWR | 12/21/88 (Name Chg.) |

A - 16

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Hazardous and Solid Waste Division
(Reporting Unit)

December 1988
(Month and Year)

PLAN ACTIONS COMPLETED

| * County | * Name of Source/Project * /Site and Type of Same | * Date of * Action | * Action | * |
|-----------|--|-----------------------|------------------------|---|
| Josephine | Merlin Landfill Groundwater study | 12/15/88 | Approved | |
| Lane | Short Mountain Landfill | 12/22/88 | Plans disapproved | |
| Yamhill | Riverbend Landfill | 12/22/88 | Plans approved | |
| Douglas | Roseburg Forest Products (Riddle) | 12/23/88 | Plans approved | |
| Douglas | Roseburg Forest Products | 12/23/88 | Plans approved | |
| Klamath | Weyerhaeuser-Klamath Falls | 12/23/88 | Plans withdrawn | |
| Marion | Brown's Island Landfill | 12/30/88 | Closure plan approved. | |

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Hazardous and Solid Waste Division
(Reporting Unit)

December 1988
(Month and Year)

PLAN ACTIONS PENDING - 43

| * County * | * Name of Facility * | * Date Plans Rec'd. * | * Date of Last Action * | * Type of Action and Status * | * Location * |
|------------|----------------------|-----------------------|-------------------------|-------------------------------|--------------|
|------------|----------------------|-----------------------|-------------------------|-------------------------------|--------------|

Municipal Waste Sources - 28

| | | | | | |
|------------|---------------------------|----------|----------|---------------------------------------|----|
| Baker | Haines | 12/13/85 | 12/13/85 | (R) Plan received | HQ |
| Deschutes | Knott Pit Landfill | 8/20/86 | 8/20/86 | (R) Plan received | HQ |
| Deschutes | Fryrear Landfill | 8/20/86 | 8/20/86 | (R) Plan received | HQ |
| Deschutes | Negus Landfill | 8/20/86 | 8/20/86 | (R) Plan received | HQ |
| Marion | Ogden Martin Brooks ERF | 3/24/87 | 3/24/87 | (N) As-built plans rec'd. | HQ |
| Douglas | Reedsport Lndfl. | 5/7/87 | 5/7/87 | (R) Plan received | HQ |
| Benton | Coffin Butte | 6/1/87 | 6/1/87 | (R) Plan received | HQ |
| Umatilla | City of Milton-Freewater | 11/19/87 | 11/19/87 | (N) Plan received (groundwater study) | HQ |
| Marion | Ogden-Martin (metal rec.) | 11/20/87 | 11/20/87 | (N) Plan received | HQ |
| Marion | Browns Island Landfill | 11/20/87 | 11/20/87 | (C) Plan received (groundwater study) | HQ |
| Harney | Burns-Hines | 12/16/87 | 12/16/87 | (R) Plan received | HQ |
| Marion | Woodburn TS | 1/5/88 | 1/5/88 | (N) Revised plan rec'd. | HQ |
| Jackson | Dry Creek Landfill | 1/15/88 | 1/15/88 | (R) Groundwater report received | HQ |
| Washington | Hillsboro TS | 1/15/88 | 1/15/88 | (N) Plans received | HQ |

| * County * | * Name of Facility * | * Date Plans Rec'd. * | * Date of Last Action * | * Type of Action and Status * | * Location * |
|------------|--------------------------------------|-----------------------|-------------------------|---------------------------------|--------------|
| Multnomah | Riedel Composting | 5/5/88 | 5/5/88 | (N) Plans received | HQ |
| Umatilla | Pendleton Landfill | 6/6/88 | 6/6/88 | (R) Plans received | HQ |
| Coos | Les' Sanitary Service TS | 6/30/88 | 6/30/88 | (N) Plans received. | HQ |
| Malheur | Brogan-Jameson Lndfl | 7/1/88 | 7/1/88 | (C) Plans received. | HQ |
| Malheur | Brogan TS | 7/1/88 | 7/1/88 | (N) Plans received. | HQ |
| Marion | Marion Recycling Center, Inc. | 7/20/88 | 7/20/88 | (N) Plans received | HQ |
| Douglas | Lemolo Transfer | 9/1/88 | 9/1/88 | (M) Plans received | HQ |
| Lane | Franklin Landfill | 9/29/88 | 9/29/88 | (R) Groundwater report received | HQ |
| Umatilla | Athena Landfill | 11/15/88 | 11/15/88 | (M) Plans received | |
| Jackson | Ashland Landfill | 12/1/88 | 12/1/88 | (N) Plans received | HQ |
| Lake | Lake County Lndfl. | 12/5/88 | 12/5/88 | (C) Plans received | HQ |
| Deschutes | Alfalfa Landfill | 12/19/88 | 12/19/88 | (C) Plans received | HQ |
| Morrow | Heppner Landfill | 12/20/88 | 12/20/88 | (N) Plans received | HQ |
| Mutlnomah | St. Johns Landfill Groundwater study | 12/22/88 | 12/22/88 | (C) GW study received | HQ |

Demolition Waste Sources - 1

| | | | | | |
|------------|--------------------|---------|---------|------------------------------|--|
| Washington | Hillsboro Landfill | 1/29/88 | 1/29/88 | (N) Expansion plans received | |
|------------|--------------------|---------|---------|------------------------------|--|

Industrial Waste Sources - 12

| | | | | | |
|------|--------------|---------|---------|---|----|
| Coos | Rogge Lumber | 7/28/86 | 6/18/87 | (C) Additional info. submitted to revise previous application | HQ |
|------|--------------|---------|---------|---|----|

| * County * | * Name of Facility * | * Date Plans Rec'd. * | * Date of Last Action * | * Type of Action and Status * | * Location * |
|------------|----------------------|-----------------------|-------------------------|-------------------------------|--------------|
|------------|----------------------|-----------------------|-------------------------|-------------------------------|--------------|

| | | | | | |
|----------|----------------------------------|----------|----------|--|----|
| Douglas | Louisiana-Pacific Round Prarie | 9/30/87 | 9/30/87 | (R) Operational plan. | HQ |
| Clatsop | Nygaard Logging | 11/17/87 | 11/17/87 | (N) Plan received | HQ |
| Linn | James River, Lebanon | 1/22/88 | 4/21/88 | (C) Additional information requested | HQ |
| Columbia | Boise Cascade St. Helens | 4/6/88 | 4/6/88 | (N) As built plans received. | HQ |
| Douglas | Sun Studs | 6/20/88 | 6/20/88 | (R) Plans received | HQ |
| Douglas | Sun Studs | 7/1/88 | 7/1/88 | (R) Operational/groundwater plans received | HQ |
| Douglas | IP, Gardiner | 8/16/88 | 8/16/88 | (N) Plans received | HQ |
| Yamhill | Boise Cascade (Willamina) | 9/1/88 | 9/1/88 | (N) Plans received | |
| Grant | Blue Mountain Forest Products | 9/7/88 | 9/7/88 | (N) Plans received | HQ |
| Douglas | Lemolo | 11/10/88 | 11/10/88 | (R) Plans received | |
| Marion | OWTD - Silverton Forest Products | 12/19/88 | 12/19/88 | (C) GW study received | HQ |

Sewage Sludge Sources - 2

| | | | | | |
|------|--------------------------|----------|----------|-------------------------|----|
| Coos | Beaver Hill Lagoons | 11/21/86 | 12/26/86 | (N) Add'l. info. rec'd. | HQ |
| Coos | Hempstead Sludge Lagoons | 9/14/87 | 9/14/87 | (C) Plan received | HQ |

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Hazardous and Solid Waste Division
(Reporting Unit)

December 1988
(Month and Year)

SUMMARY OF SOLID WASTE PERMIT ACTIONS

| | Permit Actions Received | | Permit Actions Completed | | Permit Actions Pending | Sites Under Permits | Sites Reqr'g Permits |
|------------------------|-------------------------------|----|--------------------------------|----|------------------------------|---------------------------|----------------------------|
| | Month | FY | Month | FY | | | |
| <u>General Refuse</u> | | | | | | | |
| New | - | 3 | 0 | 1 | 7 | | |
| Closures | 1 | 3 | - | 4 | 4 | | |
| Renewals | 1 | 2 | - | 3 | 12 | | |
| Modifications | - | 16 | 0 | 17 | 0 | | |
| Total | 2 | 24 | 0 | 25 | 23 | 180 | 180 |
| <u>Demolition</u> | | | | | | | |
| New | - | 1 | 1 | 1 | 0 | | |
| Closures | - | - | - | - | - | | |
| Renewals | - | - | - | - | 1 | | |
| Modifications | - | 2 | - | 2 | 1 | | |
| Total | 0 | 3 | 1 | 3 | 2 | 11 | 11 |
| <u>Industrial</u> | | | | | | | |
| New | - | - | 1 | 1 | 4 | | |
| Closures | - | - | - | - | 1 | | |
| Renewals | - | 1 | - | 6 | 6 | | |
| Modifications | - | 8 | - | 8 | - | | |
| Total | 0 | 9 | 1 | 15 | 11 | 107 | 107 |
| <u>Sludge Disposal</u> | | | | | | | |
| New | - | 1 | - | 1 | 1 | | |
| Closures | - | - | - | - | 1 | | |
| Renewals | - | - | - | - | - | | |
| Modifications | - | 1 | - | - | - | | |
| Total | 0 | 2 | 0 | 1 | 2 | 18 | 18 |
| Total Solid Waste | 2 | 38 | 2 | 44 | 38 | 315 | 315 |

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Hazardous and Solid Waste Division
(Reporting Unit)

December 1988
(Month and Year)

PERMIT ACTIONS COMPLETED

| * County | * Name of Source/Project | * Date of | * Action | * |
|----------|--------------------------------|-----------|------------------------|---|
| * | * /Site and Type of Same | * Action | * | * |
| * | * | * | * | * |
| Marion | Brown's Island Landfill | 12/30 | Permit issued. | |
| Klamath | Weyerhaeuser, Klamath Falls | 12/23 | Application withdrawn. | |

DEPARTMENT OF ENVIRONMENTAL QUALITY
MONTHLY ACTIVITY REPORT

Hazardous and Solid Waste Division
(Reporting Unit)

December 1988
(Month and Year)

PERMIT ACTIONS PENDING - 38

| * County * | * Name of Facility * | * Date Appl. Rec'd. * | * Date of Last Action * | * Type of Action and Status * | * Location * |
|------------|----------------------|-----------------------|-------------------------|-------------------------------|--------------|
|------------|----------------------|-----------------------|-------------------------|-------------------------------|--------------|

Municipal Waste Sources - 23

| | | | | | |
|------------|---|----------|----------|-------------------------------------|-------|
| Clackamas | Rossmans | 3/14/84 | 2/11/87 | (C) Applicant review (second draft) | HQ/RO |
| Baker | Haines | 1/30/85 | 6/20/85 | (R) Applicant review | HQ |
| Curry | Wridge Creek | 2/19/86 | 9/2/86 | (R) Draft received | HQ |
| Umatilla | Rahn's (Athena) | 5/16/86 | 5/16/86 | (R) Application filed | RO |
| Marion | Woodburn Lndfl. | 9/22/86 | 6/22/88 | (R) Applicant review | HQ |
| Coos | Bandon Landfill | 1/20/87 | 1/7/88 | (R) Draft received | HQ |
| Deschutes | Negus Landfill | 2/4/87 | 11/16/87 | (R) Applicant review | HQ |
| Douglas | Reedsport Lndfl. | 5/7/87 | 1/11/88 | (R) Draft received | HQ |
| Lane | Florence Landfill | 9/21/87 | 4/12/88 | (R) Draft received | HQ |
| Morrow | Tidewater Barge Lines (Finley Butte Landfill) | 10/15/87 | 10/15/87 | (N) Application filed | HQ |
| Douglas | Roseburg Landfill | 10/21/87 | 12/21/87 | (R) Draft received | |
| Curry | Port Orford Lndfl. | 12/14/87 | 8/18/88 | (R) Applicant review | HQ |
| Washington | Hillsboro TS | 1/15/88 | 4/12/88 | (N) Draft received | HQ |
| Multnomah | Riedel Composting | 5/5/88 | 5/5/88 | (N) Application received | RO/HQ |
| Coos | Les' Sanitary Service TS | 6/30/88 | 8/19/88 | (N) Draft received | HQ |
| Malheur | Brogan-Jameson | 7/1/88 | 7/1/88 | (C) Application received | RO |
| Malheur | Brogan TS | 7/1/88 | 7/1/88 | (N) Application received | RO |

SB4968
MAR.7S (5/79)

(A) = Amendment; (C) = Closure permit;
(N) = New source; (R) = Renewal

Page 1

| * County * | * Name of Facility * | * Date Appl. Rec'd. * | * Date of Last Action * | * Type of Action and Status * | * Location * |
|------------|----------------------|-----------------------|-------------------------|-------------------------------|--------------|
|------------|----------------------|-----------------------|-------------------------|-------------------------------|--------------|

| | | | | | |
|-----------|-------------------------------|----------|----------|--------------------------|----|
| Marion | Marion Recycling Center, Inc. | 7/20/88 | 7/20/88 | (N) Application received | HQ |
| Tillamook | Tillamook Landfill | 8/16/88 | 8/16/88 | (N) Application received | RO |
| Marion | Ogden Martin | 10/11/88 | 10/11/88 | (R) Application received | HQ |
| Gilliam | Arlington Landfill Closure | 11/14/88 | 11/14/88 | (C) Closure application | HQ |
| Deschutes | Alfalfa Landfill Closure | 12/19/88 | 12/19/88 | (C) Application received | RO |
| Union | North Powder | 12/20/88 | 12/20/88 | (R) Application received | HQ |

Demolition Waste Sources - 2

| | | | | | |
|------------|---------------------------|---------|---------|--------------------------|----|
| Coos | Bracelin/Yeager (Joe Ney) | 3/28/86 | 8/11/88 | (R) Public hearing held | HQ |
| Washington | Hillsboro Lndfl. | 1/29/88 | 1/29/88 | (A) Application received | HQ |

Industrial Waste Sources - 11

| | | | | | |
|---------|-----------------------------|----------|----------|--------------------------------------|----|
| Lane | Bohemia, Dorena | 1/19/81 | 9/1/87 | (R) Applicant review of second draft | HQ |
| Wallowa | Boise Cascade Joseph Mill | 10/3/83 | 5/26/87 | (R) Applicant comments received | HQ |
| Curry | South Coast Lbr. | 7/18/86 | 7/18/86 | (R) Application filed | RO |
| Baker | Ash Grove Cement West, Inc. | 4/1/87 | 4/1/87 | (N) Application received | RO |
| Klamath | Modoc Lumber Landfill | 5/4/87 | 5/4/87 | (R) Application filed | RO |
| Clatsop | Nygaard Logging | 11/17/87 | 3/3/88 | (N) Draft received | HQ |
| Wallowa | Sequoia Forest Ind. | 11/25/87 | 11/25/87 | (N) Application filed | RO |
| Douglas | Glide Lumber Prod. | 3/8/88 | 9/28/88 | (R) Applicant comments received | HQ |

SB4968
MAR.7S (5/79)

(A) = Amendment; (C) = Closure permit;
(N) = New source; (R) = Renewal

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| * County * | * Name of Facility * | * Date Appl. Rec'd. * | * Date of Last Action * | * Type of Action and Status * | * Location * |
|------------|----------------------|-----------------------|-------------------------|-------------------------------|--------------|
|------------|----------------------|-----------------------|-------------------------|-------------------------------|--------------|

| | | | | | |
|--------|---------------------------|--------|---------|----------------------|----|
| Marion | Silverton Forest Products | 5/5/88 | 8/31/88 | (C) Applicant review | HQ |
|--------|---------------------------|--------|---------|----------------------|----|

| | | | | | |
|---------|--------------------|--------|---------|----------------------|----|
| Douglas | Hayward Disp. Site | 6/7/88 | 8/18/88 | (R) Applicant review | HQ |
|---------|--------------------|--------|---------|----------------------|----|

| | | | | | |
|---------|---------------------------|--------|--------|--------------------------|----|
| Yamhill | Boise-Cascade (Willamina) | 9/1/88 | 9/1/88 | (N) Application received | HQ |
|---------|---------------------------|--------|--------|--------------------------|----|

Sewage Sludge Sources - 2

| | | | | | |
|------|---------------------|---------|---------|--|----|
| Coos | Beaver Hill Lagoons | 5/30/86 | 3/10/87 | (N) Add'l. info. received (addition of waste oil facility) | HQ |
|------|---------------------|---------|---------|--|----|

| | | | | | |
|------|--------------------------|---------|---------|--------------------------|-------|
| Coos | Hempstead Sludge Lagoons | 9/14/87 | 9/14/87 | (C) Application received | HQ/RO |
|------|--------------------------|---------|---------|--------------------------|-------|

CHEM-SECURITY SYSTEMS, INC.
Arlington, Oregon

1988

HAZARDOUS WASTE ORIGATION SOURCES

MONTHLY QUANTITY OF WASTE DISPOSED (TONS)¹

| <u>Waste Source</u> | <u>JAN</u> | <u>FEB</u> | <u>MAR</u> | <u>APR</u> | <u>MAY</u> | <u>JUN</u> | <u>JUL</u> | <u>AUG</u> | <u>SEP</u> | <u>OCT</u> | <u>NOV</u> | <u>DEC</u> | <u>YTD</u> |
|---------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------|
| Oregon | 1,198 | 1,766 | 2,845 | 1,927 | 1,644 | 3,602 | 4,782 | 5,351 | 4,690 | 2,687 | 1,470 | | 31,962 |
| Washington | 7,698 | 8,186 | 10,696 | 9,986 | 9,918 | 14,952 | 15,595 | 16,971 | 17,961 | 16,522 | 14,188 | | 142,673 |
| California | 19 | - | 32 | - | 46 | - | 12 | 9 | - | - | - | | 118 |
| Alaska | - | - | - | 267 | 9 | - | - | 922 | 540 | 249 | 1,725 | | 3,712 |
| Idaho | 41 | 26 | 146 | 35 | 19 | 2 | 8 | 129 | 171 | 169 | 31 | | 777 |
| CSSI ^{2,3} | 890 | 262 | 319 | 1,000 | 96,024 | 90,790 | 163,965 | 5,802 | 222 | 301 | 1,214 | | 300,789 |
| Other ⁴ | <u>73</u> | <u>32</u> | <u>111</u> | <u>136</u> | <u>43</u> | <u>103</u> | <u>60</u> | <u>106</u> | <u>69</u> | <u>50</u> | <u>288</u> | | <u>1,071</u> |
| TOTALS | 9,919 | 10,272 | 14,149 | 13,351 | 47,703 | 109,449 | 184,422 | 29,290 | 23,653 | 19,978 | 18,916 | | 481,102 |

Footnotes

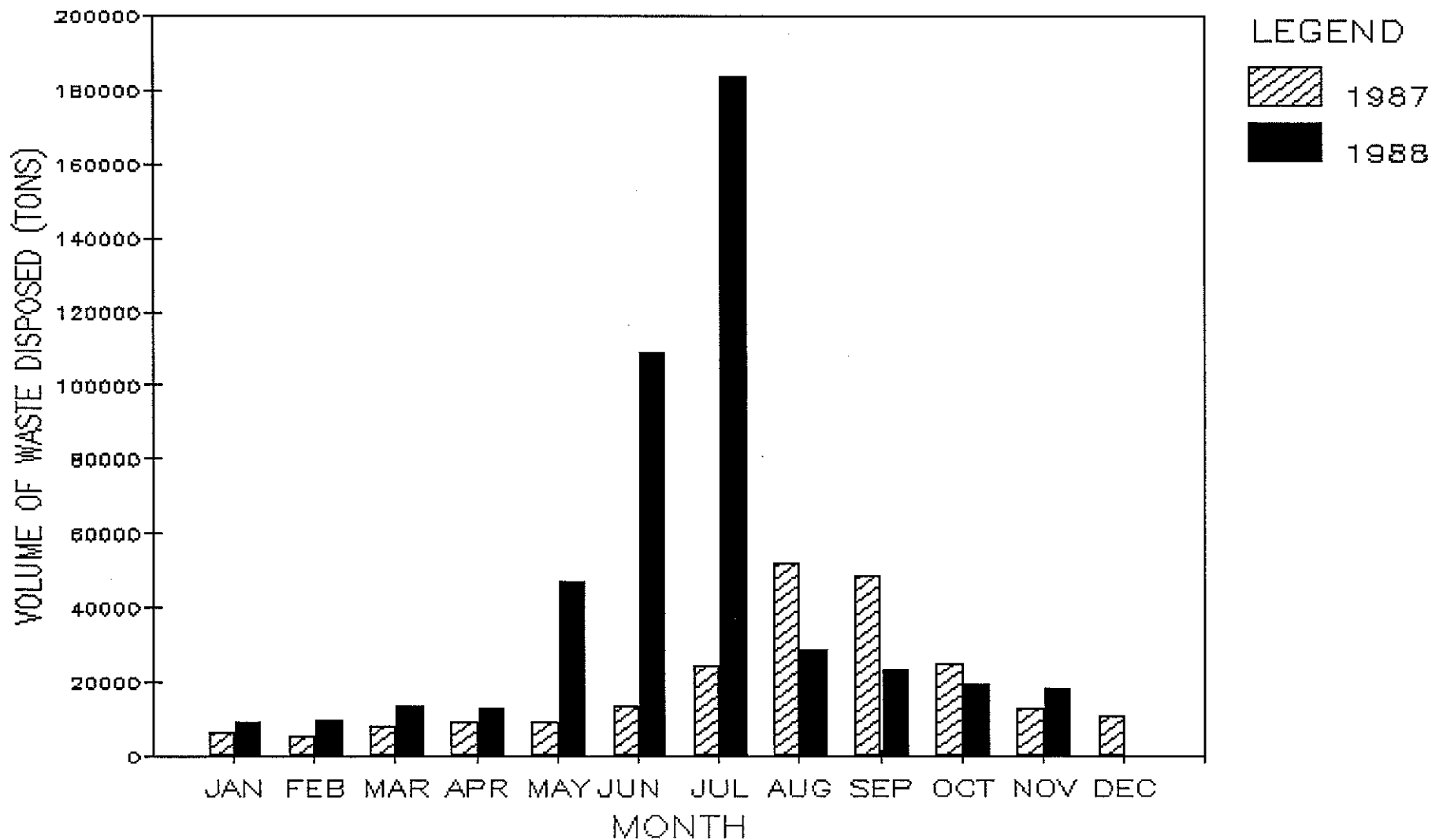
- 1 Quantity of waste (both RCRA and non-RCRA) received at the facility.
- 2 Waste generated on-site by CSSI.
- 3 Closure of surface impoundments occurred at the facility during the period May - August, 1988. The waste residue from the surface impoundment closures was landfilled, which accounts for the relatively high amount of waste generated by CSSI during this period.
- 4 Other waste origination sources include Utah, Montana, Hawaii, Wyoming, and British Columbia.

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HAZARDOUS WASTE DISPOSAL CHEM-SECURITY SYSTEMS, INC.

Arlington, Oregon

1987 - 1988 Waste Disposal Volume Comparison



A-27

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

| | |
|---|------------------------------------|
| Noise Control Program (Reporting Unit) | December, 1988 (Month and Year) |
|---|------------------------------------|

NOISE COMPLAINT SUMMARY

for the

1988 CALENDAR YEAR

| Category | Number of Complaints | % of 1988 Complaints |
|-------------------------------|-------------------------|-------------------------|
| Industry & Commerce | 491 | 71% |
| Motor Vehicles | 121 | 17% |
| Airports | 27 | 4% |
| Racing Events & Facilities | 19 | 3% |
| Others | <u>33</u> | <u>5%</u> |
| TOTAL | 692 | 100% |

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

| | |
|---|--|
| <p>Noise Control Program (Reporting Unit)</p> | <p>December, 1988 (Month and Year)</p> |
|---|--|

SUMMARY OF NOISE CONTROL ACTIONS

| <u>Source Category</u> | New Actions Initiated | | Final Actions Completed | | Actions Pending | |
|----------------------------|--------------------------|-----------|----------------------------|-----------|--------------------|----------------|
| | <u>Mo</u> | <u>FY</u> | <u>Mo</u> | <u>FY</u> | <u>Mo</u> | <u>Last Mo</u> |
| Industrial/ Commercial | 3 | 57 | 7 | 98 | 147 | 151 |
| Airports | | | 1 | 9 | 1 | 1 |

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

| | |
|------------------------------|-----------------------|
| <u>Noise Control Program</u> | <u>December, 1988</u> |
| (Reporting Unit) | (Month and Year) |

FINAL NOISE CONTROL ACTIONS

| County | * * Name of Source and Location | * * Date | * * Action |
|---------------------|---|-------------|----------------------------------|
| Clackamas | Kellogg Creek Sewage Treatment Plant, Milwaukie | 12/88 | Exempt* |
| Multnomah | Union Pacific Railroad, N.E. Lombard at 27 to 60th Av. Portland | 12/88 | Referred to the City of Portland |
| Washington | Belknap Industries, Tigard | 12/88 | Referred to the City of Tigard |
| Washington | Morse Brothers Quarry, Tigard | 12/88 | In compliance |
| Linn | American Cemwood Corp., Albany | 12/88 | In compliance |
| Linn | Pacific Fabricators, Albany | 12/88 | No violation |
| Marion | Woodburn Community Center, Woodburn | 12/88 | Referred to the City of Woodburn |
| Marion | Turner Gravel & Excavating Co., Salem | 12/88 | No violation |
| Airports | | | |
| Columbia | Foggy Mountain Airport, Rainier | 12/88 | Boundary approved |

* Noisy equipment which was performing "exempt" maintenance of capital equipment has been removed.

CIVIL PENALTY ASSESSMENTS

DEPARTMENT OF ENVIRONMENTAL QUALITY
1988

CIVIL PENALTIES ASSESSED DURING MONTH OF DECEMBER, 1988:

| <u>Name and Location of Violation</u> | <u>Case No. & Type of Violation</u> | <u>Date Issued</u> | <u>Amount</u> | <u>Status</u> |
|--|---|--------------------|---------------|---|
| Lavonne Stark Estacada, Oregon | AQOB-NWR-88-107 Open burned domestic waste on a day when burning was prohibited. | 12/7/88 | \$50 | A default order and judgment was issued on 1/19/89. |
| Magar E. Magar dba/Riverwood Mobile Home Park Columbia County | WQ-NWR-88-98 Failure to monitor or report data required by NPDES waste discharge permit; 36 days of violation. | 12/15/88 | \$1,800 | Contested on 12/27/88. |
| Evergreen Agricultural Enterprises, Inc. dba/Evergreen Farms Yamhill County | AQ-FB-88-111 Failed to extinguish all flames and major smoke sources when open field burning prohibition conditions were imposed. | 12/16/88 | \$500 | Paid on 1/12/89. |
| Terry K. Gorake dba/Gorake Brothers Benton County | AQ-FB-88-112 Failure to extinguish all flames and major smoke sources when open field burning prohibition conditions were imposed. | 12/16/88 | \$400 | Paid on 1/9/89. |
| Norman D. McKee dba/McKee River Ranch Polk County | AQ-FB-88-113 Failure to extinguish all flames and major smoke sources when open field burning prohibition conditions were imposed. | 12/16/88 | \$300 | Paid on 12/27/88. |
| Joe Schumacher Marion County | AQ-FB-88-114 Failed to extinguish all flames and major smoke sources when open field burning prohibition conditions were imposed. | 12/16/88 | \$400 | Settlement action. |

| <u>Name and Location of Violation</u> | <u>Case No. & Type of Violation</u> | <u>Date Issued</u> | <u>Amount</u> | <u>Status</u> |
|--|---|--------------------|---------------|---|
| Aart and Sheri Falk Linn County | AQ-FB-88-115 Open burned four grass seed fields without authorization. | 12/16/88 | \$2,000 | Contested on 1/5/89. |
| David Smith Lane County | AQ-FB-88-116 Open burned a grass seed field without authorization. | 12/16/88 | \$500 | A default order and judgment was issued on 1/17/89. |
| Ken Kuderer Marion County | AQ-FB-88-117 Caused an open field fire while propane flaming. | 12/16/88 | \$500 | Contested on 1/5/89. |
| Carl Ditchen dba/Golden Valley Farms Marion County | AQ-FB-88-118 Open burned thistles and agricultural debris on a day that agricul- tural burning was pro- hibited. | 12/16/88 | \$1,000 | Paid 1/3/89. |
| Lakeside Horse Rentals, Inc. Portland, Oregon | AQOB-NWR-88-110 Open burned commercial waste. | 12/29/88 | \$125 | Paid 12/29/88. |
| Air Rite Control, Inc. Portland, Oregon | AQAB-NWR-88-85 Removed asbestos duct tape without wetting; open storage of asbestos. | 12/23/88 | \$2,600 | Contested on 1/11/89. |

January, 1989
DEQ/EQC Contested Case Log

| <u>ACTIONS</u> | <u>LAST MONTH</u> | <u>PRESENT</u> |
|---|-------------------|----------------|
| Preliminary Issues | 1 | 0 |
| Discovery | 0 | 2 |
| Settlement Action | 3 | 12 |
| Hearing to be scheduled | 0 | 0 |
| Department reviewing penalty | 0 | 0 |
| Hearing scheduled | 9 | 4 |
| HO's Decision Due | 2 | 1 |
| Briefing | 0 | 0 |
| Inactive | <u>2</u> | <u>2</u> |
| SUBTOTAL of cases before hearings officer | 17 | 21 |
| HO's Decision Out/Option for EQC Appeal | 0 | 1 |
| Appealed to EQC | 0 | 0 |
| EQC Appeal Complete/Option for Court Review | 0 | 0 |
| Court Review Option Taken | 0 | 0 |
| Case Closed | <u>3</u> | <u>2</u> |
| TOTAL Cases | 20 | 24 |

15-AQ-NWR-87-178 15th Hearing Section case in 1987 involving Air Quality Division violation in Northwest Region jurisdiction in 1987; 178th enforcement action in the Department in 1987.

§ Civil Penalty Amount

ACDP Air Contaminant Discharge Permit

AGI Attorney General 1

AQ Air Quality Division

AQOB Air Quality, Open Burning

CR Central Region

DEC Date Date of either a proposed decision of hearings officer or a decision by Commission

ER Eastern Region

FB Field Burning

HW Hazardous Waste

HSW Hazardous and Solid Waste Division

Hrng Rfrl Date when Enforcement Section requests Hearing Section schedule a hearing

Hrngs Hearings Section

NP Noise Pollution

NPDES National Pollutant Discharge Elimination System wastewater discharge permit

NWR Northwest Region

OSS On-Site Sewage Section

P Litigation over permit or its conditions

Prtys All parties involved

Rem Order Remedial Action Order

Resp Code Source of next expected activity in case

SS Subsurface Sewage (now OSS)

SW Solid Waste Division

SWR Southwest Region

T Litigation over tax credit matter

Transcr Transcript being made of case

Underlining New status or new case since last month's contested case log

WQ Water Quality Division

WVR Willamette Valley Region

CONTES.B

January, 1989
DEQ/EQC Contested Case Log

| Pet/Resp Name | Hrng Rqst | Hrng Rfrl | Hrng Date | Resp Code | Case Type & No. | Case Status |
|---|-----------|-----------|-----------|--------------|---|--|
| WAH CHANG | 04/78 | 04/78 | | Prtys | 16-P-WQ-WVR-78-2849-J NPDES Permit Modification | New permit under negotiation. May resolve contested issues. |
| WAH CHANG | 04/78 | 04/78 | | Prtys | 03-P-WQ-WVR-78-2012-J NPDES Permit Modification | New permit under negotiation. May resolve contested issues. |
| DANT & RUSSELL, INC. | 05/31/85 | 05/31/85 | 03/21/86 | <u>Prtys</u> | 15-HW-NWR-85-60 Hazardous waste disposal Civil Penalty of \$2,500 | <u>Settlement agreement delayed pending resolution of federal court proceedings.</u> |
| BRAZIER FOREST PRODUCTS | 11/22/85 | 12/12/85 | 02/10/86 | DEQ | 23-HSW-85-60 Declaratory Ruling | Tentative settlement reached. Order to be prepared for EQC consideration. |
| [GIFTY-OF----- [KLAMATH-FALLS [SALT-GAVES-II] | | | 05/03/88 | Ptys | 1-P-WQ-88} (FERG-#10199)} | <u>Appeal dismissed. Case closed.</u> |
| CSSI | 3/31/88 | 4/19/88 | | Prtys | Permit 089-452-353 | A stipulated order resolving certain disputed terms will be submitted to EQC for approval; others will be adjudicated. |
| GUARANTEE CONSTRUCTION | 7/5/88 | 7/8/88 | 10/4/88 | <u>DEQ</u> | AQAB-NWR-88-31 \$2,000 Civil Penalty | <u>Hearings Officer dismissed penalty 1/25/89.</u> |
| [GEORGE-FOX----- [COLLEGE----- | | | 9/7/88 | DEQ | AQAB-WVR-88-38} -\$3,750-Civil-Penalty} | Hearings Officer dismissed penalty. <u>No appeal. Case closed.</u> |

A-34

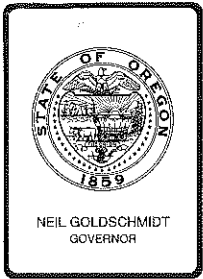
January, 1989
DEQ/EQC Contested Case Log

| Pet/Resp Name | Hrng Rqst | Hrng Rfrrl | Hrng Date | Resp Code | Case Type & No. | Case Status |
|--|--------------|---------------|---------------|--------------|---|--|
| [ELLIOTT-JOCHIMSEN | ----- | ----- | 9/7/88 | Hrgs | AQAB-WVR-88-50} [\$7,000-Civil-Penalty} | <u>Hearings Officer dismissed penalty. No appeal. Case closed.</u> |
| CLAUDE ST. JEAN | 9/15/88 | | 1/10/89 | Prtys | OS-SWR-88-68 \$500 Civil Penalty | <u>Settlement action.</u> |
| GLENNEDEN BRICK & TILE WORKS | 9/15/88 | | 1/18/89 | Prtys | AQ-WS-88-70 \$1,500 Civil Penalty | <u>Settlement action.</u> |
| JOHN BOWERS | 9/19/88 | | 1/11/89 | Prtys | AQOB-CR-88-58 \$1,500 Civil Penalty | <u>Settlement action.</u> |
| CITY OF SALEM | 9/26/88 | | <u>3/6/89</u> | Prtys | Department Order | Hearing rescheduled. |
| DAVIS dba TRI-COUNTY STOVE AND CHIMNEY SERVICE | 9/27/88 | | 12/1/88 | Hrgs | AQ-WS-88-69 \$1,500 Civil Penalty | <u>Decision due.</u> |
| IRVING HERMENS | 9/27/88 | | 1/24/89 | Prtys | WQ-WVR-88-61A \$2,500 Civil Penalty and-62B, Department Order | <u>Settlement action.</u> |
| ARIE JONGANEEL dba A.J. Dairy | 10/3/88 | | 1/20/89 | Prtys | WQ-WVR-88-73A \$2,500 Civil Penalty and -73B, Department Order | <u>Settlement action.</u> |
| JOHN VOLBEDA | 11/15/88 | 11/17/88 | 1/27/89 | Prtys | WQ-WVR-88-81 | <u>Settlement action.</u> |
| HARBOR OIL | | | 2/03/89 | Prtys | Permit 1300-J Permit Revocation | <u>Settlement action.</u> |
| ENVIRONMENTAL PACIFIC CORP. | | | 1/30/89 | Prtys | HW-WVR-88-88 Compliance Order | <u>DEQ considering dismissal.</u> |

January, 1989
DEQ/EQC Contested Case Log

| <u>Pet/Resp Name</u> | <u>Hrng Rqst</u> | <u>Hrng Rfrl</u> | <u>Hrng Date</u> | <u>Resp Code</u> | <u>Case Type & No.</u> | <u>Case Status</u> |
|--|----------------------|----------------------|----------------------|----------------------|--|---------------------------|
| <u>Magar E. Magar dba Riverwood Mobile Home Park</u> | <u>12/20/88</u> | <u>12/28/88</u> | <u>3/1/89</u> | <u>Prtys</u> | <u>WQ-NWR-88-98 Civil Penalty</u> | <u>Discovery.</u> |
| <u>Joe Schumacher</u> | <u>1/4/89</u> | <u>1/5/89</u> | | <u>Prtys</u> | <u>AQ-WVR-89-114 Field Burning</u> | <u>Settlement action.</u> |
| <u>Aart & Sheri Falk</u> | <u>1/5/89</u> | <u>1/6/89</u> | <u>2/17/89</u> | <u>Prtys</u> | <u>AQ-FB-88-115</u> | <u>Scheduled.</u> |
| <u>Ken Kuderer</u> | <u>1/5/89</u> | <u>1/6/89</u> | <u>3/8/89</u> | <u>DEQ</u> | <u>AQ-FB-88-117</u> | <u>Discovery.</u> |
| <u>Air Rite Control, Inc.</u> | <u>1/9/89</u> | <u>1/11/89</u> | <u>2/28/89</u> | <u>Prtys</u> | <u>AQ-AB-NWR-88-85 \$2,600 Civil Penalty</u> | <u>Hearing Scheduled.</u> |
| <u>Rahenkamp Wrecking, Inc.</u> | <u>1/18/89</u> | <u>1/23/89</u> | <u>3/10/89</u> | <u>Prtys</u> | <u>AQ-AB-SWR-88-76 \$3,500 Civil Penalty</u> | <u>Hearing Scheduled.</u> |

A-36



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item C, March 3, 1989, EQC Meeting
Proposed Civil Penalty Settlement Agreements

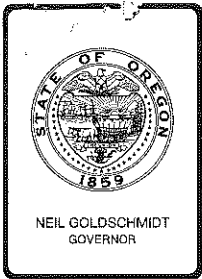
Background

Oregon Revised Statute 468.130(3) provides that any civil penalty may be remitted or mitigated upon such terms and conditions as the Environmental Quality Commission considers proper and consistent with the public health and safety. The statute further provides that the Commission may by rule delegate to the Department, upon such conditions as deemed necessary, all or part of the authority to remit or mitigate civil penalties. Oregon Administrative Rule 340-12-047 authorizes the Director of the Department to seek to compromise or settle any unpaid civil penalty which the Director deems appropriate. Any compromise or settlement executed by the Director shall not be final until approved by the Commission.

The proposed settlement agreement(s) for the Commission's consideration and approval are attached.

Fred Hansen
Fred Hansen *Kp*

GB8231M



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Request for Approval of Settlement Agreement in Case
No. OS-SWR-88-68, DEQ v. Claude St. Jean

On September 1, 1988, the Department issued Claude St. Jean (Respondent) a \$250 civil penalty for performing sewage disposal services without a license and a \$250 civil penalty for installing an on-site sewage disposal system without a permit, for a total civil penalty of \$500. This was Respondent's first penalty.

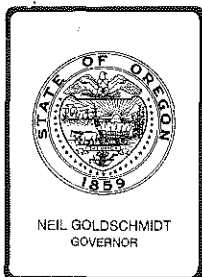
On September 12, 1988, Respondent requested a contested case hearing indicating he would not be available until January due to medical problems. On January 4, 1988, Linda Zucker, hearings officer, Larry Edleman, Department's attorney, and Respondent held a telephone conference. The telephone conference revealed that Respondent's financial condition is grave. Respondent stated he does not file income tax returns because his income is too low. He also stated that the property owner also has the responsibility of obtaining the permit. Respondent expressed a desire to become licensed.

The Department and Respondent have reached a proposed settlement. Respondent has agreed to pay \$50 in partial settlement and an additional \$50 no later than 90 days from the date of entry of the stipulated order. If, however, within the 90-day period Respondent makes a proper application to the Department for a sewage disposal license, the Department shall waive the additional \$50 penalty payment and allow Respondent to apply the payment to the application fee.

I believe this is an acceptable settlement and recommend Commission approval. Should you agree, please review, sign and date the attached Stipulation and Final Order.

Fred Hansen

Attachments
Nancy L. Couch:b
229-6610
January 18, 1989
GB8295



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Request for Approval of Settlement Agreement in Case
No. AQ-FB-88-114, DEQ v. Joe Schumacher

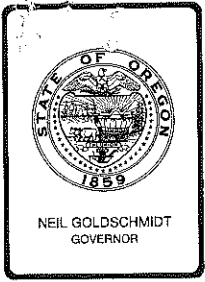
On December 16, 1988, the Department assessed a \$400 civil penalty against Joe Schumacher (Respondent) for failing to actively extinguish all flames and major smoke sources when prohibition conditions were imposed by the Department. The penalty was aggravated from a \$300 minimum civil penalty to \$400 because Respondent did not attend the fire. This was Respondent's first penalty.

On January 4, 1989, the Department received a letter from Respondent which formally requested the Department consider mitigation of the civil penalty. Respondent admitted that he was guilty of late burning. However, he maintains that the fire was attended at all times by field hands. Respondent wished to resolve the matter without a formal hearing.

The Department and Respondent have reached a proposed settlement of \$300. I believe this an acceptable settlement and recommend Commission approval. Should you agree, please review, sign and date the attached Stipulation and Final Order mitigating the \$400 civil penalty to \$300.

Fred Hansen
Fred Hansen *KP*

Attachments
Nancy L. Couch:b
229-6610
January 18, 1989
GB8235M



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: March 3, 1989
Agenda Item: D
Division: Management Services
Section: Administration

SUBJECT:

Pollution Control Tax Credits

PURPOSE:

Approve Pollution Control Tax Credit Applications.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)
- Authorize Rulemaking Hearing
 - Proposed Rules (Draft) Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Draft Public Notice Attachment
- Adopt Rules
 - Proposed Rules (Final Recommendation) Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Public Notice Attachment
- Issue Contested Case Decision/Order
 - Proposed Order Attachment
- Other: (specify)
 - Approve Pollution Control Tax Credits listed in the attachment. Attachment A

Meeting Date: March 3, 1989
Agenda Item: D
Page 2

DESCRIPTION OF REQUESTED ACTION:

Issue tax credit certificated for pollution control facilities listed in the attachment.

AUTHORITY/NEED FOR ACTION:

Required by Statute: ORS 468.150 - 468.190 Attachment
Enactment Date: _____
 Statutory Authority: _____ Attachment
 Amendment of Existing Rule: _____ Attachment
 Implement Delegated Federal Program: _____ 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
The pollution control tax credit program has been in effect since 1968 to provide credits for installation of pollution control equipment. The statute requires Commission approval of the amount certified for pollution control.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

None

PROGRAM CONSIDERATIONS:

None

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

Tax credits could be denied or action delayed if additional information is needed for a decision.

Meeting Date:
Agenda Item: D
Page 3

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the attached tax credits be approved.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Yes

ISSUES FOR COMMISSION TO RESOLVE:

None

INTENDED FOLLOWUP ACTIONS:

None

Approved:

Section:

Division:

Director:

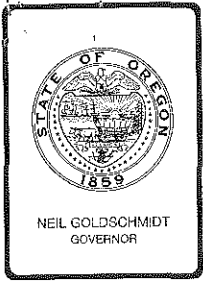
Roberta Young
Lynnea Taylor
Jul Hauer

Report Prepared By: Roberta Young

Phone: 229-6408

Date Prepared: 2-3-98

RYoung
Mar3-TC
2-3-89



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

To: Environmental Quality Commission
From: Director
Subject: Agenda Item D, March 3, 1989, EQC Meeting

TAX CREDIT APPLICATIONS

1. Issue tax credit certificates for pollution control facilities:

| | | |
|--------|------------------------|---|
| T-2274 | Lindsay Brothers Farms | Straw Storage Building |
| T-2316 | Hockett Farms, Inc. | Straw Storage Shed |
| T-2338 | Avison Timber Co. | Clarke's log yard residue reclaim system |
| T-2379 | Willamette Industries | Model No. 200 Baghouse, ducting, motors |
| T-2412 | Willamette Industries | Model No. 42 Baghouse |
| T-2430 | William & Trudy Radke | Tractor, Loafers, Flamer |
| T-2449 | Davidson Farms | Straw Storage Shed |
| T-2461 | Roseburg Paving | New structures, controller, belt scales, feeder & belts |
| T-2517 | Venell Farms, Inc. | 3 Straw Storage Sheds |
| T-2624 | Venell Farms, Inc. | Holland round baler and Allen rake |
| T-2704 | Oregon Steel Mills | Airflow Monitoring Station |

Proposed March 3, 1989 Totals:

| | |
|-----------------------|--------------|
| Air Quality | \$ 1,214,777 |
| Water Quality | -0- |
| Hazardous/Solid Waste | -0- |
| Noise | -0- |
| | <hr/> |
| | \$ 1,215,000 |

1989 Calendar Year Totals not including Tax Credits Certified at this EQC meeting:

| | |
|-----------------------|------------|
| Air Quality | \$ 227,723 |
| Water Quality | 131,982 |
| Hazardous/Solid Waste | -0- |
| Noise | -0- |
| | <hr/> |
| | \$ 359,705 |

Fred Hansen

C. Nuttall:y
(503) 229-6484
February 14, 1989
MY8189

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

1. Applicant

Lindsay Brothers Farms
Robert G. & James E. Lindsay
30545 Lindsay Drive
Shedd, OR 97377

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

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

2. Description of Claimed Facility

The facility described in this application is a 106' x 138' x 20' three-sided pole building straw storage shed located at 30737 Green Valley Road, Shed, Oregon. The building will provide cover for 1,200 tons of baled straw per year. The land and building are owned by the applicants. The straw is exported to Japan for livestock feed.

Claimed facility cost: \$42,260
(Accountant's Certification was provided.)

3. Procedural Requirements

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

The facility has met all statutory deadlines in that:

- a. The request for preliminary certification was filed April 7, 1987, more than 30 days before construction commenced on July 1, 1987.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Construction of the facility was substantially completed on July 15, 1987, and the application for final certification was found to be complete on December 22, 1988, within two 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 reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275, and the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(1). The facility also meets the definition provided in OAR 340-16-025 (2) (f) (A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

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

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

The facility promotes the conversion of a waste product (straw) into a salable commodity by providing straw storage.

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

There is no return on investment for this facility because there is a negative average annual cash flow.

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

The method chosen is the accepted method for reduction of air pollution. The method is the least costly most effective method of reducing air contaminants.

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

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$42,260, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-2274.

J. Britton:ka
(503) 686-7837
December 23, 1988

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

1. Applicant

Robert Hockett, President
Hockettt Farms, Inc.
7776 St. Paul Highway NE
St. Paul, Oregon 97137

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

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

2. Description of Claimed Facility

The facility described in this application is a 66' x 175' straw storage shed, located at 13896 Butteville Road NE, Gervais, Oregon. The building will provide cover for straw from 600 acres of grass seed production. The land and buildings are owned by the applicant.

Claimed facility cost: \$36,901.25
(Accountant's Certification was provided.)

3. Procedural Requirements

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

The facility has met all statutory deadlines in that:

- a. The request for preliminary certification was filed July 27, 1987, after construction commenced on June 20, 1987.

However, the applicant relied on information provided by Department personnel which resulted in applicant's failure to file a timely application for preliminary certification for the facility which would otherwise qualify for tax credit certification pursuant to ORS 468.150 to 468.190.

- b. The request for preliminary certification was approved before application for final certification was made.
- c. Construction of the facility was substantially completed on August 15, 1987, and the application for final certification was found to be complete on January 24, 1989, within two 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 reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275, and the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(1). The facility also meets the definition provided in OAR 340-16-025 (2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

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

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

The facility promotes the conversion of a waste product (straw) into a salable commodity by providing straw storage.

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

There is no return on investment for this facility because there is a negative average annual cash flow.

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

The method chosen is the accepted method for reduction of air pollution. The method is the least costly most effective method of reducing air contaminants.

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

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$36,901.25, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-2316.

J. Britton:ka
(503) 686-7837
January 26, 1989

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Avison Timber Company
Box 419
Molalla, OR 97038

The applicant leases and operates a sawmill at Molalla, Oregon.

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

2. Description of Facility

The facility consists of a Clarke's log yard residue reclaim system.

Claimed Facility Cost: \$624,142
(Accountant's Certification was provided).

3. Procedural Requirements

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

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed August 27, 1987 less than 30 days before installation commenced on August 31, 1987. However, according to the process provided in OAR 340-16-015(1)(b). The application was reviewed by DEQ staff and the applicant was notified that the application was complete and that installation could commence.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Installation of the facility was substantially completed on November 1, 1988 and the application for final certification was found to be complete on November 30, 1988 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 by recycling.

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

The system will output up to 14,000 cubic yards of usable product consisting of rock, fine mulch and bark each month. The operation is in compliance with all statutes and Department rules.

- 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 sole purpose of the facility is to recover products for reuse and sale.

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

Using cost of the facility (\$624,142) and average annual cash flow (\$50,230), a return on investment factor of 12.43 was calculated. Using the tables in OAR 340-16-030, a return on investment of "0" was determined.

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

This factor is not applicable because there are no other methods available to reclaim this material.

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

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

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

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

Based on the findings, 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 by recycling.

This is accomplished by the use of a materials 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 \$624,142 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2338.

Steve Greenwood:b
SB8221
(503) 229-5782
January 12, 1989

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

1. Applicant

Willamette Industries, Inc.
Duraflake Division
3800 First Interstate Tower
1300 SW 5th Avenue
Portland, OR 97201

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

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

2. Description of Facility

The facility is a Western Pneumatics Model No. 200 baghouse, ducting, two 50 horsepower (hp) motors, three 25 hp motors and two 2 hp motors.

Claimed Facility Cost: \$101,689.33 adjusted to \$97,371.33 as explained below.
(Accountant's Certification was provided).

The claimed cost (\$101,689.33) by the applicant included the baghouse, ducting, two cyclones and 7 motors. Only the baghouse, ducting from the cyclones and the motors are eligible for pollution control tax credit. The other elements of the system are process related and are used to return material to the production line and to keep dusting from occurring inside the building. The company has provided the cost of the cyclones and non-allowed ducting (\$4,318.00). The net adjusted allocable cost is \$97,371.33.

3. Procedural Requirements

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

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed November 17, 1987, more than 30 days before construction commenced on December 20, 1987.
- b. The request for preliminary certification was approved before application for final certification was made.

- c. Installation of the facility was substantially completed on January 15, 1988 and the application for final certification was found to be complete on September 27, 1988 within 2 years of substantial completion of the facility.

4. Evaluation of Application

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

This control is accomplished by elimination of air contaminants as defined in ORS 468.275.

- b. Eligible Cost Findings

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

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

The facility does not recover or convert waste products into a salable or usable commodity. The material collected by the facility is disposed of in a landfill.

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

There is no annual return on investment for this facility.

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

There is no known alternative.

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

There is no savings from the facility. The cost of maintaining and operating the facility is \$33,796.00 annually.

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

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

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

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the sole purpose of the facility is to control a substantial quantity of air pollution.

This control is accomplished by elimination of air contaminants as defined in ORS 468.275.

- 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 \$97,371.33 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2379.

Terri Sylvester:d
AD4514
(503) 229-5057
January 26, 1989

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Willamette Industries, Inc.
Duraflake Division
3800 First Interstate Tower
1300 SW 5th Avenue
Portland, OR 97201

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

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

2. Description of Facility

The facility is a Western Pneumatics Model No. 42 primary baghouse to control wood dust emissions from a cyclone on a product transfer system from the No. 3 Green Dryer to the screenhouse.

Claimed Facility Cost: \$25,350.39 adjusted to \$24,200.39 as explained below.

The claimed cost (\$25,350.39) by the applicant included the ducting, a primary cyclone separator, and the motor/fan assembly and a bagfilter. Only the bagfilter is considered to be eligible for pollution control tax credit. The other elements of the system are part of the process of transporting raw material. The company has provided a cost of the bagfilter and directly associated hardware, and installation (\$24,200.39). The net adjusted allocable cost of \$24,200.39.

(Accountant's Certification was provided).

3. Procedural Requirements

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

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed January 8, 1988 more than 30 days before installation commenced on February 27, 1988.
- b. The request for preliminary certification was approved before application for final certification was made.

- c. Installation of the facility was substantially completed on March 8, 1988 and the application for final certification was found to be complete on September 27, 1988 within 2 years of substantial completion of the facility.

4. Evaluation of Application

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

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

- b. Eligible Cost Findings

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

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

The facility does not recover or convert waste products into a salable or usable commodity. The minor amount of wood dust collected is disposed of at a land fill.

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

There is no annual return on investment for this facility.

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

There is no known alternative.

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

There is no savings from the facility. The cost of maintaining and operating the facility is \$6,132.00 annually.

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

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

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

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the sole purpose of the facility is to reduce a substantial quantity of air pollution.

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

- 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 \$24,200.39 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2412.

Terri Sylvester:d
AD3955
(503) 229-5057
January 27, 1989

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

1. Applicant

William & Trudy Radke
31014 Green Valley Road
Shedd, Oregon 97377

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

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

2. Description of Claimed Equipment

The equipment described in this application is a 4240 John Deere tractor, two loafers and a propane flamer used to remove straw from fields and provide alternate sanitation to fields that would otherwise be burned. The equipment is owned by the applicant.

Claimed equipment cost: \$24,650.00
(Accountant's Certification was provided.)

3. Procedural Requirements

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

The equipment has met all statutory deadlines in that:

- a. The request for preliminary certification was filed January 11, 1988, more than 30 days before purchase on February 23, 1988.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Purchase of the equipment was substantially completed on February 23, 1988, and the application for final certification was found to be complete on January 5, 1989, within two years of substantial purchase of the equipment.

4. Evaluation of Application

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

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275, and the equipment's qualification as a "pollution control facility", defined in OAR 340-16-025(1). The equipment also meets the definition provided in OAR 340-16-025 (2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

b. Eligible Cost Findings

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

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

The equipment promotes the reduction of air pollution by removing straw from fields which would otherwise be open burned.

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

Using Table 1 of OAR 340-16-030 for a life of 10 years, the annual percent return on investment is 0%.

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

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

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

The cost of maintaining and operating the equipment is \$16,440 annually.

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$24,650, with 100% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-2430.

J. Britton:ka
(503) 686-7837
January 5, 1989

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Don Davidson
Davidson Farms, Inc.
18361 River Road NE
St. Paul, OR 97137

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

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

2. Description of Claimed Facility

The facility described in this application is a straw storage shed (70' x 168') located at 4238 Davidson Road NE, St. Paul, Oregon. The building will provide cover for 1,000 tons of straw. The land and building are owned by the applicant.

Claimed facility cost: \$51,211.50
(Accountant's Certification was provided.)

3. Procedural Requirements

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

The facility has met all statutory deadlines in that:

- a. The request for preliminary certification was filed February 29, 1988, more than 30 days before construction commenced on June 20, 1988.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Construction of the facility was substantially completed on July 27, 1988, and the application for final certification was found to be complete on December 13, 1988, within two 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 reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275, and the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(1). The facility also meets the definition provided in OAR 340-16-025 (2)(f)(A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

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

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

The facility promotes the conversion of a waste product (straw) into a salable commodity by providing straw storage.

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

There is no return on investment for this facility because there is a negative average annual cash flow.

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

The method chosen is the accepted method for reduction of air pollution. The method is the least costly most effective method of reducing air contaminants.

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

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$51,211.50, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-2449.

B Finneran:ka
(503) 686-7837
December 14, 1988

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

1. Applicant

Roseburg Paving Company
P.O. Box 1427
Roseburg, OR 97470

The applicant owns and operates a stationary drum mix asphaltic concrete plant and portable rock crusher in Roseburg, Oregon.

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

2. Description of Facility

Roseburg Paving Company operates an asphalt paving hot mix manufacturing plant. Aggregates are crushed at an off site gravel deposit and hauled to a central yard for processing to hot mix. While the plant has operated well within the state regulations, the surrounding site has had a long-term problem with fugitive dust control. The following facilities were installed to help control the fugitive dusts.

Structures were constructed around the aggregate transfer points on the asphalt hot mix plant. The structures protect the transfer points from wind. Without wind less dust becomes entrained in the natural air currents; hence, the level of fugitive dusts is reduced. Specifically, a house was constructed around the grizzly on the cold feed belt. And, a house was constructed around the transfer point from the cold feed belt onto the incline conveyor. An enclosure was also erected over the feeder bins.

To reduce fugitives that originate from the #10-0 aggregate stockpile in the yard -- ie., dust that becomes airborne from wind blowing across the #10-0 aggregate stockpile -- sand was blended with #10-0 during the manufacturing of the #10-0 at the crusher. Historically, sand was blended during the hot mix production at the asphalt hot mix plant.

Sand has a moisture content of 6% to 10%, while manufactured #10-0 is only 1% to 2%. By blending sand with the #10-0 at the off site crusher, the moisture content of the #10-0 was increased BEFORE it was hauled into the central yard for processing.

In order to blend these materials a controller, two belt scales, a feeder, and various belts were purchased.

Claimed Facility Cost: \$41,732.02
(Accountant's Certification was provided).

3. Procedural Requirements

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

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed March 7, 1988 less than 30 days before construction commenced on March 15, 1988. However, according to the process provided in OAR 340-16-015(1)(b), the application was reviewed by DEQ staff and the applicant was notified that the application was complete and that construction could commence.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Construction of the facility was substantially completed on June 6, 1988, and the application for final certification was found to be complete on January 4, 1989, 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 reduce air pollution.

The conditions that existed and would have existed had the above equipment not been installed, are best described in "Stipulation and Final Order No. AQ-SWR-87-95" and the related documents referred to therein. In summary, the central plant is located immediately north of a trailer court. The prevailing winds from the north created a continual fugitive dust problem with the neighbors. The completed projects described herein have greatly diminished dust re-entrainment.

- b. Eligible Cost Findings

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

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

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

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

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

There is no return on investment. The facilities are entirely for pollution reduction.

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

The Department offered 12 suggestions to control fugitive emissions. Many of these were subsequently implemented, but the problem persisted. Tax credits for facilities claimed herein have substantially reduced fugitive dust emissions.

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

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

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

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$41,732.02 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2461.

Robert Harris:d
AD4530
(503) 229-5259
January 26, 1988

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

1. Applicant

Venell Farms, Inc.
Clarence & Rosetta Venell
30742 Venell Place
Corvallis, Oregon 97333

The applicant owns and operates a grass seed farm operation in Corvallis, 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 three straw storage sheds (each 106' x 144' x 22') located at 30716 Highway 99W, Corvallis, Oregon. The buildings will provide cover for 4,080 tons of baled straw per year. The land and buildings are owned by the applicant.

Claimed facility cost: \$193,255.74
(Accountant's Certification was provided.)

3. Procedural Requirements

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

The facility has met all statutory deadlines in that:

- a. The request for preliminary certification was filed June 20, 1988 less than 30 days before construction commenced on June 25, 1988.

However, according to the process provided in OAR 340-16-015(1)(b), the application was received by DEQ staff and the applicant was notified that the application was complete, and construction could commence.

- b. The request for preliminary certification was approved before application for final certification was made.
- c. Construction of the facility was substantially completed on July 25, 1988, and the application for final certification was found to be complete on January 25, 1989, within two 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 reduce a substantial quantity of air pollution.

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275, and the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(1). The facility also meets the definition provided in OAR 340-16-025 (2) (f) (A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

- b. Eligible Cost Findings

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

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

The facility promotes the conversion of a waste product (straw) into a salable commodity by providing straw storage.

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

There is no return on investment because there is a negative average annual cash flow.

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

The method chosen is the accepted method for reduction of air pollution. The method is the least costly most effective method of reducing air contaminants.

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 costs of \$7.00 per ton of straw to rake, bale and transport as a result of the construction of the facility.

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$193,255.74, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-2517.

J. Britton:ka
(503) 686-7837
January 26, 1989

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

1. Applicant

Venell Farms, Inc.
Clarence & Rosetta Venell
30742 Venell Place
Corvallis, Oregon 97333

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

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

2. Description of Claimed Equipment

The equipment described in this application is a New Holland round baler and an Allen rake used to remove straw from fields that would otherwise be burned. The equipment is owned by the applicant.

Claimed equipment cost: \$31,000
(Accountant's Certification was provided.)

3. Procedural Requirements

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

The equipment has met all statutory deadlines in that:

- a. The request for preliminary certification was filed August 29, 1988, after purchase on July 30, 1988.

However, the applicant relied on information provided by Department personnel which resulted in applicant's failure to file a timely application for preliminary certification for the facility which would otherwise qualify for tax credit certification pursuant to ORS 468.150 to 468.190.

- b. The request for preliminary certification was approved before application for final certification was made.
- c. Purchase of the equipment was substantially completed on July 30, 1988, and the application for final certification was found to be complete on January 25, 1989, within two years of substantial purchase of the equipment.

4. Evaluation of Application

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

This reduction is accomplished by reduction of air contaminants, defined in ORS 468.275, and the equipment's qualification as a "pollution control facility", defined in OAR 340-16-025(1).

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

- b. Eligible Cost Findings

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

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

The equipment promotes the reduction of air pollution by removing straw from fields which would otherwise be open burned.

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

There is no return on investment for this equipment because there is a negative average annual cash flow.

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

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

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

There is an increase in costs of \$7 per ton of straw to rake, bale and transport as a result of the purchase of this equipment.

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

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

5. Summation

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

6. Director's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$31,000, with 100% allocated to pollution control, be issued for the equipment claimed in Tax Credit Application Number TC-2624.

J. Britton:ka
(503) 686-7837
January 25, 1989

State of Oregon
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

1. Applicant

Oregon Steel Mills, Inc.
P.O. Box 5368
Portland, OR 97228

The applicant owns and operates a steel rolling and finishing mill located at 14400 N. Rivergate Blvd., in Portland, Oregon.

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

2. Description of Facility

Continuous air flow monitoring station.

Claimed Facility Cost: \$48,055.13
(Accountant's Certification was provided).

3. Procedural Requirements

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

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed December 14, 1984, more than 30 days before installation commenced on April 25, 1986.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Installation of the facility was substantially completed on October 13, 1987 and the application for final certification was found to be complete on December 29, 1988 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 in the Air Contaminant Discharge Permit 26-1865, paragraph 10c, and by the Federal Government in 40 CFR 60.274a(b).

The facility, a flow monitoring station installed in the baghouse air duct, was required to continually assess dust collection system performance and to provide early warning of any malfunction or failure in the dust collection system. This effectively reduces air pollution to a minimum by applying corrective action when a problem is detected.

b. Eligible Cost Findings

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

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

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

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

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

There is no return on the investment in the facility resulting from installation of the flow monitoring station.

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

The requirement to install the flow monitoring station was a regulatory requirement. Therefore, there was no alternative.

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

There is no savings from the facility. The cost of maintaining and operating the facility is approximately \$6,000.00 annually.

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

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

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

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department.
- 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 \$48,055.13 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-2704.

William J. Fuller:d
AD4379
(503) 229-5749
January 9, 1989



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: March 3, 1989
Agenda Item: F
Division: AQ
Section: VIP

SUBJECT:

Standard for Motor Vehicle Fuels

PURPOSE:

To reduce the release of volatile organic compounds (VOC) from gasoline. By establishing a maximum limit of gasoline volatility for the summer months, this will reduce the VOC emitted and will help meet the ozone standard for 1989 and future years. The gasoline sold in western Oregon, will have a maximum Reid Vapor Pressure (RVP) of 10.5 psi from May 15 through September 15 of each year. The proposed rule also defines sampling methods and established civil penalties.

ACTION REQUESTED:

- | | | |
|-------------------------------------|---------------------------------------|--------------------------|
| <input type="checkbox"/> | Work Session Discussion | |
| <input type="checkbox"/> | General Program Background | |
| <input type="checkbox"/> | Program Strategy | |
| <input type="checkbox"/> | Proposed Policy | |
| <input type="checkbox"/> | Potential Rules | |
| <input type="checkbox"/> | Other: (specify) | |
| <input checked="" type="checkbox"/> | Authorize Rulemaking Hearing | |
| | Proposed Rules (Draft) | Attachment <u>A</u> |
| | Rulemaking Statements | Attachment <u>B</u> |
| | Fiscal and Economic Impact Statement | Attachment <u>B</u> |
| | Draft Public Notice | Attachment <u>C</u> |
| <input type="checkbox"/> | Adopt Rules | |
| | Proposed Rules (Final Recommendation) | Attachment <u> </u> |
| | Rulemaking Statements | Attachment <u> </u> |
| | Fiscal and Economic Impact Statement | Attachment <u> </u> |
| | Public Notice | Attachment <u> </u> |
| <input type="checkbox"/> | Issue Contested Case Decision/Order | |
| | Proposed Order | Attachment <u> </u> |
| <input type="checkbox"/> | Other: (specify) | |

Meeting Date: March 3, 1989
Agenda Item: F
Page 2

DESCRIPTION OF REQUESTED ACTION:

Authorize public hearings for the purposes of obtaining comment on the rules proposed in Attachment A.

AUTHORITY/NEED FOR ACTION:

| | | | |
|-------------------------------------|--|------------|----------|
| <input type="checkbox"/> | Required by Statute: _____ | Attachment | _____ |
| | Enactment Date: _____ | | |
| <input checked="" type="checkbox"/> | Statutory Authority: <u>ORS 468.295</u> | Attachment | <u>D</u> |
| <input type="checkbox"/> | Amendment of Existing Rule: _____ | Attachment | _____ |
| <input type="checkbox"/> | Implement Delegated Federal Program: _____ | Attachment | _____ |
| <input type="checkbox"/> | Other: _____ | Attachment | _____ |
| <input checked="" type="checkbox"/> | Time Constraints: (explain) | | |

At the January 19, 1989 EQC workshop, the Commission directed the Department to proceed on developing a gasoline volatility standard. A gasoline volatility standard is needed to help ensure that the Portland area maintains compliance with the ambient air, health standard for ozone through the 1989 ozone season. The effective date of the proposed rule would be June 15, 1989.

DEVELOPMENTAL BACKGROUND:

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

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The regulation would require a gasoline volatility standard in western Oregon. The proposed rule uses the geographic designation specified in ASTM D 439 of 122° longitude. This is roughly just east of the Cascade summit. This is the regional dividing line for the distribution of fuel between the western and eastern portions of both states.

Meeting Date: March 3, 1989
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The fuel distribution systems in the Pacific Northwest are such that this will result in all fuels distributed west of the Cascade mountains in both states, will meet the volatility standard.

This proposal has primary application to the major petroleum refiners, suppliers, fuel distribution system operations, and retail outlets. Refiners will need to adjust the blend of their summertime gasoline. The proposal will affect gasoline distribution between May through September. Because of the change in the summertime gasoline formula, there is projected an approximate 1¢/gal increase in the retail price of gasoline during 1989/1990. The cost will go up because butane which is relatively inexpensive will need to be replaced by less volatile, more expensive hydrocarbons.

In the future, should methanol or ethanol become a major component in gasoline in this region, this regulation may need to be reviewed. That is because alcohol/gasoline fuels have an inherently higher vapor pressure when splash blended, (splash blending is the dumping of alcohol into the tanker truck prior to filling with gasoline; mixing takes place while tanker in transit). Currently in this region, there is not appreciable use of alcohol blended fuels.

PROGRAM CONSIDERATIONS:

This proposal will require audits of industry records. For 1989, audit will be done within existing personnel resources. Periodic inspection and testing authority is included in the draft rule if it is determined that audit is not an adequate enforcement mechanism. If periodic inspections by Department staff are necessary, there would need to be a staffing commitment.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

Compliance with the ozone standard is considered critical for Portland area. Gasoline volatility controls had been proposed by EPA to be effective this year. EPA has not, and does not appear to be implementing gasoline volatility controls. In order to ensure compliance with the ozone standard for 1989, the state cannot wait for EPA's action. Because of the EPA inaction, the state was left with three alternatives:

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Agenda Item: F
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- 1) Do nothing and wait for EPA to implement national volatility standards for gasoline.
- 2) Propose a similar strategy at the state level, and implement a gasoline volatility standard.
- 3) Propose other strategies that would be harsher and difficult to implement in a short term.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

As indicated at the workshop meeting of January 19, 1989, adopting a maximum RVP limit on gasoline should ensure compliance with the ozone standard. The recommendation is to authorize hearing for the purposes of gathering public comment on a proposed maximum RVP limit on gasoline.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

This strategy will help ensure attainment and maintenance of the ozone standard. This will promote the health and welfare of the general public. This type of environmental compliance posture will help with continued economic growth.

ISSUES FOR COMMISSION TO RESOLVE:

At the workshop meeting of January 19, 1989, the Commission directed the Department to proceed preparing rules for a gasoline volatility standard. The purpose for such action is to ensure compliance with the ozone standard for the Portland area.

INTENDED FOLLOWUP ACTIONS:

1. Conduct public hearings on April 17 and 19, 1989
2. Return to the Commission at the June 2, 1989, meeting for rules consideration

Meeting Date: March 3, 1989
Agenda Item: F
Page 5

Approved:

Section: Nick J. J. J.

Division: Nick J. J. J.

Director: Full House

Report Prepared By: Bill Jasper

Phone: 229-5081

Date Prepared: February 15, 1989

BJ:k
AK1398 (2/89)

Attachment A

STANDARD FOR AUTOMOTIVE GASOLINE

OAR 340-22-300 Reid Vapor Pressure for Gasoline

(1) (a) No person shall sell or supply as a fuel for motor vehicles, during the period of May 15 through October 15 of each year, a gasoline having a Reid Vapor Pressure greater than ten and a half pounds per square inch (10.5 psi).

(b) This section shall not apply to gasoline delivered to retail outlets more than 14 days immediately preceding the periods established.

(2) (a) As used in this regulation, "gasoline" means any petroleum distillate having a Reid Vapor Pressure of more than four pounds as defined by ASTM Method D 323, and meeting the other general specifications defined by ASTM D 439.

(b) ASTM refers to the standards test methods and procedures published by the American Society for Testing and Materials.

(3) The Reid Vapor Pressure specified in paragraph (1) of this section shall be measured according to the procedures established in ASTM D 323.

(4) The geographic coverage of this regulation shall be consistent with boundary specified in ASTM D 439, specifically all of Oregon, west of 122° Longitude.

(5) Samples submitted to the Department by refiners or distributors of gasoline shall be sampled and tested pursuant to methods established by ASTM D 323.

(6) The Department reserves the right to audit records and to sample gasoline for the purposes of compliance. Samples of petroleum shall be sampled pursuant and tested by methods established by ASTM D 323 or by methods established under the California Air Resources rule, Title 13 §2251.

(7) Pursuant to ORS 468.130, civil penalties of not more than \$10,000 per day may be assessed for violation of paragraph 1 of this section.

(8) The effective date of this section is June 15, 1989.

Attachment B

Statement of Need and Fiscal and Economic Impact Required for Rulemaking

Statement of Need:

The Portland metropolitan area remains in non-attainment for ozone, as designated by EPA. Because of this non-attainment status, additional controls on ozone precursor VOC emissions are proposed. The high volatility of gasoline in the summer months increases the emissions from gasoline sales from vehicular and fuel evaporative losses. Because of the environmental impact on the health of area residents and the potential economic impacts associated with non-attainment status, there is a need to insure compliance with the ozone standard during the 1989 ozone season and beyond.

Statutory Authority:

This rule is being proposed under the Environmental Quality Commission's authority, pursuant to ORS 468.295.

Documents Relied Upon:

EPA Notice of Proposed Rulemaking on the subject of Fuel Volatility, August 19, 1987. EQC Agenda Item 1, January 19, 1989. ASTM D 439, Standard Specification for Automotive Gasoline. California Air Resources Board administrative rules, Title 13, §2251.

Land Use Consistency:

The proposed rule appears to affect land use and to be consistent with Statewide Planning Goals.

With regard to Goal 6, Air, Water, and Land Resources Quality, this rule is designed to improve and maintain air quality and is consistent with that goal.

Fiscal and Economic Impact Statement:

Who is directly impacted, and where is the impact? The petroleum refiners who manufacturer and supply the fuel are directly affected. The petroleum industry, based primarily in Puget Sound, will need to reformulate gasoline composition in order to have a product which meets the proposed standard. It will do this by substituting more expensive components for cheaper, more volatile butane.

Who is indirectly impacted, and where is the impact? The general public will benefit from this proposal because of the compliance with national air quality ozone standards.

The motoring public will be impacted because of the price increase associated with the change in gasoline formula. The increase is estimated to be about 1¢ per gallon at the pump. Some industry sources indicate that this cost estimate may be low. The cost increase is due to pass through costs from manufacture.

Some of the cost increase should be recouped from potential increased fuel economy. However, such fuel economy gains, on the order of 1%, would not normally be noticed by the average motorist.

Small businesses will benefit from attainment of the air quality standards. Attainment means that economic sanctions would not be applied in this region, and this should provide a favorable climate for business expansion. Small businesses will experience increased costs due to increased fuel cost.

Large business will benefit from attainment in the same manner as small business. Cost increases will be similar.

Local Government will benefit from attainment in the same manner as business. Cost increases will be similar.

State Governments will benefit from attainment. Redesignation to compliance would free state government from the onerous requirements EPA has proposed for areas that continue to violate the ozone standard beyond 1987. The implementation of this limit on fuel volatility will provide a significant decrease in pollutant emissions; however, the effects of meteorology play a very large role in ozone formation and, therefore, attainment cannot be guaranteed. Because of petroleum marketing areas, this rule is estimated to impact all of western Oregon and Washington. As such, the State of Washington will receive air pollution benefit from reduced VOC emissions earlier than if they were to wait for EPA action. This will benefit air quality in the Seattle area.

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

NOTICE OF PUBLIC HEARING OAR 340-22-300

Hearing Date: April 17 and 19, 1989
Comments Due: April 21, 1989

**WHO IS
AFFECTED:**

Refiners and distributors of gasoline are directly affected, and will need to modify the blends of gasoline sold during the summer months. Motorists and other users of gasoline will be indirectly affected by this proposal, because the refiner's costs will be passed through to the ultimate user. The price of gas could increase 1¢ per gallon.

**WHAT IS
PROPOSED:**

The Department of Environmental Quality is proposing to adopt OAR 340-22-300 to establish a standard for automotive gasoline. The proposal would establish a maximum Reid Vapor Pressure for automotive gasoline of 10.5 psi during the period of May 15 through September 15. Because of the way gasoline is marketed, this would apply to all Oregon, west of 122° longitude (west of the Cascades). The effective date for 1989 would be June 15, 1989. Sampling procedures and civil penalty authority is included.

**WHAT ARE THE
HIGHLIGHTS:**

During the past 15 years, the volatility of gasoline, as measured by a test called Reid Vapor Pressure, has been increasing. Gasoline vapors from marketing and on vehicle evaporative losses are significant contributors to concentrations of ground level ozone in the Portland area. Reducing the volatility of gasoline to previously manufactured levels can be of significant benefit in state efforts to meet the federal ozone health standard.

A maximum Reid Vapor Pressure of 10.5 psi would be established. Refiners and distributors of automotive gasoline would need to supply and sell the reduced volatility gasoline during the summer months. This is estimated to provide a 5000 kg/day VOC emission reduction, and help insure compliance with the ozone standard.

Why would it cost more? The refinery cost increases, due to gasoline reformulation, would be expected to be passed through to gasoline users. Studies at the national level have indicated that this could result in about a 1¢ per gallon price increase. Some petroleum industry sources have indicated that the cost may be higher.

G-1



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.

HOW TO
COMMENT:

Copies of the complete proposed rule package may be obtained from the Air Quality Division in Portland 811 S.W. Sixth Avenue or the regional office nearest you. For further information contact Bill Jasper at (503) 229-5081.

Public hearings will be held before a hearings officer at:

| | |
|------------------------------|------------------------------|
| 10:00 a.m. | 7:00 p.m. |
| April 17, 1989 | April 19, 1989 |
| Portland Building Auditorium | Portland Building Auditorium |
| 1120 SW Fifth | 1120 SW Fifth |
| Portland, Oregon | Portland, Oregon |

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ, but must be received by no later than April 21, 1989.

WHAT IS THE
NEXT STEP:

After public hearing the Environmental Quality Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted rules will be submitted to the U. S. Environmental Protection Agency as part of the State Clean Air Act Implementation Plan. The Commission's deliberation should come in June 2, 1989, as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need, Fiscal and Economic Impact Statement, and Land Use Consistency Statement are attached to this notice.

AK1354 (2/89)

468.295 Air purity standards; air quality standards. (1) By rule the commission may establish areas of the state and prescribe the degree of air pollution or air contamination that may be permitted therein, as air purity standards for such areas.

(2) In determining air purity standards, the commission shall consider the following factors:

(a) The quality or characteristics of air contaminants or the duration of their presence in the atmosphere which may cause air pollution in the particular area of the state;

(b) Existing physical conditions and topography;

(c) Prevailing wind directions and velocities;

(d) Temperatures and temperature inversion periods, humidity, and other atmospheric conditions;

(e) Possible chemical reactions between air contaminants or between such air contaminants and air gases, moisture or sunlight;

(f) The predominant character of development of the area of the state, such as residential, highly developed industrial area, commercial or other characteristics;

(g) Availability of air-cleaning devices;

(h) Economic feasibility of air-cleaning devices;

(i) Effect on normal human health of particular air contaminants;

(j) Effect on efficiency of industrial operation resulting from use of air-cleaning devices;

(k) Extent of danger to property in the area reasonably to be expected from any particular air contaminants;

(l) Interference with reasonable enjoyment of life by persons in the area which can reasonably be expected to be affected by the air contaminants;

(m) The volume of air contaminants emitted from a particular class of air contamination source;

(n) The economic and industrial development of the state and continuance of public enjoyment of the state's natural resources; and

(o) Other factors which the commission may find applicable.

(3) The commission may establish air quality standards including emission standards for the entire state or an area of the state. The standards shall set forth the maximum amount of air pollution permissible in various categories of air con-

taminants and may differentiate between different areas of the state, different air contaminants and different air contamination sources or classes thereof. [Formerly 449.785]

468.300 When liability for violation not applicable. The several liabilities which may be imposed 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 this chapter upon persons violating the provisions of any rule, standard or order of the commission pertaining to air pollution shall not be so construed as to include any violation which was caused by an act of God, war, strife, riot or other condition as to which any negligence or willful misconduct on the part of such person was not the proximate cause. [Formerly 449.825]

468.305 General comprehensive plan.

Subject to policy direction by the commission, the department shall prepare and develop a general comprehensive plan for the control or abatement of existing air pollution and for the control or prevention of new air pollution in any area of the state in which air pollution is found already existing or in danger of existing. The plan shall recognize varying requirements for different areas of the state. [Formerly 449.762]

468.310 Permits. By rule the commission may require permits for air contamination sources classified by type of air contaminants, by type of air contamination source or by area of the state. The permits shall be issued as provided in ORS 468.065. [Formerly 449.727]

468.315 Activities prohibited without permit; limit on activities with permit. (1) Without first obtaining a permit pursuant to ORS 468.065, no person shall:

(a) Discharge, emit or allow to be discharged or emitted any air contaminant for which a permit is required under ORS 468.310 into the outdoor atmosphere from any air contamination source.

(b) Construct, install, establish, develop, modify, enlarge or operate any air contamination source for which a permit is required under ORS 468.310.

(2) No person shall increase in volume or strength discharges or emissions from any air contamination source for which a permit is required under ORS 468.310 in excess of the permissive discharges or emission specified under an existing permit. [Formerly 449.731]

468.320 Classification of air contamination sources; registration and reporting of sources. (1) By rule the commis-

Attachment E

MEMORANDUM

To: Environmental Quality Commission
From: Vehicle Inspection Staff
Subject: Agenda Item __, March 3, 1989, EQC Meeting

Discussion on Volatility Standards for Automotive Gasoline

Background

At the Environmental Quality Commission workshop meeting of January 19, 1989, the Commission reviewed information on the subject of volatile organic compounds (VOC) - specifically gasoline volatility and how it relates to ambient ozone levels in the Portland area. The Commission indicated that the Department should proceed to develop a hearings request and rules package on a gasoline volatility cap. The rule would establish a maximum limit on gasoline volatility, a measure of how easy gasoline evaporates, during the summer months.

The report presented at the workshop is included as Attachment G of the main report. 1989 is a critical year for the Portland metropolitan area to demonstrate compliance with the national ozone standard. Under terms of the federal Clean Air Act, economic sanctions can be applied to areas that fail to achieve the ambient air health standards.

Assuring compliance with ozone levels in the Portland area is no easy matter. As indicated in Attachment F, VOC emissions from gasoline marketing and onboard vehicle losses are a sizable part of the state's emission inventory. There are only three control techniques that are available to the state for controlling these type of emissions: Stage I, Stage II, and gasoline volatility controls. Stage I, the control of gasoline evaporative emissions during the wholesale refueling (between distributor, tanker truck, and service station) is in place. Stage II, the control of gasoline emissions during the fueling of vehicles at the service station, is not currently used in Oregon. The remaining control strategy available at the state level, volatility limits on gasoline, is what is being discussed.

In 1987, United States Environmental Protection Agency (EPA), issued a notice of proposed rule making (NPRM) for gasoline volatility. It also included standards that would have required the auto manufactures to improve onboard gasoline vapor capture. EPA has not finalized its gasoline volatility standard.

Backup Plan to a National Gasoline Volatility Standard

EPA's NPRM proposed a two step strategy to lower the allowable Reid Vapor Pressure limit for motor gasoline from its current levels. As it would affect western Oregon, gasoline volatility would have initially been dropped to a 10.5 psi RVP (RVP - Reid Vapor Pressure is a specific test method that measures gasoline volatility), and then about two to three years later, lowered to 9.0 psi RVP. Because of the lack of federal action, a backup plan was presented to the Commission at its workshop of January 19, 1989. The regulation proposed would restrict the allowable RVP of gasoline sold in the summer months, to a 10.5 psi.

Oregon's dilemma with the suspension of EPA's NPRM proposal is shared by many states. As a result, proposals similar to EPA's NPRM are being considered and adopted elsewhere. For example, a consortium of northeast states have adopted a 9.0 psi RVP standard effective this summer.

Gasoline Sold in Oregon

Summer gasoline sold in the Portland area during the ozone season, averages about 11.5 psi RVP. A reduction to 10.5 psi RVP represents a VOC reduction of approximately 5,000 kilograms per average summer workday, or a 4% reduction in overall VOC emissions. That means from May 15 through September 15 a 600 ton reduction of VOC, based upon last years gasoline sales, could be achieved. Approximately 44,000,000 gallons per month of gasoline are sold within the three Oregon counties of the Portland metro area during the ozone season. Statewide, about 120,000,000 gallons per month of gasoline are sold.

Effect of Implementing a Gasoline Volatility Standard

What can be done to reduce gasoline volatility, how can it be done, and what is the cost? The volatility of gasoline is established at the refinery during the blending process. Volatility is varied for seasonal climatic changes to meet the differing needs. ASTM D 439-86, copy attached, is an industry standard specification for automotive gasoline. It shows many of the different tests that define the different gasoline properties. The volatility of gasoline can be reduced by changing the formula of the different hydrocarbon compounds. Over the past years, the butane content of gasoline has increased. This is due, in part, to the changing nature of the chemicals market, differences in crude oil supplies, and the availability of different hydrocarbon compounds resulting from increased reforming to obtain better antiknock compounds to make up for the reduction of lead in gasoline. Butane also has good antiknock properties, and its use helps boost the overall antiknock index rating. The antiknock index is a rating method to determine the fuel's ability to resist engine knock or ping. This contributes to a product that meets motorists' driveability needs.

Butane, however, is a very light hydrocarbon, and tends to evaporate easily. On warm summer days, this property of butane contributes to increased evaporative losses from motor vehicles gasoline tanks, both when in storage and when the vehicles are operating. These vapors are also emitted into the atmosphere when the vehicles are fueled.

Simplistically, gasoline volatility can be reduced by removing or decreasing the butane content. Based upon technical papers and industry sources, the national costs estimates indicate about a \$0.006-\$0.008 per gallon increase in the price of gasoline at the pump. Thus, the total pass through cost to the customer is about one cent per gallon. That cost represents an overall cost, on a statewide basis, of \$2-3 million per ozone season. Some industry sources indicate that refining costs in the Pacific Northwest may be higher, and the actual cost may be double this estimate, for an overall cost range of between 1-2¢ per gallon. The Fiscal and Economic Impacts Statement is included as Attachment B of the main report.

Effect of Marketing and Distribution of Gasoline

If a gasoline volatility standard is implemented, the action may affect the marketing of gasoline throughout the Pacific Northwest; not just in western Oregon. Because of the way gasoline is distributed in this region, EQC action mandating a reduced RVP limit may effectively require a lower volatility gasoline throughout both western Oregon and Washington. It would be anticipated that cost increases would be seen throughout the region.

Areas of Controversy

The biggest areas of controversy surrounding this proposal is timing, and price. To most motorists the timing is of no consequence, since it is assumed that gasoline will continue to be a readily available product. However, to the petroleum refiners, the timing is crucial. Adequate lead time is necessary to provide for the orderly transition to a new summer specification gasoline. If the price exceeds the staff estimates by too high a figure, than motorists may object to the cost at the pump.

From a technical perspective lowering fuel volatility of gasoline can effect fuel antiknock index and overall driveability. The gasoline blend is influenced by the source of the crude oil and other market demands for various hydrocarbon compounds. As indicated earlier, the increase in volatility of gasoline is primarily attributed to the increased butane content. Butane is inexpensive and it also has good antiknock properties. When butane is removed, the antiknock index will need to be balanced either by increasing the aromatic or olefin content, or by the addition of octane enhancers, such as methyl tertiary butyl ether (MTBE).

From an environmental prospective, a significant increase in the use of aromatic or olefin content poses other problems (this may well be offset by the reduced volatility of the final product). The current market conditions

for aromatics is also "tight", and it is the gasoline reformulation that will cause an increase in price. At the same time this proposal will be under study, the Northeast states are implementing RVP control. While the level of RVP control proposed in this proposal is not as severe (10.5 psi vs. 9.0 psi), the way gasoline will change is similar on both coasts. Reducing RVP will leave a drop in available antiknock capability. This antiknock capability will be augmented either by the increased use of aromatic or the addition of oxygenates, such as MTBE.

Thus the costs to replace the antiknock capability of gasoline, may be underestimated, and exceed 1¢/gal. Staff has been working to maintain open communications with the industry. It is believed that the petroleum industry will soon be able to provide a better estimate of their ability and the actual cost impact of this proposal.

Volatility Rule and Enforcement

Presented in Attachment A of the main report, is a draft rule for Commission consideration. This rule would establish a maximum limit on fuel volatility for gasoline sold, a sampling and reporting procedure, and a schedule of penalties. The rule is patterned after California's gasoline volatility regulations.

The following enforcement scheme is proposed. The manufacturer or refiner shall sample and report to the Department on a monthly basis the average Reid vapor pressure that will be sold and distributed in western Oregon. The test method will be ASTM Method D 323.

Monthly reports of vapor pressure findings would be mailed to the Department in a timely manner to insure discrepancies are quickly resolved. If the refiner records show excessive vapor pressure, penalties will be imposed consistent with the Department's enforcement authority.

The Department would reserves the right to audit the refinery distribution terminal and related distributors to insure the accuracy of the reports. This authority would include the right to spot check retail gasoline distribution. Sampling will be performed according to the procedures of the State of California Air Resources Board Title 13 §2251 and standard ASTM Methods.

Implementation of the above sampling and reporting requirements will be June 15, 1989.

Agenda Item _____
March 3, 1989, EQC Meeting
Page 5

Hearings

Two hearings have been tentatively scheduled. Both hearings would be in the Portland area, with one in the morning and the other in the evening hours. Because of the potentially controversial nature of the proposal, both hearings need to be conducted before the Commission's Hearings Officer, rather than the technical staff.

AMERICAN SOCIETY FOR TESTING AND MATERIALS
1916 Race St., Philadelphia, Pa. 19103

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If not listed in the current combined index, will appear in the next edition.

Standard Specification for AUTOMOTIVE GASOLINE¹

This standard is issued under the fixed designation D 439; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This specification has been approved for use by agencies of the Department of Defense and for listing in the DoD Index of Specifications and Standards.

1. Scope

1.1 This specification guides in establishing the requirements of gasoline for ground vehicles equipped with spark-ignition engines.

1.2 This specification describes various characteristics of gasolines for use over a wide range of operating conditions. It neither necessarily includes all types of gasolines that are satisfactory for automotive vehicles, nor necessarily excludes gasolines that may perform unsatisfactorily under certain operating conditions or in certain equipment.

1.3 Gasoline is not the only fuel used in ground vehicles equipped with spark-ignition engines. Blends of gasoline with oxygenates such as alcohols and ethers are common in the marketplace. However, some of the test methods referred to in this specification are not applicable to such blends. A specification that encompasses all fuels for automotive spark-ignition engines is under development. It appears as D-2 Proposal P 176, Proposed Specification for Automotive Spark-Ignition Engine Fuel in the "gray" pages of this volume. Refer to D-2 Proposal P 176 for information and for requirements and test methods applicable to gasoline-oxygenate blends.

1.4 The values stated in SI units are the standard. The values in parentheses are for information only.

2. Referenced Documents

2.1 ASTM Standards:

- D 86 Method for Distillation of Petroleum Products²
- D 130 Method for Detection of Copper Corrosion from Petroleum Products by the Copper Strip Tarnish Test³
- D 323 Test Method for Vapor Pressure of Petroleum Products (Reid Method)²

- D 381 Test Method for Existent Gum in Fuels by Jet Evaporation²
- D 525 Test Method for Oxidation Stability of Gasoline (Induction Period Method)²
- D 1266 Test Method for Sulfur in Petroleum Products (Lamp Method)²
- D 2533 Test Method for Vapor-Liquid Ratio of Gasoline³
- D 2547 Test Method for Lead in Gasoline, Volumetric Chromate Method³
- D 2551 Test Method for Vapor Pressure of Petroleum Products (Micromethod)³
- D 2599 Test Method for Lead in Gasoline by X-Ray Spectrometry³
- D 2622 Test Method for Sulfur in Petroleum Products (X-Ray Spectrographic Method)³
- D 2699 Test Method for Knock Characteristics of Motor Fuels by the Research Method⁴
- D 2700 Test Method for Knock Characteristics of Motor and Aviation Fuels by the Motor Method⁴
- D 2885 Test Method for Research and Motor Method Octane Ratings Using On-Line Analyzers⁴
- D 3116 Test Method for Trace Amounts of Lead in Gasoline⁵
- D 3120 Test Method for Trace Quantities of Sulfur in Light Liquid Petroleum Hydrocarbons by Oxidative Microcoulometry³
- D 3229 Test Method for Low Levels of Lead

¹ This specification is under the jurisdiction of ASTM Committee D-2 on Petroleum Products and Lubricants and is the direct responsibility of Subcommittee D02.A on Gasoline.

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² Annual Book of ASTM Standards, Vol 05.01.

³ Annual Book of ASTM Standards, Vol 05.02.

⁴ Annual Book of ASTM Standards, Vol 05.04.

⁵ Annual Book of ASTM Standards, Vol 05.03.

- in Gasoline by X-Ray Spectrometry³
 D 3231 Test Method for Phosphorus in Gasoline³
 D 3237 Test Method for Lead in Gasoline by Atomic Absorption Spectrometry³
 D 3341 Test Method for Lead in Gasoline—iodine Monochloride Method³

3. Definitions

3.1 *gasoline*—a volatile mixture of liquid hydrocarbons, generally containing small amounts of additives, suitable for use as a fuel in spark-ignition internal combustion engines.

3.2 *oxygenate, n*—an oxygen-containing, ashless, organic compound, such as an alcohol or ether, which may be used as a fuel or fuel supplement.

3.3 *gasoline-oxygenate blend*—a blend consisting primarily of gasoline and a substantial amount of one or more oxygenates.

NOTE 1—Because a standard test method does not exist that can quantitatively determine small amounts of oxygenates or combined oxygen in fuel, it is not possible at this time to set a maximum limit for oxygenate or oxygen content for gasoline. The intent of the above definitions is to indicate that a spark-ignition engine fuel is a gasoline-oxygenate blend when sufficient oxygenate is present to interfere with the determination of properties using current standard test methods. It is not the intent of the definitions to classify as a gasoline-oxygenate blend a gasoline containing: (1) alcohol used as a diluent for detergent or corrosion inhibitor additives and (2) small amounts of alcohols or glycols used as anti-icing additives. When new test methods and technical data to support a limit are available, an oxygenate or oxygen content maximum limit for gasoline will be considered.

4. General

4.1 This specification provides for an automatic variation of the volatility and antiknock index of gasoline in accordance with seasonal climatic changes at the locality where the gasoline is used.

4.2 This specification represents a description of gasolines as of the date of publication. The specification is under continuous review, which may result in revisions based on changes in gasoline or automotive requirements, or both. All users of this specification, therefore, should refer to the latest edition.

NOTE 2—If there is any doubt as to the latest edition of Specification D 439, contact ASTM Headquarters.

5. Performance Requirements

5.1 Volatility is varied for seasonal climatic

changes by providing for five volatility classes of gasoline, which conform to the requirements prescribed in Table 1.

5.1.1 The seasonal and geographical distribution of the five classes is shown in Table 2.

5.2 Antiknock index levels, defined as the average of the Research octane number (RON) and Motor octane number (MON), and their applications are set forth in Table 3.

5.2.1 Vehicle octane requirements generally vary with atmospheric temperature and humidity. Recommended maximum adjustments in antiknock index for seasonal climatic changes are provided in Fig. 1.

5.2.2 Vehicle octane requirements generally decrease with increasing altitude. The maximum antiknock index adjustments, established to protect cars driven from a high to a lower altitude area while using fuel obtained in the high altitude area, are provided in Fig. 2.

5.3 Additional requirements are listed in Table 1.

6. Workmanship

6.1 The finished gasoline must be visually free of undissolved water, sediment, and suspended matter; it must be clear and bright at the ambient temperature or 21°C (70°F), whichever is higher.

7. Ordering Information

7.1 The purchasing agency shall:

7.1.1 State the antiknock index as agreed upon with the seller,

7.1.2 Indicate the season and locality in which the gasoline will be used,

7.1.3 Indicate the lead level required (Table 1).

8. Test Methods

8.1 The requirements enumerated in this specification are determined in accordance with the following methods:

8.1.1 *Distillation*—Method D 86.

8.1.2 *Vapor-Liquid Ratio*—Test Method D 2533.

8.1.3 *Vapor Pressure*—Test Method D 323 or Test Method D 2551.

8.1.4 *Research Method Octane Number*—Test Method D 2699 or Test Method D 2885.

8.1.5 *Motor Method Octane Number*—Test Method D 2700 or Test Method D 2885.

8.1.6 *Corrosion*—Test Method D 130, three

hours at 50°C (122°F).

8.1.7 *Existent Gum*—Test Method D 381.

8.1.8 *Sulfur*—Test Method D 1266, Test Method D 2622, or Test Method D 3120. With Test Method D 3120, fuels with sulfur content greater than 100 ppm (0.0100 mass %) must be diluted with *isooctane*. The dilution of the sample may result in a loss of precision. Test Method D 3120 cannot be used when the lead concentration is greater than 0.4 g/L (1.4 g/gal).

8.1.9 *Lead*—Test Method D 2547, Test Method D 2599, or Test Method D 3341. For lead levels below 0.03 g/L (0.1 g/gal) use Test Method D 3116, Test Method D 3229 or Test Method D 3237.

8.1.10 *Oxidation; Stability*—Test Method D 525.

9. Precision and Bias

9.1 The precision of each required test method is included in the standard applicable to each method.

9.2 *Antiknock Index*:

9.2.1 The following statements apply to antiknock index, which is a composite quantity not addressed in any other standard.

9.2.2 The precision of the antiknock index $(RON + MON)/2$ is a function of the individual precisions of Research (D 2699) and Motor (D 2700) octane numbers. The repeatability and reproducibility variances for these test methods must be summed in proportion to their individual contributions to the antiknock index.

9.2.3 *Repeatability*—The difference between two sets of antiknock index determinations,

where two test results by each octane number method were obtained by one operator, with the same apparatus under constant operating conditions on identical test material would, in the long run, and in the normal and correct operation of the test methods, exceed the values in the following table in only one case in twenty.

9.2.4 *Reproducibility*—The difference between two independent sets of antiknock index determinations, obtained by different operators working in different laboratories on identical test material would, in the long run, and in the normal and correct operation of the test methods, exceed the values in the following table in only one case in twenty.

| Antiknock Index | Repeatability Limits, Antiknock Index Units | Reproducibility Limits, Antiknock Index Units |
|-----------------|---|---|
| 83 | 0.2 | 0.7 |
| 85 | 0.2 | 0.7 |
| 87 | 0.2 | 0.7 |
| 89 | 0.2 | 0.6 |
| 91 | 0.2 | 0.6 |
| 93 | 0.2 | 0.6 |
| 95 | — | 0.6 |
| 97 | — | 0.7 |

NOTE 2—These precision limits were calculated from Research and Motor octane number results obtained by member laboratories of the ASTM National Exchange Group (NEG) participating in a cooperative testing program. The data obtained during the period 1980 through 1982 have been analyzed in accordance with RR:D02-1007, "Manual on Determining Precision Data for ASTM Methods on Petroleum Products and Lubricants," Spring, 1973.

9.2.5 *Bias*—There being no criteria for measuring bias in these test-product combinations, no statement of bias can be made.

TABLE 1 Detailed Requirements for Gasoline

| Volatility Class | Distillation Temperatures, °C (°F), at Percent Evaporated ^a | | | | | Distillation Residue, Vol %, max | Vapor/Liquid Ratio (V/L) ^b | |
|------------------|--|----------|-----------|---------------|----------------|----------------------------------|---------------------------------------|---------|
| | 10 Vol %, max | 50 Vol % | | 90 Vol %, max | End Point, max | | Test Temperature, °C (°F) | V/L max |
| | | min | max | | | | | |
| A | 70 (158) | 77 (170) | 121 (250) | 190 (374) | 225 (437) | 2 | 60 (140) | 20 |
| B | 65 (149) | 77 (170) | 118 (245) | 190 (374) | 225 (437) | 2 | 56 (133) | 20 |
| C | 60 (140) | 77 (170) | 116 (240) | 185 (365) | 225 (437) | 2 | 51 (124) | 20 |
| D | 55 (131) | 77 (170) | 113 (235) | 185 (365) | 225 (437) | 2 | 47 (116) | 20 |
| E | 50 (122) | 77 (170) | 110 (230) | 185 (365) | 225 (437) | 2 | 41 (105) | 20 |

| Volatility Class | Reid Vapor Pressure, max, kPa (psi) | Lead Content, max, g/L (g/gal) | | Copper Strip Corrosion, max | Existent Gum, max, mg/100 mL | Sulfur, max, Mass % | | Oxidation Stability, Minimum, Minutes | Anti-knock Index |
|------------------|-------------------------------------|--------------------------------|---------------------|-----------------------------|------------------------------|---------------------|--------|---------------------------------------|------------------|
| | | Unleaded ^d | Leaded ^c | | | Unleaded | Leaded | | |
| A | 62 (9.0) | 0.013 (0.05) | 1.1 (4.2) | No. 1 | 5 | 0.10 | 0.15 | 240 | 0 |
| B | 69 (10.0) | 0.013 (0.05) | 1.1 (4.2) | No. 1 | 5 | 0.10 | 0.15 | 240 | 0 |
| C | 79 (11.5) | 0.013 (0.05) | 1.1 (4.2) | No. 1 | 5 | 0.10 | 0.15 | 240 | 0 |
| D | 93 (13.5) | 0.013 (0.05) | 1.1 (4.2) | No. 1 | 5 | 0.10 | 0.15 | 240 | 0 |
| E | 103 (15.0) | 0.013 (0.05) | 1.1 (4.2) | No. 1 | 5 | 0.10 | 0.15 | 240 | 0 |

^a At 101.3 kPa pressure (760 mm Hg).

^b The intentional addition of lead or phosphorus compounds is not permitted. U.S. Environmental Protection Agency (EPA) regulations limit their maximum concentrations to 0.05 g of lead per gallon and 0.005 g of phosphorus per gallon (by Test Method D 3231), respectively.

^c EPA regulations limit the lead concentration in leaded gasoline to no more than 0.1 g/gal (0.026 g/L), averaged for quarterly production of leaded gasoline.

^d See Table 3.

TABLE 2 Schedule of Seasonal and Geographical Volatility Classes

This schedule, subject to agreement between purchaser and seller, denotes the volatility properties of the gasoline at the time and place of shipment. Shipments intended for future use may anticipate this schedule. Where alternative classes are permitted, either class is acceptable; the option shall be exercised by the seller.

| State | Jan | Feb | March | April | May | June | July | Aug | Sept | Oct | Nov | Dec |
|----------------------|-----|-----|-------|-------|-----|------|------|-----|------|-----|-----|-----|
| Alabama | D | D | D/C | C | C | C | C/B | B | B/C | C | C/D | D |
| Alaska | E | E | E | E | E/D | D | D | D | D/E | E | E | E |
| Arizona | D | D/C | C/B | B | B/A | A | A | A | A | A/B | B/C | C/D |
| Arkansas | E/D | D | D/C | C | C | C/B | B | B | B/C | C/D | D | D/E |
| *California | | | | | | | | | | | | |
| North Coast | E/D | D | D | D/C | C | C/B | B | B | B | B/C | C/D | D/E |
| South Coast | D | D | D/C | C | C/B | B | B | B | B | B/C | C/D | D |
| Southeast | D | D/C | C/B | B | B/A | A | A | A | A | A/B | B/C | C/D |
| Interior | E/D | D | D | D/C | C/B | B | B | B | B | B/C | C/D | D/E |
| Colorado | E | E/D | D/C | C | C/B | B | B/A | A/B | B | B/C | C/D | D/E |
| Connecticut | E | E | E/D | D | D/C | C | C | C | C/D | D | D/E | E |
| Delaware | E | E | E/D | D | D/C | C | C | C | C | C/D | D/E | E |
| District of Columbia | E | E/D | D | D/C | C | C | C | C | C | C/D | D/E | E |
| Florida | D | D | D/C | C | C | C | C | C | C | C | C/D | D |
| Georgia | D | D | D/C | C | C | C | C/B | B | B/C | C | C/D | D |
| Hawaii | C | C | C | C | C | C | C | C | C | C | C | C |
| Idaho | E | E/D | D | D/C | C/B | B | B | B | B | B/C | C/D | D/E |
| Illinois | | | | | | | | | | | | |
| N 40° Latitude | E | E | E/D | D | D/C | C | C | C | C | C/D | D/E | E |
| S 40° Latitude | E | E | E/D | D/C | C | C | C/B | B/C | C | C/D | D | D/E |
| Indiana | E | E | E/D | D | D/C | C | C | C | C | C/D | D/E | E |
| Iowa | E | E | E/D | D/C | C | C/B | B/C | C | C | C/D | D/E | E |
| Kansas | E | E/D | D/C | C | C/B | B | B | B | B | B/C | C/D | D/E |
| Kentucky | E | E/D | D | D/C | C | C | C | C | C | C/D | D/E | E |
| Louisiana | D | D | D/C | C | C | C | C/B | B | B/C | C | C/D | D |
| Maine | E | E | E/D | D | D/C | C | C | C | C/D | D | D/E | E |
| Maryland | E | E | E/D | D | D/C | C | C | C | C | C/D | D/E | E |
| Massachusetts | E | E | E/D | D | D/C | C | C | C | C/D | D | D/E | E |
| Michigan | E | E | E/D | D | D/C | C | C | C | C/D | D | D/E | E |
| Minnesota | E | E | E/D | D | D/C | C | C | C | C | C/D | D/E | E |
| Mississippi | D | D | D/C | C | C | C | C/B | B | B/C | C | C/D | D |
| Missouri | E | E/D | D | D/C | C | C/B | B | B | B/C | C/D | D | D/E |
| Montana | E | E | E/D | D/C | C/B | B | B | B | B/C | C/D | D/E | E |
| Nebraska | E | E | E/D | D/C | C/B | B | B | B | B | B/C | C/D | D/E |
| Nevada | | | | | | | | | | | | |
| N 38° Latitude | E | E/D | D | D/C | C/B | B | B | B | B | B/C | C/D | D/E |
| S 38° Latitude | D | D/C | C/B | B | B/A | A | A | A | A | A/B | B/C | C/D |
| New Hampshire | E | E | E/D | D | D/C | C | C | C | C/D | D | D/E | E |
| New Jersey | E | E | E/D | D | D/C | C | C | C | C/D | D | D/E | E |
| New Mexico | | | | | | | | | | | | |
| N 34° Latitude | E/D | D | D/C | C/B | B/A | A | A | A/B | B | B/C | C/D | D |
| S 34° Latitude | D | D/C | C/B | B | B/A | A | A | A | A/B | B/C | C/D | D |
| New York | E | E | E/D | D | D/C | C | C | C | C/D | D | D/E | E |
| North Carolina | E/D | D | D | D/C | C | C | C/B | B | B/C | C/D | D | D/E |
| North Dakota | E | E | E/D | D | D/C | C/B | B | B | B/C | C/D | D/E | E |
| Ohio | E | E | E/D | D | D/C | C | C | C | C | C/D | D/E | E |
| Oklahoma | E/D | D | D/C | C | C/B | B | B | B | B | B/C | C/D | D/E |
| Oregon | | | | | | | | | | | | |
| E 122° Longitude | E | E/D | D | D | D/C | C/B | B | B | B/C | C/D | D | D/E |
| W 122° Longitude | E | E/D | D | D | D/C | C | C | C | C | C/D | D/E | E |
| Pennsylvania | E | E | E/D | D | D/C | C | C | C | C/D | D | D/E | E |
| Rhode Island | E | E | E/D | D | D/C | C | C | C | C/D | D | D/E | E |
| South Carolina | D | D | D | D/C | C | C | C/B | B | B/C | C/D | D | D |
| South Dakota | E | E | E/D | D/C | C/B | B | B | B | B | B/C | C/D | D/E |
| Tennessee | E/D | D | D | D/C | C | C | C/B | B | B/C | C/D | D | D/E |
| Texas | | | | | | | | | | | | |
| E 99° Longitude | D | D | D/C | C | C | C/B | B | B | B | B/C | C/D | D |
| W 99° Longitude | D | D/C | C/B | B | B/A | A | A | A | A/B | B/C | C/D | D |
| Utah | E | E/D | D | D/C | C/B | B | B/A | A/B | B | B/C | C/D | D/E |
| Vermont | E | E | E/D | D | D/C | C | C | C | C/D | D | D/E | E |
| Virginia | E | E/D | D | D/C | C | C | C | C | C | C/D | D/E | E |

TABLE 2 Continued

| State | Jan | Feb | March | April | May | June | July | Aug | Sept | Oct | Nov | Dec |
|------------------|-----|-----|-------|-------|-----|------|------|-----|------|-----|-----|-----|
| Washington | | | | | | | | | | | | |
| E 122° Longitude | E | E | E/D | D | D/C | C/B | B | B | B/C | C/D | D/E | E |
| W 122° Longitude | E | E | E/D | D | D/C | C | C | C | C | C/D | D/E | E |
| West Virginia | E | E | E/D | D | D/C | C | C | C | C | C/D | D/E | E |
| Wisconsin | E | E | E/D | D | D/C | C | C | C | C | C/D | D/E | E |
| Wyoming | E | E | E/D | D/C | C/B | B | B | B | B | B/C | C/D | D/E |

⁴ Details of State Climatological Division by county as indicated.

California, North Coast—Alameda, Contra Costa, Del Norte, Humboldt, Lake, Marin, Mendocino, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Trinity

California, Interior—Lassen, Modoc, Plumas, Sierra, Siskiyou, Alpine, Amador, Butte, Calaveras, Colusa, El Dorado, Fresno, Glenn, Kern (except that portion lying east of the Los Angeles County Aqueduct), Kings, Madera, Mariposa, Merced, Placer, Sacramento, San Joaquin, Shasta, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba, Nevada

California, South Coast—Orange, San Diego, San Luis Obispo, Santa Barbara, Ventura, Los Angeles (except that portion north of the San Gabriel Mountain range and east of the Los Angeles County Aqueduct)

California, Southeast—Imperial, Riverside, San Bernardino, Los Angeles (that portion north of the San Gabriel Mountain range and east of the Los Angeles County Aqueduct), Mono, Inyo, Kern (that portion lying east of the Los Angeles County Aqueduct)

TABLE 3 Gasoline Antiknock Indexes and Their Application

| Leaded Gasoline (for vehicles that can or must use leaded gasoline) | |
|---|--|
| Antiknock Index (RON + MON)/2, min ^{4,5} | Application |
| 87 | Meets antiknock requirements of most 1971 and later model vehicles that can use leaded gasoline and of pre-1971 vehicles with low antiknock requirements. |
| 88 | Meets antiknock requirements of most 1970 and prior model vehicles that were designed to operate on leaded gasoline, and of 1971 and later model vehicles that can use leaded gasoline and have high antiknock requirements. |
| 89 | Meets antiknock requirements of medium and heavy duty trucks that require higher octane leaded gasoline. |
| 92 | Suitable for most vehicles with very high antiknock requirements that can use leaded gasoline. |
| Unleaded Gasoline (for vehicles that can or must use unleaded gasoline) | |
| Antiknock Index (RON + MON)/2, min ^{4,5} | Application |
| 85 | For vehicles with low antiknock requirements. |
| 87 ^c | Meets antiknock requirements of most 1971 and later model vehicles. |
| 90 | For most 1971 and later model vehicles with high antiknock requirements. |

⁴ Reductions for seasonal variations are allowed in accordance with Fig. 1.

⁵ Reductions for altitude are allowed in accordance with Fig. 2.

^c In addition, Motor octane number must not be less than 82.0.

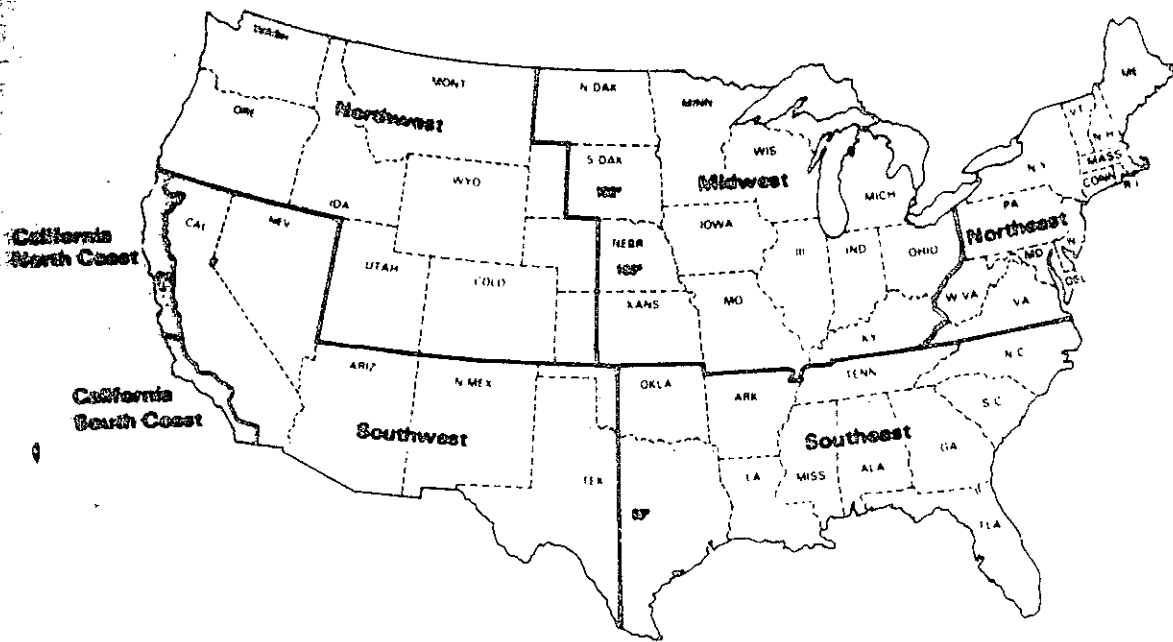


FIG. 1 Antiknock Index Reductions for Weather¹

| | J | F | M | A | M | J | J | A | S | O | N | D |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Northeast | 1.0 | 0.5 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0.5 | 1.0 |
| Southeast | 0.5 | 0 | 0 | 0 | 0 | 0.5 | 0.5 | 0.5 | 0.5 | 0 | 0 | 0.5 |
| Midwest | 1.0 | 0.5 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 1.0 |
| Northwest | 1.0 | 1.0 | 0.5 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0.5 | 1.0 | 1.0 |
| Southwest | 1.0 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 1.0 |
| California | | | | | | | | | | | | |
| No. Coast ² | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0 | 0 | 0.5 | 0.5 |
| So. Coast ² | 0 | 0 | 0.5 | 0.5 | 1.0 | 1.0 | 1.0 | 0.5 | 0.5 | 0 | 0 | 0 |
| Alaska | 1.0 | 1.0 | 0.5 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0.5 | 1.0 | 1.0 |
| Hawaii | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

¹ Reductions also apply to Motor octane number requirement for unleaded gasolines with an antiknock index of 87 to 89.9.
² Details of California coastal areas are shown in Footnote A of Table 2.

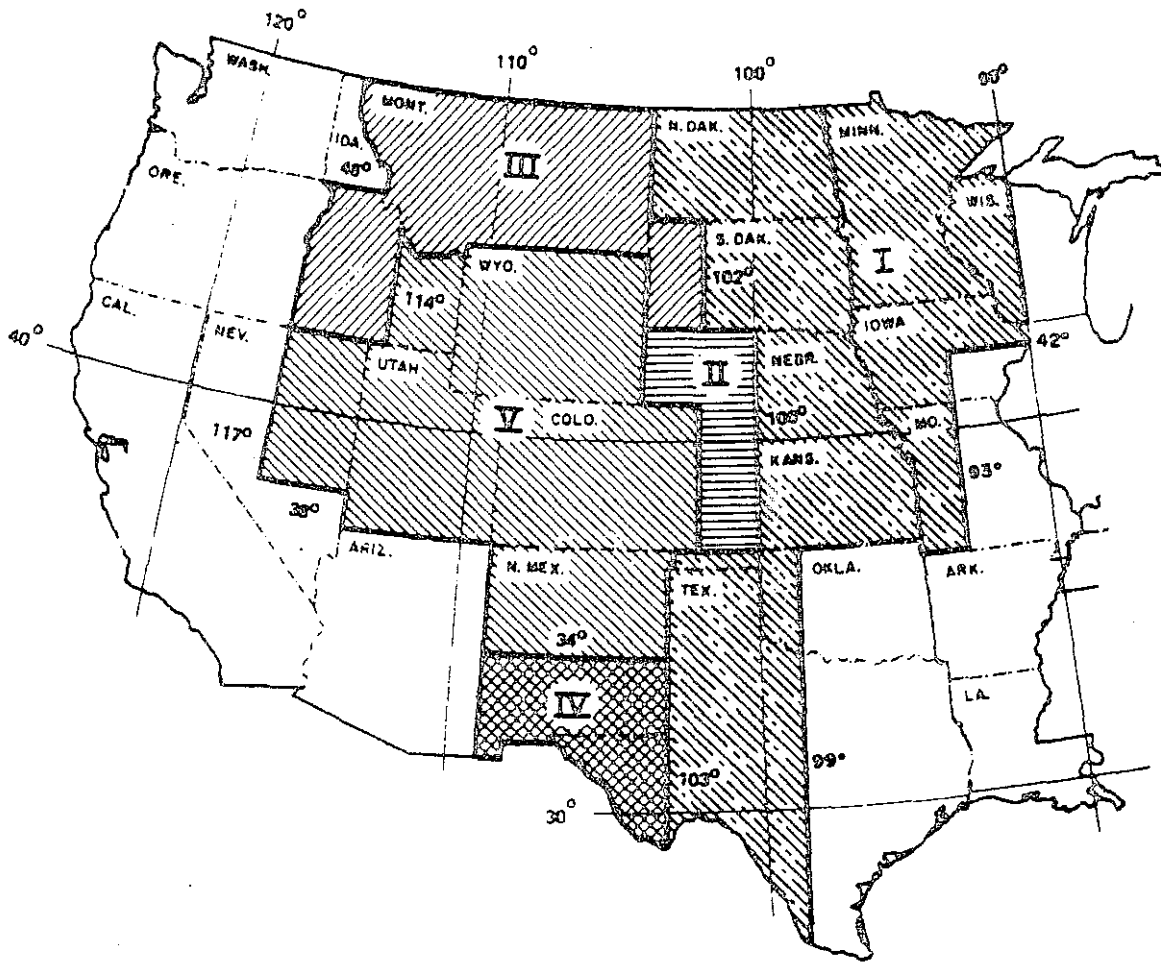


FIG. 2 Antiknock Index Reductions for Altitude

Antiknock Index Reductions by Altitude Area

| Area | Less than 89 ⁴ | 89 or Greater |
|------|---------------------------|---------------|
| I | 0.7 | 0.5 |
| II | 1.5 | 1.5 |
| III | 2.2 | 1.5 |
| IV | 3.0 | 2.0 |
| V | 4.5 | 3.0 |

⁴ Reductions also apply to Motor octane number requirement for unleaded gasoline with an antiknock index of 87 to 88.9.

APPENDIXES

(Nonmandatory Information)

XI. SIGNIFICANCE OF ASTM SPECIFICATION FOR AUTOMOTIVE GASOLINE

XI.1 General

XI.1.1 Antiknock rating and volatility define the general characteristics of gasoline. Other characteristics relate to limiting the concentration of undesirable components so that they will not adversely affect engine performance; and ensuring the stability of gasoline as well as its compatibility with materials used in engines and their fuel systems.

XI.1.2 Gasoline is a complex mixture composed of relatively volatile hydrocarbons that vary widely in their physical and chemical properties. Gasoline is exposed to a wide variety of mechanical, physical, and chemical environments. Thus, the properties of gasoline must be balanced to give satisfactory engine performance over an extremely wide range of operating conditions. The prevailing standards for gasoline represent compromises among the numerous quality and performance requirements. This ASTM specification is established on the basis of the broad experience and close cooperation of producers of gasoline, manufacturers of automotive equipment, and users of both.

XI.2 Antiknock Rating

XI.2.1 The fuel-air mixture in the cylinder of a spark-ignition engine will, under certain conditions, autoignite in localized areas ahead of the flame front that is progressing from the spark. This may cause an audible "ping" or knock. The antiknock rating of a gasoline is a measure of its resistance to knock, and depends on engine design and operation, as well as atmospheric conditions. Gasoline with an antiknock rating higher than that required for knock-free operation does not improve performance. However, vehicles equipped with knock limiters may show a performance improvement as the antiknock rating of the gasoline used is increased. Conversely, a decrease in antiknock rating may cause vehicle performance loss. The loss of power and the damage to an automotive engine due to knocking are generally not significant until the knock intensity becomes very severe. Heavy and prolonged knocking may cause power loss and damage to the engine.

XI.3 Octane Number

XI.3.1 The two recognized laboratory engine test methods for determining the antiknock rating of gasolines are the Research method and the Motor method. The following paragraphs define the two methods and describe their significance as applied to various equipment and operating conditions.

XI.3.2 Research octane number is determined by a

method that measures gasoline antiknock level in a single-cylinder engine under mild operating conditions; namely, at a moderate inlet mixture temperature and a low engine speed. It indicates gasoline antiknock performance in engines at wide-open throttle and low-to-medium engine speeds.

XI.3.3 Motor octane number is determined by a method that measures gasoline antiknock level in a single-cylinder engine under more severe operating conditions than those employed in the Research method; namely, at a higher inlet mixture temperature and at a higher engine speed. It indicates gasoline antiknock performance in engines operating at wide-open throttle and high engine speeds. Also, it indicates gasoline antiknock performance under part-throttle road-load conditions.

XI.3.4 The most extensive data base that relates the laboratory engine test methods for Research and Motor octane to actual field performance of gasolines in vehicles is the annual Coordinating Research Council (CRC) Octane Number Requirement Survey conducted for new light duty vehicles. These data show that the antiknock performance of a gasoline in some vehicles may correlate best with Research octane number, while in others it may correlate best with Motor octane number. These correlations also differ from model year to model year or from vehicle population to vehicle population, reflecting the changes in engine designs over the years. To provide a single number as guidance to the consumer, the antiknock index, which is the average of the Research and Motor octane numbers, $(RON + MON)/2$, was developed. The antiknock index gives an approximate correlation of laboratory engine octane ratings of gasoline with CRC road octane ratings for many vehicles, but the user must be guided also by experience as to which gasoline is most appropriate for an individual vehicle. The antiknock index formula is reviewed continuously and may have to be adjusted in the future as engines and gasolines continue to evolve. The present $(RON + MON)/2$ formula is not an absolute measure of gasoline antiknock performance in general or in a specific vehicle.

XI.3.5 The octane requirement (the octane number of gasoline required for satisfactory vehicle operation with respect to knock) of vehicles decreases as altitude increases, primarily because of the reduction in mixture density caused by reduced atmospheric pressure. However, altitude does not affect octane requirements of all cars uniformly. Also, the effect can be smaller for vehicles equipped with barometric pressure sensors and other compensation devices than for vehicles not equipped with such devices. In general, the decrease in

octane requirement is larger for low octane requirement vehicles.

X1.3.5 (1) Tests by the CRC and other organizations have shown that the decrease in octane requirements with altitude is larger for 1971 and later model uncompensated cars, designed to use a gasoline with an antiknock index of 87, than for pre-1971 cars. The pre-1971 cars generally have high compression ratios and use gasolines with an antiknock index of 88 and higher. Gasolines with antiknock indexes below 89 are adjusted by a larger reduction factor than those with an antiknock index of 89 or greater.

X1.3.5 (2) Boundaries of the areas defined in Fig. 2 and the corresponding antiknock index reductions were established to protect cars driven from a high to a lower altitude (and hence higher octane requirement) area while using gasoline obtained in the high-altitude area.

X1.3.6 Vehicle octane requirements on the average rise with increasing atmospheric temperature by 0.097 MON per degree Celsius (0.054 MON per degree Fahrenheit), and decrease with increasing specific humidity by 0.245 MON per gram of water per kilogram of dry air (0.035 MON per grain of water per pound of dry air). Because temperature and humidity of geographical areas are predictable throughout the year from past weather records, octane levels of can be seasonally adjusted to match seasonal changes in vehicle octane requirements. Figure 1 defines the boundaries of areas and the seasonal variations recommended for antiknock index variations.

X1.4 Antiknock Additives

X1.4.1 In addition to selecting the appropriate antiknock index to meet vehicle antiknock needs, a choice must be made between leaded and unleaded gasoline. Vehicles that must use unleaded gasoline are required by Environmental Protection Agency (EPA) regulation to have permanent labels on the instrument panel and adjacent to the gasoline tank filler inlet reading "Unleaded Fuel Only." Most 1975 and later model passenger cars and light trucks are in this category. Most 1971-74 vehicles can use leaded or unleaded gasoline. Pre-1971 vehicles were designed for leaded gasoline; however, unleaded gasoline of suitable antiknock index may generally be used in these vehicles, except that leaded gasoline should be used periodically (after a few tankfuls of unleaded gasoline have been used). Leaded gasoline may be required in some vehicles, particularly trucks, in heavy duty service. Instructions on gasoline selection are normally provided in publications of vehicle manufacturers (for example, owners' manuals, service bulletins, etc.). Antiknock agents other than lead alkyls may be used to increase the antiknock index of gasolines, and their concentrations may also be limited due to either performance or legal requirements.

X1.5 Volatility

X1.5.1 In most spark-ignition internal combustion engines, the gasoline is metered in liquid form through the carburetor or fuel injector, and is mixed with air and partially vaporized before entering the cylinders of the engine. Consequently, volatility is an extremely important characteristic of motor gasoline.

X1.5.2 At high operating temperatures, gasolines

may boil in fuel pumps, lines, or carburetors. If too much vapor is formed, the fuel flow to the engine may be decreased, resulting in loss of power, rough engine operation, or engine stoppage. These conditions are known as "vapor lock." Conversely, gasolines that do not vaporize sufficiently may cause hard starting of cold engines and poor warm-up performance. These conditions can be minimized by proper selection of volatility requirements, but cannot always be avoided. For example, during spring and fall a gasoline of volatility suitable for satisfactory starting at low ambient temperatures may cause problems in some engines under higher ambient temperature operating conditions.

X1.5.3 Five volatility classes of gasoline are provided to satisfy vehicle performance requirements under different climatic conditions. The schedule for seasonal and geographical distribution indicates the appropriate volatility class or classes for each month in all areas of the United States, based on altitudes and on expected air temperatures. Volatility limits are established in terms of vapor-liquid ratio, vapor pressure, and distillation properties.

X1.5.4 For sea-level areas outside of the United States, the following ambient temperatures are for guidance in selecting the appropriate volatility class:

| Volatility Class | 10th Percentile | 90th Percentile |
|------------------|---|---|
| | 6-h Minimum Daily Temperatures, °C (°F) | Maximum Daily Temperatures, °C (°F) |
| A | >16 (60) | ≥43 (110) |
| B | >10 (50) | <43 (110) |
| C | >4 (40) | <36 (97) |
| D | >-7 (20) | <29 (85) |
| E | ≤-7 (20) | <21 (69) |

The 6-hour minimum temperature is the highest temperature of the six coldest consecutive hourly temperature readings of a 24-hour day. The 6-hour minimum temperature provides information on the cold-soak temperature experienced by a vehicle. The 10th percentile of this temperature statistic indicates a 10% expectation that the 6-hour minimum temperature will be below this value during a month. The 90th percentile maximum temperature is the highest temperature expected during 90% of the days, and provides information relative to peak vehicle operating temperatures during warm and hot weather. For areas above sea level, the 10th percentile 6-hour minimum temperature should be increased by 3.6°C/1 000 m (2°F/1 000 ft) of altitude, and the 90th percentile maximum should be increased by 4.4°C/1 000 m (2.4°F/1 000 ft) of altitude before comparing them to the sea level temperature. These corrections compensate for changes in fuel volatility caused by changes in barometric pressure due to altitude.

X1.6 Vapor Pressure

X1.6.1 The vapor pressure of gasoline must be sufficiently high to ensure ease of engine starting, but it must not be so high as to contribute to vapor lock.

X1.7 Vapor-Liquid Ratio

X1.7.1 Vapor-liquid (V/L) ratio is the ratio of the volume of vapor formed at atmospheric pressure to the volume of gasoline tested in Test Method D 2533. The

V/L ratio increases with temperature for any given gasoline.

X1.7.2 The temperature of the fuel system and the *V/L* ratio that can be tolerated without vapor lock vary from vehicle to vehicle and with operating conditions. The tendency of a gasoline to cause vapor lock, as evidenced by loss of power during full-throttle accelerations, is indicated by the gasoline temperature at *V/L* ratios of approximately 20. The temperature at which the maximum *V/L* ratio is specified for each gasoline volatility class is based on the ambient temperatures and the altitude associated with the use of the class.

X1.8 Vapor-Liquid Ratio (Estimated)⁴

X1.8.1 Three techniques for estimating temperature-*V/L* values using Reid vapor pressure (Test Method D 323 or D 2551) and distillation (Method D 86) results are given in Appendix X2.

X1.9 Distillation

X1.9.1 Method D 86 for distillation provides another measure of the volatility of gasoline. Table 1 designates the limits for end-point temperature and the temperatures at which 10 %, 50 %, and 90 % by volume of the gasoline is evaporated. These distillation characteristics, along with vapor pressure and *V/L* ratio characteristics, affect the following vehicle performance characteristics: starting, driveability, vapor lock, dilution of the engine oil, fuel economy and carburetor icing.

X1.9.2 The 10% evaporated temperature of gasoline should be low enough to ensure starting under normal temperatures.

X1.9.3 Gasolines having the same 10 % and 90 % evaporated temperatures may vary considerably in driveability performance because of differences in the

boiling temperatures of the intermediate components or fractions. Driveability and idling quality are affected by the 50 % evaporated temperature. The 90 % evaporated and end-point temperatures should be low enough to minimize dilution of the engine oil.

X1.10 Corrosion

X1.10.1 Gasolines must pass the copper strip corrosion test to minimize corrosion of copper parts in fuel systems. Some gasolines corrode other fuel system metals, but there are no ASTM test methods to evaluate corrosion of these metals.

X1.11 Existent Gum

X1.11.1 The test for existent gum measures the amount of residue after evaporation of the gasoline and after a heptane wash. The heptane wash removes the heptane-soluble material such as additives and nonvolatile oils, which may have been added to gasoline. Excess existent gum may cause harmful carburetor, engine intake manifold and intake valve deposits.

X1.12 Sulfur

X1.12.1 The limit on sulfur content is included to protect against engine wear, deterioration of engine oil, and corrosion of exhaust system parts.

X1.13 Oxidation Stability

X1.13.1 The induction period as measured in the oxidation stability test is used as an indication of the resistance of gasoline to gum formation in storage. Experience indicates that gasolines with an induction period equal to or greater than that in Table 1 generally have acceptable short-term storage stability. However, correlation of the induction period with the formation of gum in storage may vary markedly under different storage conditions and with different gasolines.

X2. ESTIMATING TEMPERATURE-*V/L* VALUES FOR GASOLINE

X2.1 Scope

X2.1.1 Three techniques are presented here for estimating temperature-*V/L* data on gasolines from Reid vapor pressure and distillation test results.⁵ They are provided for use as a guide line when *V/L* data measured by Test Method D 2533 are not available. One method is designed for computer processing, one is a simpler linear technique, while the other is a nomogram form of this linear equation.

X2.1.2 These techniques are not optional procedures for measuring *V/L*. They are supplementary tools for estimating temperature-*V/L* relationships with reasonable accuracy when used with due regard for their limitations.

X2.1.3 Test Method D 2533 is the referee *V/L* procedure and shall be used when calculated values are questionable.

X2.1.4 These techniques are not intended for, nor are they necessarily applicable to, fuels of extreme distillation or chemical characteristics such as would be outside the range of normal commercial motor gasolines. Thus, they are not applicable in all instances to gasoline blending stocks or specially blended fuels.

X2.2 Computer Method

X2.2.1 *Summary*—The values of four intermediate functions, *A*, *B*, *C*, and *D*, are derived from the gasoline vapor pressure and distillation temperatures at 10, 20, and 50 % evaporated. Values for *A*, *B*, *C*, and *D* may be obtained either from equations or from a set of charts. X2.2.2.1 through X2.2.2.3 provide *A*, *B*, *C*, and *D* values using SI units. X2.2.2.6 through X2.2.2.8 provide *A*, *B*, *C*, and *D* values using inch-pound units. Estimated temperatures at *V/L* ratios 4, 10, 20, 30, and 45 are then calculated from *A*, *B*, *C*, and *D*. Estimated temperatures at intermediate *V/L* ratios may be ob-

⁵ A correlation of temperature-*V/L* ratio data with vapor pressure and distillation data was developed in 1943 and restudied in 1963 by panels of the Coordinating Research Council, Inc. See "Correlation of Gasoline Vapor Forming Characteristics with Inspection Test Data," *CRC Report No. 159*, Jan 28, 1943 (or SAE Transaction, Vol 52, August 1944, pp. 364-367) and "Study of CRC Calculated Temperature-*V/L* Technique," *CRC Report No. 170*, February 1963. The CRC correlation was modified by a task group of Subcommittee A of Committee D-2 to adapt it for computer processing, as well as the linear equation and the nomogram.

tained by interpolation.

X2.2.2 Procedure:

X2.2.2 (1) Establish input data from Reid vapor pressure (Test Method D 323 or Test Method D 2551) and distillation (Method D 86) test results as follows:

E = distillation temperature, °C, at 10 % evaporated,

F = distillation temperature, °C, at 20 % evaporated,

G = distillation temperature, °C, at 50 % evaporated,

$H = G - E$, °C

P = Reid vapor pressure, kPa,

$Q = F - E$, °C and

$R = H/Q$, except that if H/Q is greater than 6.7, make $R = 6.7$.

X2.2.2 (2) If A , B , C , and D , are to be calculated, use the following equations:

$$A = 102.859 - 1.36599P + 0.009617P^2 - 0.000028281P^3 + 207.0097/P$$

$$B = 5.36868 + 0.910540Q - 0.040187Q^2 + 0.00057774Q^3 + 0.254183/Q$$

$$S = -0.00525449 - 0.3671362/(P - 9.65) - 0.812419(P - 9.65)^2 + 0.0009677R - 0.0000195828R^2 - 3.3502318R/P^2 + 1241.1531R/P^4 - 0.06630129R^2/P + 0.00627839R^3/P + 0.0969193R^2/P^2$$

$$C = 0.34205P + 0.55556/S$$

$$D = 0.62478 - 0.68964R + 0.132708R^2 - 0.0070417R^3 + 5.8485/R$$

X2.2.2 (3) If A , B , C , and D , are to be obtained from charts, read them from Figs. X2.1, X2.2, X2.3, and X2.4, respectively.

X2.2.2 (4) Calculate the estimated temperature (°C or °F) at V/L ratios 4, 10, 20, 30, and 45 from the following equations:

$$T_4 = A + B$$

$$T_{45} = F + 0.125H + C$$

$$T_{10} = T_4 + 0.146341(T_{45} - T_4) + D$$

$$T_{20} = T_4 + 0.390244(T_{45} - T_4) + 1.46519D$$

$$T_{30} = T_4 + 0.634146(T_{45} - T_4) + D$$

where:

T_4 , T_{10} , T_{20} , T_{30} and T_{45} are estimated temperatures at V/L ratios 4, 10, 20, 30, and 45.

X2.2.2 (5) If the temperature at an intermediate V/L ratio is to be estimated, either plot the values calculated in X2.2.2 (4) and read the desired value from a smooth curve through the points, or use the Lagrange interpolation formula as follows:

$$TX = T_4 \left(\frac{X-10}{4-10} \times \frac{X-30}{4-30} \times \frac{X-45}{4-45} \right) + T_{10} \left(\frac{X-4}{10-4} \times \frac{X-30}{10-30} \times \frac{X-45}{10-45} \right) + T_{30} \left(\frac{X-4}{30-4} \times \frac{X-10}{30-10} \times \frac{X-45}{30-45} \right) + T_{45} \left(\frac{X-4}{45-4} \times \frac{X-10}{45-10} \times \frac{X-30}{45-30} \right)$$

where:

X = the desired V/L ratio between 4 and 45, and

TX = the estimated temperature at V/L ratio X .

X2.2.2 (6) If inch-pound units are used, establish

input data from Reid vapor pressure (Test Methods D 323 or D 2551) and distillation (Test Method D 86) test results as follows:

E = distillation temperature, °F, at 10 % evaporated,

F = distillation temperature, °F, at 20 % evaporated,

G = distillation temperature, °F, at 50 % evaporated,

$H = G - E$, °F

P = Reid vapor pressure, psi,

$Q = F - E$, °F, and

$R = H/Q$, except that if H/Q is greater than 6.7, make $R = 6.7$.

X2.2.2 (7) If A , B , C , and D are to be calculated in inch-pound units, use the following equations:

$$A = 217.147 - 16.9527P + 0.822909P^2 - 0.0166849P^3 + 54.0436/P$$

$$B = -9.66363 + 0.910540Q - 0.0223260Q^2 + 0.000178314Q + 0.823553/Q$$

$$S = -0.00525449 - 0.0532486/(P - 1.4) - 0.0170900/(P - 1.4)^2 + 0.0009677R - 0.0000195828R^2 - 0.0704753R/P^2 + 0.549224R/P^4 - 0.00961619R^2/P + 0.000910603R^3/P + 0.00203879R^2/P^2$$

$$C = 4.245P + 1.0/S$$

$$D = 1.12460 - 1.24135R + 0.238875R^2 - 0.0126750R^3 + 10.5273/R$$

X2.2.2 (8) If A , B , C , and D are to be obtained from charts in inch-pound units, read them from Figs. X2.5, X2.6, X2.7, and X2.8 respectively.

X2.2.2 (9) Calculate the estimated temperatures, °F, at V/L ratios 4, 10, 20, 30, and 45 using the equations in X2.2.2 (4) and X2.2.2 (5).

X2.3 Linear Equation Method

X2.3.1 Summary—As given, these two equations provide only the temperatures (°C or °F) at which a V/L value of 20 exists. They make use of two points from the distillation curve, T_{10} and T_{50} (°C or °F), and the Reid vapor pressure (kPa or psi) of the gasoline with constant weighting factors being applied to each. Experience has shown that data obtained with these simple linear equations generally are in close agreement with those obtained by the computerized version given above. The limitations pointed out in X2.1.1 through X2.1.4 must be kept in mind when use is made of this procedure.

X2.3.2 Procedure—Obtain 10 % evaporated and 50 % evaporated points from the distillation curve (Method D 86) along with the Reid vapor pressure value (Test Method D 323 or D 2551); apply these directly in the equation.

$$T_{V/L-20} = 52.47 - 0.33(\text{RVP}) + 0.20 T_{10} + 0.17 T_{50}$$

where:

$T_{V/L-20}$ = temperature, °C, at V/L of 20:1,

RVP = Reid vapor pressure, kPa,

T_{10} = distillation temperature, °C, at 10 % evaporated, and

T_{50} = distillation temperature, °C, at 50 % evaporated.

or in the inch-pound customary unit equation:

$$T_{V/L=20} = 114.6 - 4.1 (RVP) + 0.20 T_{10} + 0.17 T_{50}$$

where:

$T_{V/L=20}$ = temperature, °F, at V/L of 20:1.

RVP = Reid vapor pressure, psi

T_{10} = distillation temperature, °F, at 10 % evaporated, and

T_{50} = distillation temperature, °F, at 50 % evaporated.

X2.4 Nomogram Method

X2.4.1 *Summary*—Two nomograms have been developed and are included herein (Figs. X2.9 and X2.10) to provide the same function as the linear equations procedure outlined above. Figure X2.9 is in SI units and Fig. X2.10 is in inch-pound units. The nomograms are based on the two equations and the same limitations apply to their use in estimating V/L (20) temperatures.

X2.4.2 *Procedure*—Obtain 10 % evaporated and 50 % evaporated points from the distillation curve (Method D 36) along with the Reid vapor pressure (Test Methods D 323 or D 2551). Select the SI unit (Fig. X2.9) or inch-pound unit (Fig. X2.10) nomogram based on the units of T_{10} , T_{50} , and RVP. Using a straightedge, locate the intercept on the line between the " T_{10} and T_{50} " scales after selecting the applicable T_{10} and T_{50} values. From this intercept and the proper point on the "RVP" scale, a second intercept can be obtained on the " $T_{V/L=20}$ " scale to provide the desired value directly.

X2.5 Precision

X2.5.1 The precision of agreement between temperature-V/L data estimated by any one of these three techniques and data obtained by Test Method D 2533 has not been established.

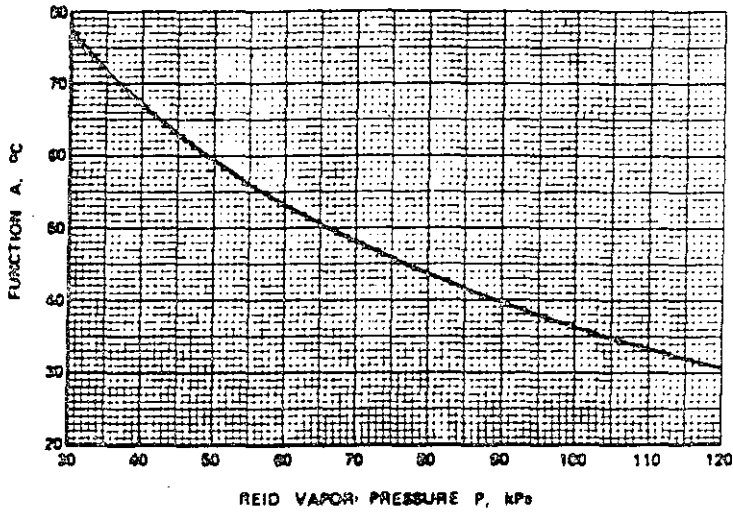


FIG. X2.1 Function A versus Reid Vapor Pressure P

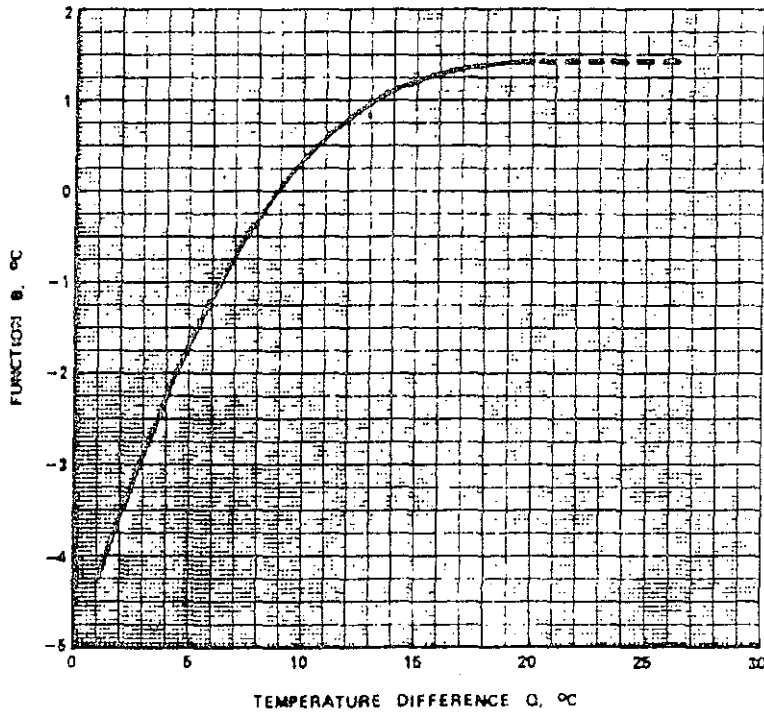


FIG. X2.2 Function B versus Distillation Temperature Difference Q

MSM

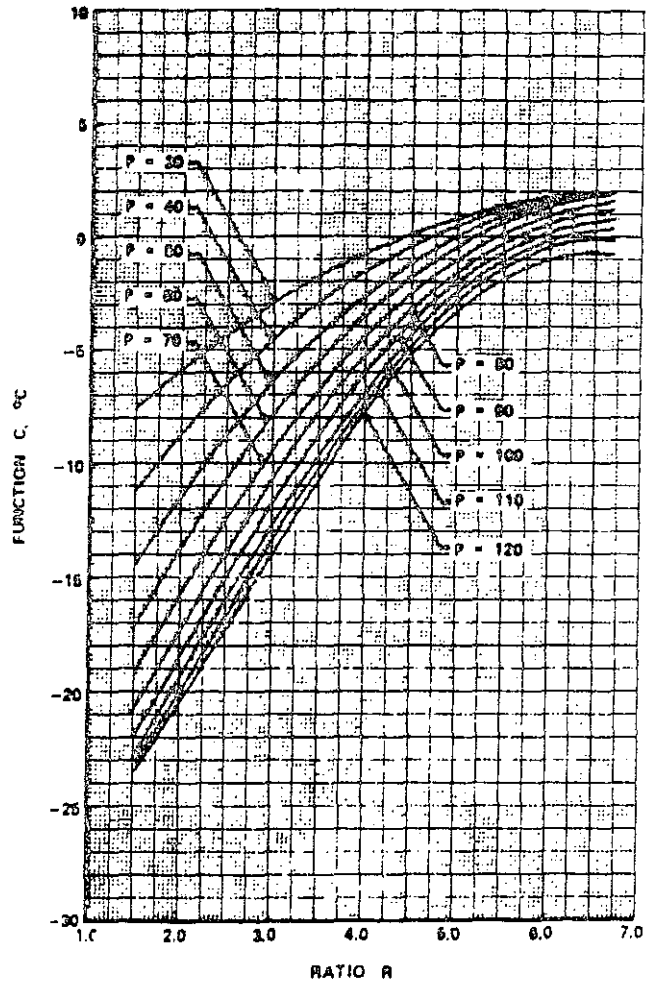


FIG. X2:3 Function C versus Ratio R and Reid Vapor Pressure P

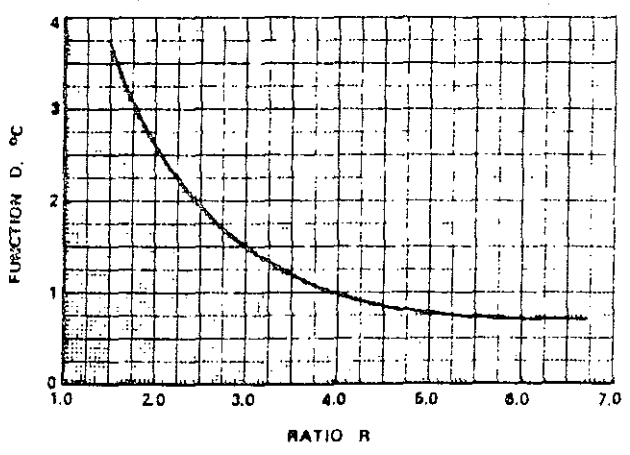


FIG. X2:4 Function D versus Ratio R

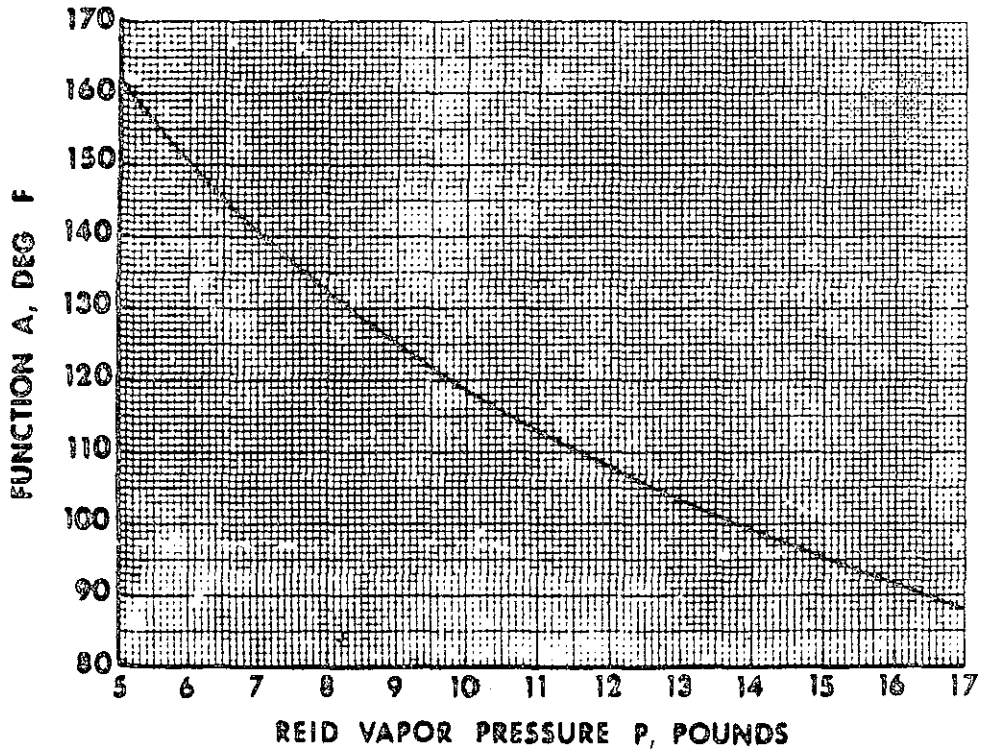


FIG. X2.5 Function A versus Reid Vapor Pressure P

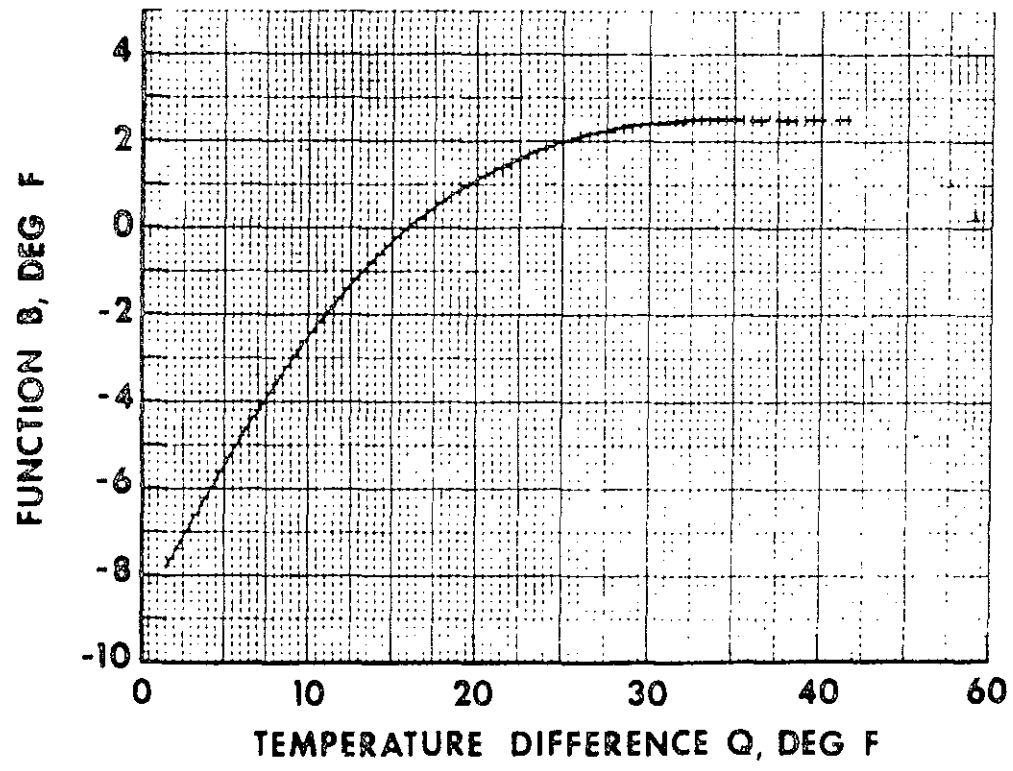


FIG. X2.6 Function B versus Distillation Temperature Difference Q

V
S
M
F

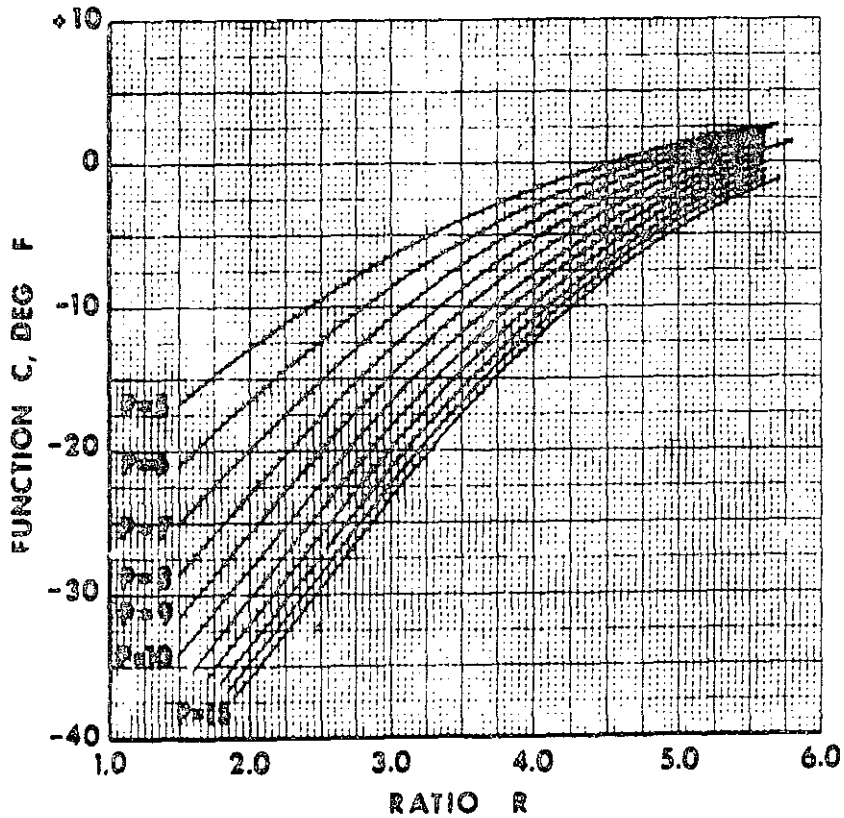


FIG. X2.7 Function C versus Ratio R and Reid Vapor Pressure P

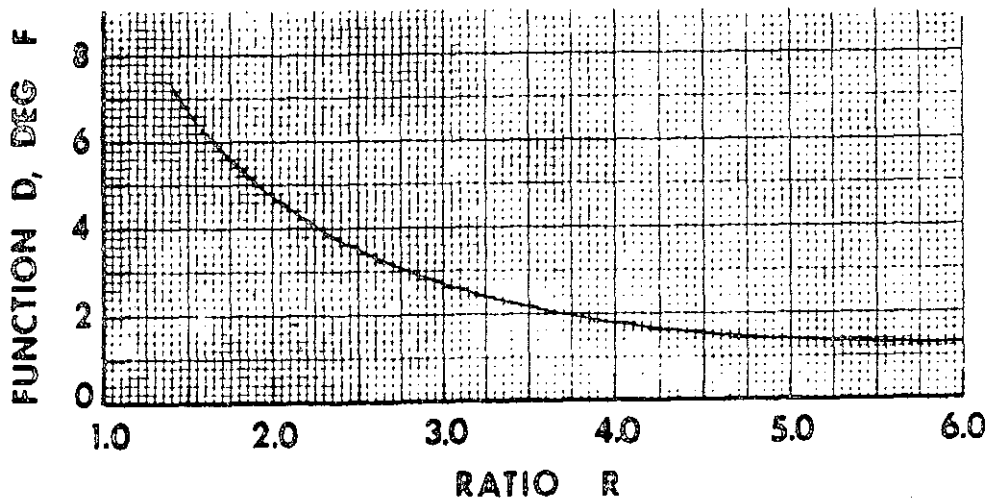


FIG. X2.8 Function D versus Ratio R

03-17

V
S
M
E
I

D 433

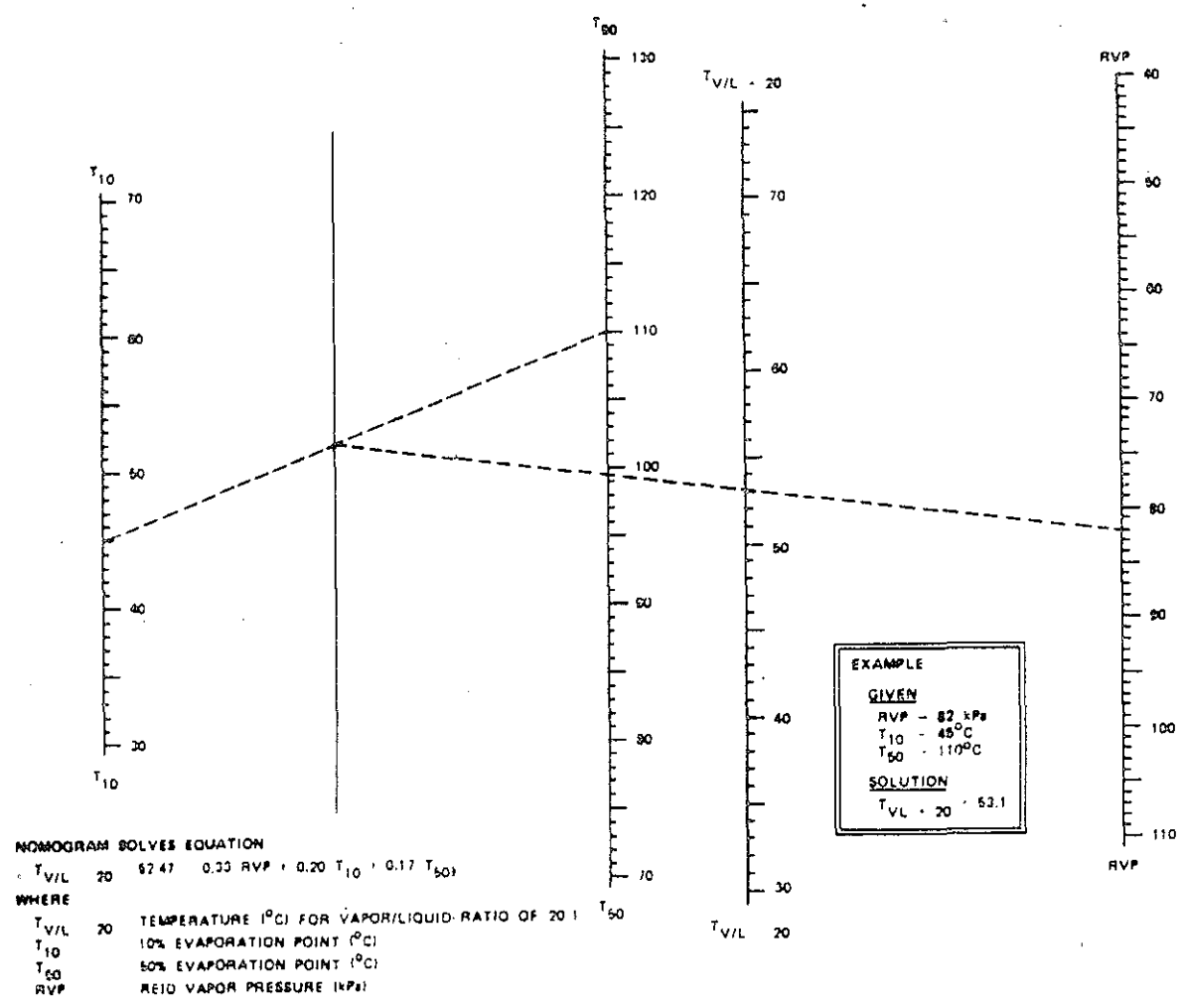


FIG. X2.9 Relationship Between Gasoline Volatility and Temperature for V/L Ratio at Sea Level—SI Units

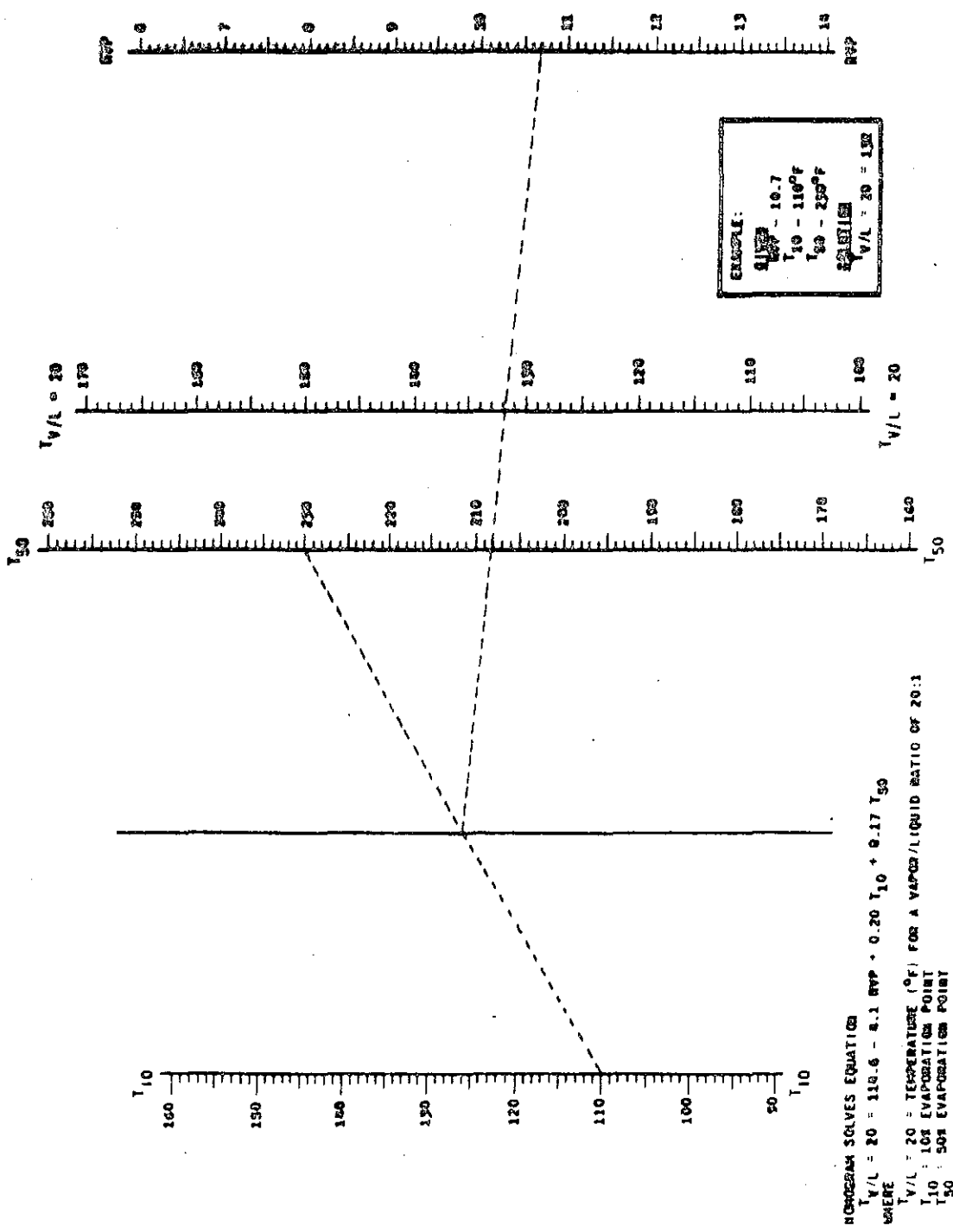


FIG. X2.10 Relationship Between Gasoline Volatility and Temperature for V/L Ratio of 20 at Sea Level— Inch-Pound Units

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This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, 1916 Race St., Philadelphia, PA 19103.

WORK SESSION
 REQUEST FOR EQC DISCUSSION

Meeting Date: 01/19/89
 Agenda Item: 1
 Division: AO
 Section: _____

SUBJECT:

Gasoline Volatility Cap

PURPOSE:

To further reduce ozone precursors prior to the 1989 ozone season and thus have greater assurance that the Portland Metropolitan area will be in compliance with national ozone standards.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other:
 - Policy guidance on implementation of VOC controls by establishing maximum RVP (Reid Vapor Pressure) standards for motor gasoline.

- Authorize Rulemaking Hearing
 - Proposed Rules (Draft) Attachment A
 - Rulemaking Statements Attachment _____
 - Fiscal and Economic Impact Statement Attachment _____
 - Draft Public Notice Attachment _____
- Adopt Rules
 - Proposed Rules (Final Recommendation) Attachment _____
 - Rulemaking Statements Attachment _____
 - Fiscal and Economic Impact Statement Attachment _____
 - Public Notice Attachment _____
- Issue Contested Case Decision/Order
 - Proposed Order Attachment _____
- Other (specify)

Meeting Date: January 19, 1989
Agenda Item: 1
Page 2

AUTHORITY/NEED FOR ACTION:

| | |
|---|---------------------|
| <input checked="" type="checkbox"/> Pursuant to Statute: <u>ORS 468.295</u> | Attachment <u>B</u> |
| Enactment Date: _____ | |
| <input type="checkbox"/> Amendment of Existing Rule: _____ | Attachment _____ |
| <input type="checkbox"/> Implement Delegated Federal Program: _____ | Attachment _____ |
| Department Recommendation: _____ | Attachment _____ |
| <input type="checkbox"/> Other: _____ | Attachment _____ |

Time Constraints:

To deal with 1989 Summer Ozone (May - Sept) requires policy direction, hearing authorization, public hearing and rule adoption. To meet time constraint, Emergency rule consideration may be necessary.

Gasoline volatility has been increasing in recent years, which has interfered with progress to control ozone. USEPA proposed volatility limits in August of 1987 (to be effective in May of 1989), but USEPA may not finalize in time for the 1989 ozone season.

DESCRIPTION OF REQUESTED ACTION:

Policy direction on whether to proceed on State gasoline volatility cap and regulations.

DEVELOPMENTAL BACKGROUND:

| | |
|--|--------------------------|
| <input checked="" type="checkbox"/> Department Report (Background/Explanation) | Attachment <u>C</u> |
| <input type="checkbox"/> Advisory Committee Report/Recommendation | Attachment _____ |
| <input type="checkbox"/> Hearing Officer's Report/Recommendations | Attachment _____ |
| <input type="checkbox"/> Response to Testimony/Comments | Attachment _____ |
| <input checked="" type="checkbox"/> Prior EQC Agenda Items: | |
| Agenda Item F, September 27, 1985 | |
| Agenda Item M, January 3, 1986 | |
| Provide additional background on Oregon Ozone Strategy | Attachments Not included |
| <input type="checkbox"/> Other Related Reports/Rules/Statutes: | Attachment _____ |

Meeting Date: January 19, 1989
Agenda Item: 1
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CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Helps insure attainment and maintenance of ozone standard.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

Statewide application to major petroleum suppliers, fuel distribution system operations. Would affect gasoline distribution between May - September resulting in an approximate 1¢/gal increase in 1989/91 with price increases of about 2¢/gal long term.

PROGRAM CONSIDERATIONS:

Could require compliance checks by Department staff. Audit of industry records. Periodic inspection and testing.

POLICY ISSUES FOR COMMISSION TO RESOLVE:

Do we wait for EPA? or do we act now?

COMMISSION ALTERNATIVES:

1. Wait for USEPA action.
2. Regular Rules Schedule - Hearing authorization in March 1989, public hearing(s) in April, 1989, rules adoption in June, 1989.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

1. Do not wait for EPA to act on gasoline volatility issue.
2. Proceed expeditiously with public hearings for gasoline volatility rule for Oregon.
3. Hold public hearing(s) in March 1989.

INTENDED FOLLOWUP ACTIONS:

1. Return to Commission for hearing authorization at March EQC meeting.

Meeting Date: January 19, 1989
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Approved:

Section:

Ron Housholder

Division:

~~Walter D. Dobb~~

Director:

Lydia Taylor

Contact: Merlyn Hough/Bill Jasper

Phone: 229-6446/229-5081

MH:BJ:d
AD4252 (EQC.NEW 12/19/88)
December 29, 1988

Attachment A

POTENTIAL NEW RULES

Gasoline Volatility

Definitions

340-22-060 As used in this regulation, "gasoline" means any petroleum distillate having a Reid Vapor Pressure of more than four pounds as defined by ASTM Method D323.

Reid Vapor Pressure for Gasolines

340-22-065 No person shall sell, distribute, use, or make available for use, any gasoline having a Reid Vapor Pressure greater than 10.5 pounds per square inch during the period May 16 through September 15 of each year, beginning in 1989.

Test Method

340-22-070 Sampling and testing of gasoline shall be in accordance with ASTM Method D323 or an equivalent method approved by the Director.

468.295 Air purity standards; air quality standards. (1) By rule the commission may establish areas of the state and prescribe the degree of air pollution or air contamination that may be permitted therein, as air purity standards for such areas.

(2) In determining air purity standards, the commission shall consider the following factors:

(a) The quality or characteristics of air contaminants or the duration of their presence in the atmosphere which may cause air pollution in the particular area of the state;

(b) Existing physical conditions and topography;

(c) Prevailing wind directions and velocities;

(d) Temperatures and temperature inversion periods, humidity, and other atmospheric conditions;

(e) Possible chemical reactions between air contaminants or between such air contaminants and air gases, moisture or sunlight;

(f) The predominant character of development of the area of the state, such as residential, highly developed industrial area, commercial or other characteristics;

(g) Availability of air-cleaning devices;

(h) Economic feasibility of air-cleaning devices;

(i) Effect on normal human health of particular air contaminants;

(j) Effect on efficiency of industrial operation resulting from use of air-cleaning devices;

(k) Extent of danger to property in the area reasonably to be expected from any particular air contaminants;

(l) Interference with reasonable enjoyment of life by persons in the area which can reasonably be expected to be affected by the air contaminants;

(m) The volume of air contaminants emitted from a particular class of air contamination source;

(n) The economic and industrial development of the state and continuance of public enjoyment of the state's natural resources; and

(o) Other factors which the commission may find applicable.

(3) The commission may establish air quality standards including emission standards for the entire state or an area of the state. The standards shall set forth the maximum amount of air pollution permissible in various categories of air con-

taminants and may differentiate between different areas of the state, different air contaminants and different air contamination sources or classes thereof. (Formerly 449.785)

468.300 When liability for violation not applicable. The several liabilities which may be imposed 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 this chapter upon persons violating the provisions of any rule, standard or order of the commission pertaining to air pollution shall not be so construed as to include any violation which was caused by an act of God, war, strife, riot or other condition as to which any negligence or willful misconduct on the part of such person was not the proximate cause. (Formerly 449.525)

468.305 General comprehensive plan.

Subject to policy direction by the commission, the department shall prepare and develop a general comprehensive plan for the control or abatement of existing air pollution and for the control or prevention of new air pollution in any area of the state in which air pollution is found already existing or in danger of existing. The plan shall recognize varying requirements for different areas of the state. (Formerly 449.782)

468.310 Permits. By rule the commission may require permits for air contamination sources classified by type of air contaminants, by type of air contamination source or by area of the state. The permits shall be issued as provided in ORS 468.065. (Formerly 449.727)

468.315 Activities prohibited without permit; limit on activities with permit. (1) Without first obtaining a permit pursuant to ORS 468.065, no person shall:

(a) Discharge, emit or allow to be discharged or emitted any air contaminant for which a permit is required under ORS 468.310 into the outdoor atmosphere from any air contamination source.

(b) Construct, install, establish, develop, modify, enlarge or operate any air contamination source for which a permit is required under ORS 468.310.

(2) No person shall increase in volume or strength discharges or emissions from any air contamination source for which a permit is required under ORS 468.310 in excess of the permissive discharges or emission specified under an existing permit. (Formerly 449.731)

468.320 Classification of air contamination sources; registration and reporting of sources. (1) By rule the commis-

ATTACHMENT C

MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Work Session Item January 19, 1989, EQC Meeting
Gasoline Volatility Cap

BACKGROUND

The U. S. Environmental Protection Agency (EPA) regards the Portland metro area as in continuing non-attainment for ozone. The Department believes the State Implementation Plan (SIP), approved by EPA, has been faithfully implemented and attainment/non-attainment status should be based upon post-1987 monitored air quality values. To achieve compliance, the one hour standard of 0.12 parts per million (ppm) cannot be exceeded more than once per year per monitoring site when averaged over a three year period.

The Department may or may not be successful in convincing EPA that attainment/non-attainment should be based upon post-1987 monitoring. To date, EPA maintains an area's status should depend upon the most recent 3 years of air quality data. Currently that would be the years 1986, 1987, and 1988. If 1986 data is included, the 3 year average is more than one exceedance per site per year. If the 1989 monitored air quality shows little or nothing in the way of exceedances, the 3 year average of 1987, 1988, and 1989 should document the area's attainment status.

Whether attainment is determined solely on the basis of post-1987 air quality or on the most recent three year average of exceedances, 1989 is a critical year for the Portland area. Given the relationship between ozone concentrations and meteorology, and the unpredictability of western Oregon's summer weather, further measures to reduce ozone precursors prior to or during the 1989 ozone season should increase the probability of attainment.

Attainment is an important issue. Under the terms of the Clean Air Act, economic sanctions can be applied to areas that fail to meet the ambient air health standards. Oregon wants to provide a

good environment for its citizens and a good base for economic development.

OZONE AND HYDROCARBONS

Ozone can be both protection and pollution in our environment. In the stratosphere, ozone protects the earth from the harmful effects of ultraviolet radiation. There is concern about the depletion of this ozone. At the ground level, ozone is the chemical that is measured to track all photochemical oxidants. When an air pollutant it has undesirable effects on people, plants and materials.

Ozone is a highly reactive compound and the main component of photochemical oxidants or smog. In high concentrations it can cause difficulty in breathing, chest pain, chest and nasal congestion, coughing, eye irritation, nausea and/or headaches. Ozone is a colorless gas that has a pungent metallic odor in high concentrations. It can reduce plant growth and crop yield. It can affect a variety of materials, resulting in fading of paint and fabric and accelerated ageing and cracking of synthetic rubbers and similar materials.

It is formed during the photochemical reaction between oxides of nitrogen (NOx) and volatile organic compounds (VOC) or hydrocarbons. The reactions occur in the presence of direct sunlight and warm temperatures. The highest concentrations of ozone generally occur downwind of urban areas. For example, the highest ozone concentrations in the greater Portland area have been measured in the Milwaukie to Molalla area.

Nitrogen dioxide, a major component of NOx is a toxic reddish-brown gas. It is formed during the combustion processes, such as in automobile engines, boilers, or from a variety of industrial sources.

Volatile organic compounds, in this case hydrocarbons emitted from gasoline, also come from a variety of sources. Hydrocarbons are one of the main components of auto exhaust, and are currently regulated in the inspection/maintenance program. In addition to the tailpipe sources, they are also generated from evaporation of gasoline, both at service stations and from the cars and trucks fuel tanks. This is the specific target area for discussion. Industrial sources are strictly regulated, but can be sizable emitters. Providing significant hydrocarbon reductions from gasoline marketing will help meet the ambient health standards and should allow for economic expansion from another source, such as an electronics manufacturing plant.

Improving the control of VOCs, specifically through the reduction of hydrocarbon emissions resulting from evaporative losses associated with gasoline marketing, will result in a reduction of ozone.

CONTROL TECHNIQUES

There are three major methods of controlling hydrocarbons from gasoline marketing operations that can be regulated by the state. They are Stage I, Stage II, and gasoline volatility control. A fourth method, based upon improving the on board vapor storage affects only new motor vehicles, and can only be regulated by the federal government. EPA has been studying this strategy as an option, but has not yet made any decision on improving on board vapor storage.

Stage I controls the emissions during the filling of the fuel trucks at the gasoline distributors and the filling of the underground tanks at the service stations. Stage I controls are in place in the major metropolitan areas in Oregon.

Stage II controls the emissions from the service station when the gasoline is used to fill the vehicle fuel tank. Stage II controls are found in a number of areas in the country and are considered a cost-effective means of obtaining hydrocarbon control.

Gasoline volatility controls regulate the Reid Vapor Pressure. RVP is a measure of how easily gasoline evaporates. The specific test method is defined in ASTM D 323. By regulating the vapor pressure of gasoline, significant emission reductions can be obtained and the value of Stage II type-controls would need to be reevaluated, at least in the short term.

EPA ACTION

The most immediately achievable reduction is through the adoption of a limit on the volatility of gasoline sold during the ozone season. Recognizing this, EPA proposed to implement a system of national gasoline evaporative emission standards in August 1987. In western Oregon, a 10.5 psi standard would initially be established, with the standard dropping to 9 psi in 1992. OMB review and delays during the changing of administrations may prevent EPA's volatility limit from taking effect before the 1989 ozone season.

STATE ACTION-A BACKUP PLAN

As a safeguard against such a circumstance, the Commission could consider its own action, adopting a limit on gasoline volatility prior to the 1989 ozone season. A phased approach, similar to the EPA approach, of a 10.5 psi (Reid Vapor Pressure) limit in 1989 followed by a 9.0 psi limit in 1991/1992 would probably be the most efficient. The Clean Air Act provides EPA with preemptive authority in setting volatility limits, so it would appear prudent to adopt the same limits proposed by EPA.

Informal discussions with some representatives of the petroleum industry have indicated that a RVP cap on motor gasoline is expected in the future, if only under federal mandate. They have also indicated that the phased approach would pose the least amount of problems to their industry, but have indicated that there may be a great concern at the 9 psi limit. Because of the marketing and distribution system of gasoline in Oregon, a RVP cap on motor gasoline could apply statewide.

GASOLINE IN OREGON

The gasoline sold in Oregon comes primarily from the Puget Sound area via the pipeline (60-70%) and California via tanker (about 30%). Other gasoline enters the state by tanker at Coos Bay and from being barged down river from the refineries in the Salt Lake area. Currently, summer gasoline sold in the Portland area during the ozone season averages about 11.5 psi RVP. A reduction to 10.5 psi represents a VOC reduction of approximately 5,000 kilograms per average summer workday, or a 4% reduction in overall VOC emissions. This means that during the 4 month period, May 15 through September 15, the environment would receive about 600 tons of VOC less than received during the same period prior to establishment of a volatility limit.

The question may arise as to what the petroleum refiners will do to change the composition of motor gasoline and can these changes be incorporated into a 1989 time frame. It is the understanding of the staff, that the refineries will be able to accommodate a 10.5 psi RVP fuel for this summer. Simplistically, it will be accomplished by reducing the amount of butane normally blended into motor gasoline.

The cost of reducing the volatility to 10.5 psi is expected to result in under a penny a gallon increase in the cost of gasoline to the consumer. Approximately 44,000,000 gallons per month of gasoline are sold within the Portland metro area during the ozone season. Statewide, there are about 120,000,000 gallons per month of gasoline sold. A \$0.006-\$0.008 increase, therefore, represents an overall cost of \$3-4 million per ozone season, statewide.

However, the lower gasoline volatility would benefit driveability and fuel economy. The benefits of improved fuel economy, while not likely to be noted by the individual motorist, would reduce the net cost to less than \$1 Million per ozone season. This would result in a net cost-effectiveness of \$320-\$500 per ton of VOC reduction. (For perspective, VOC control cost of \$2000 per ton are generally considered reasonable.)

The VOC reductions from a statewide gasoline volatility limit would benefit both the Portland area, and would also help in maintaining the ozone standard in other areas of Oregon, such as Salem, Eugene, and Medford.

Two staff memos are attached to this report. These memos discuss the issues of fuel volatility. They were prepared from different perspectives and provide additional background. The first report examines some of the historical data, showing how fuel volatility has increased over the years and provides some estimates on the emission reductions that might be achieved. The second report discusses the EPA's 1987 volatility proposal and also how the different states address the issues of fuel quality.

DISCUSSION ON A PROPOSAL FOR A RULE

To facilitate discussion, proposed rule amendments which would establish a maximum RVP on motor gasoline sold in the state are included in the Commission package. Any rule adoption, would be proposed under ORS 468.295. This is the Commission's general authority for rulemaking.

The staff has had discussions with its counterparts in the Washington Department of Ecology and regional pollution control agencies. Both staffs are working on how to improve hydrocarbon controls through RVP controls. It is a desire that the result from both states will be compatible, since both states appear to be following the same paths. The timetables, however, may be different, since the Seattle area ozone interest is more of a "maintenance" issue, rather than the "compliance" issue in Portland.

The neighboring states of Idaho and California have adopted volatility controls on gasoline. Idaho and California have incorporated all of the standards associated in ASTM D-439. Furthermore, California has specifically adopted a statewide standard of 9.0 psi RVP. California also has very specific legislative mandate for that 9.0 psi standard. The gasoline currently manufactured in California for sale in Oregon does not necessarily meet the tighter California standards.

CONCLUSION

There is an issue of compliance and maintenance with the ozone standard in the Portland metropolitan area for 1989. Obtaining more control on hydrocarbon emissions will result in less pressure on the ozone standard. Hydrocarbon emissions resulting from fuel evaporative losses and gasoline marketing can be controlled through the establishment of both a volatility standard and implementation of Stage II vapor controls, though only the impact of a volatility standard has been discussed. The USEPA has proposed nationwide RVP specifications that would affect the volatility of gasoline sold in Oregon. For a variety of reasons, there is doubt that USEPA will enact volatility standards in sufficient time for the 1989 ozone season. The Commission has the authority to establish RVP standards for motor gasoline sold, and should consider such action as a public health measure, pending action by the USEPA.

If the Commission directs that a program be developed to implement RVP controls for the 1989 ozone season, the phased approach outlined earlier appears reasonable.

DATE: September 30, 1988

TO: John Kowalczyk, Nick Nikkila

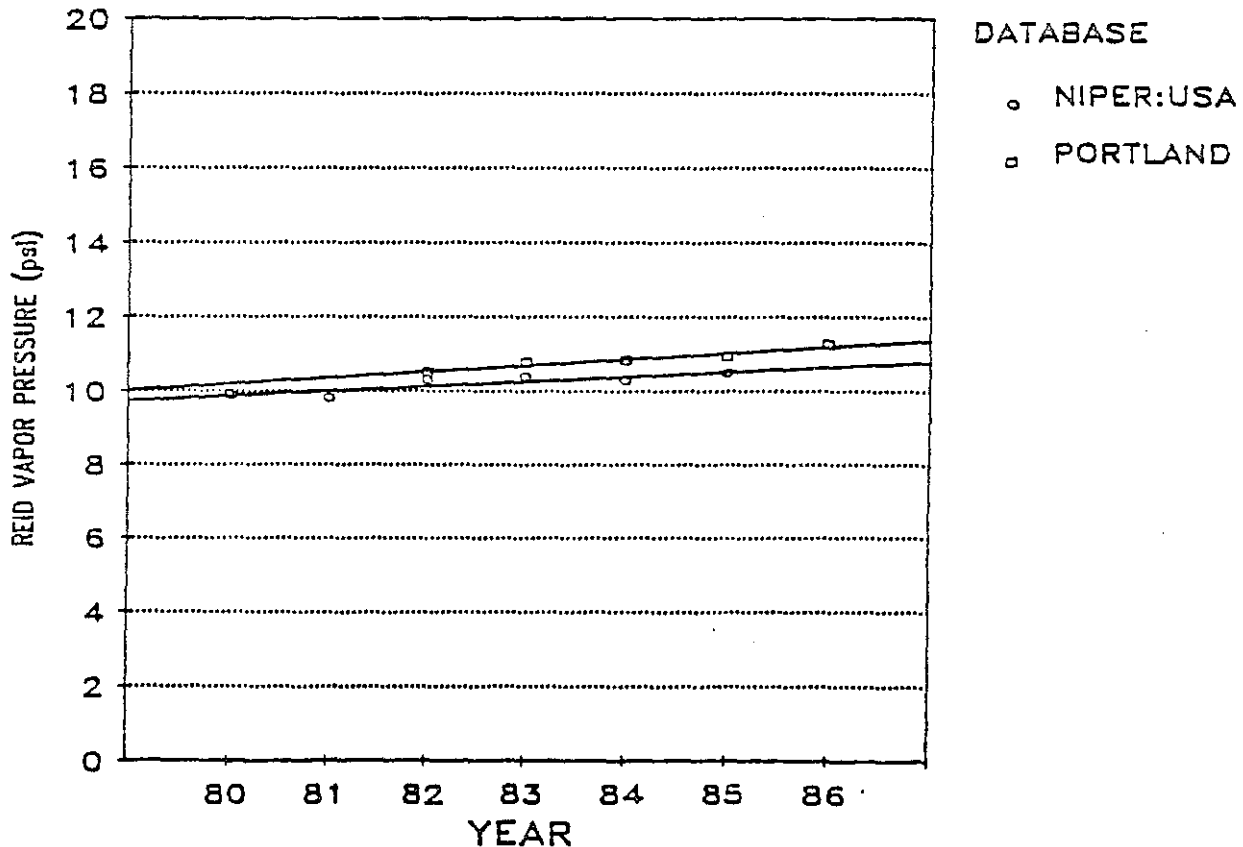
FROM: Merlyn Hough *Merlyn*

SUBJECT: Gasoline Volatility and Stage II Information

BACKGROUND

As you are aware, gasoline volatility has been steadily increasing in the non-California U.S. and Portland in particular in recent years. Figure 1 outlines the trend and shows that the gasoline volatility in Portland has consistently been above the national average. This increasing trend is of concern because it results in more gasoline vapors in the atmosphere which contributes to ozone formation downwind of the Portland area.

Figure 1
GASOLINE VOLATILITY TRENDS



Three options have been identified to further reduce gasoline-related emissions: (1) Onboard canisters and improved evaporative control systems on new motor vehicles; (2) Volatility limits on gasoline; and (3) Stage II service station controls. The first option (onboard controls) would possibly be the most cost-effective option in the long-term but would require several years to provide significant air quality benefits, would require action at the national level by the U.S. Environmental Protection Agency, and would probably require signoff by the National Highway Traffic Safety Administration regarding safety issues. The second and third options (volatility limits and Stage II controls) could be implemented at either the state or national level.

The three control options would control gasoline vapors in different ways. Onboard controls would reduce refueling emissions (ie, Stage II) and vehicle running losses (diurnal and hot soak emissions). Volatility limits would reduce gasoline evaporation throughout the gasoline distribution system (terminals, bulk plants, barge loading, Stage I and Stage II) and vehicle running losses. Stage II service station controls would reduce gasoline vapors from refueling and evaporation from underground storage tanks but would not affect running losses. Onboard and Stage II controls would also reduce benzene and other toxic emissions. The California Air Resources Board supports and is implementing a multi-faceted approach using all three of these control options.¹

VOLATILITY LIMITS

Portland area gasoline has an average volatility of about 11.5 pounds per square inch (psi) Reid vapor pressure (RVP).^{2,3} An RVP reduction of 1.0 psi (to 10.5 psi) would provide a 9% reduction in gasoline distribution system emissions and a 7-8% reduction in vehicle emissions.^{4,5} This would provide about a 4% reduction, or a 4-5 megagram per day (Mg/d) reduction, in overall volatile organic compound (VOC) emissions in the Oregon portion of the Portland-Vancouver Air Quality Maintenance Area (Portland AQMA). An RVP reduction of 2.5 psi (to 9.0 psi) would provide a 20-22% reduction in gasoline distribution system emissions and a 15-16% reduction in vehicle emissions.^{4,5} This would provide a 7-8% reduction (9-10 Mg/d) in overall VOC emissions in the Portland AQMA. This 7-8% airshed reduction from a 9.0 RVP limit compares to 5-7% calculated airshed benefits for Detroit, Rhode Island, and New York City.^{4,6} Since it is on the high side of the range for these other areas, the more conservative lower end of the Portland range is used in the subsequent tables and charts.

Figure 2 outlines the VOC emissions in the Portland AQMA for various RVP gasoline (1986 basis). Figure 3 indicates the VOC reduction for various RVP gasoline.

Figure 2
PORTLAND VOC EMISSIONS AT VARIOUS RVPs

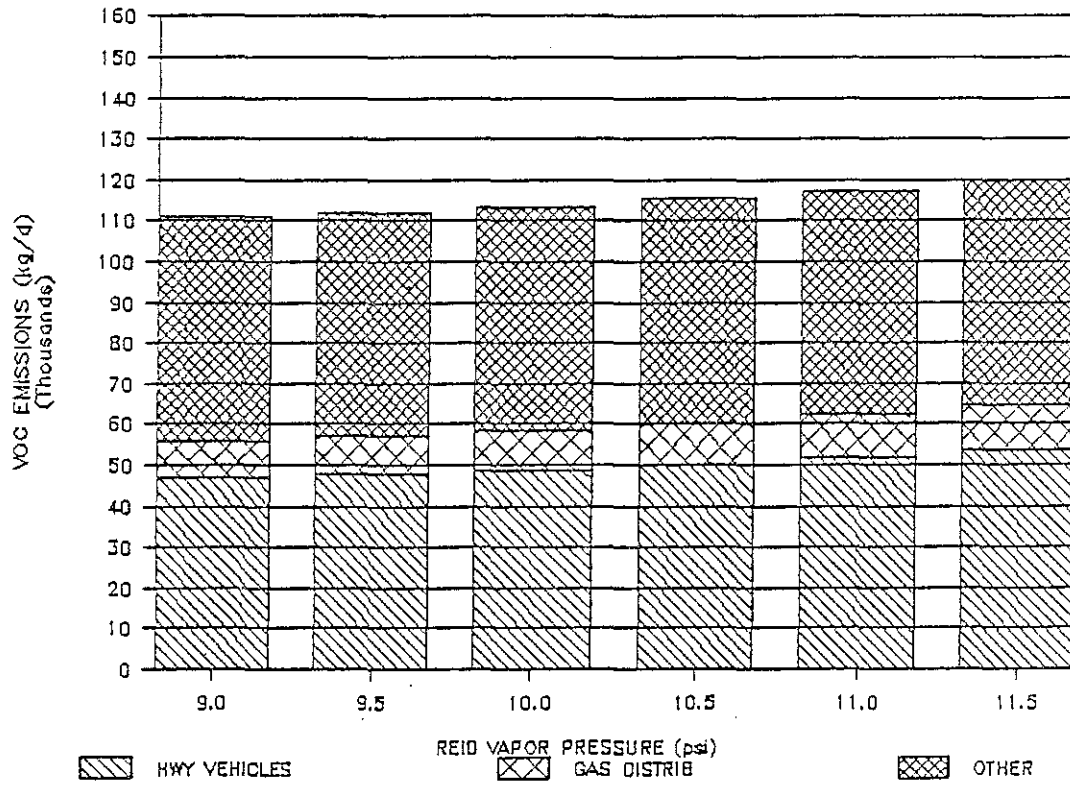
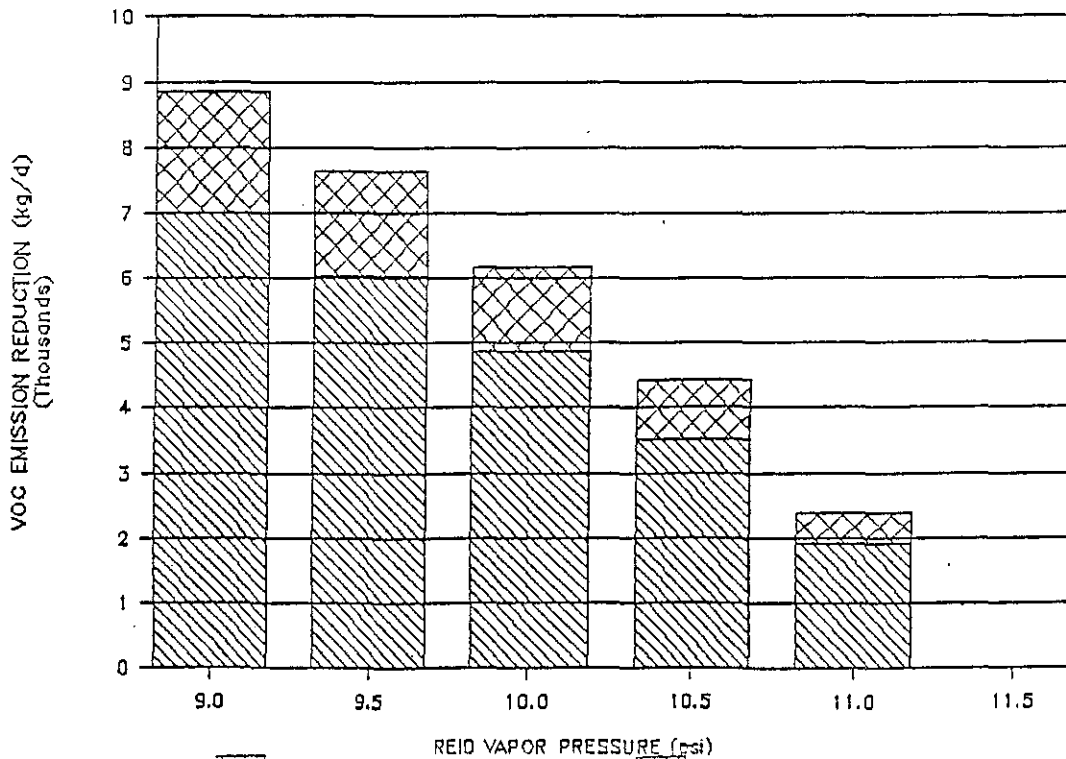


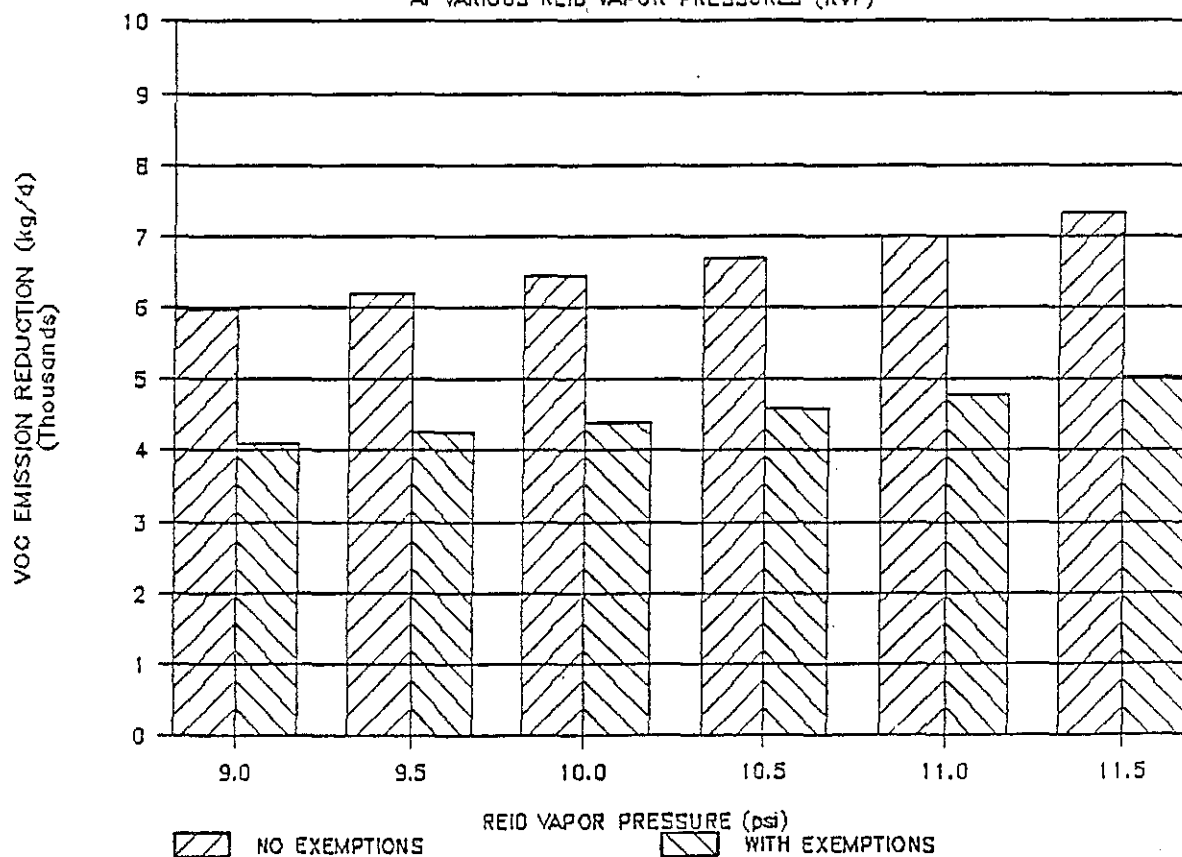
Figure 3
PORTLAND VOC REDUCTIONS AT VARIOUS RVPs



STAGE II SERVICE STATION CONTROLS

Stage II service station vapor recovery equipment has a maximum potential efficiency of 95% control of refueling emissions. The California in-use efficiency is 80-92% due to some equipment defects.¹ EPA has estimated the Stage II control efficiency at 63-92% depending on the number of exempt smaller service stations.⁷ Stage II service station controls would provide a 3-6% reduction (4-7 Mg/d) in overall VOC emissions in the Portland AQMA as outlined in Figure 4.

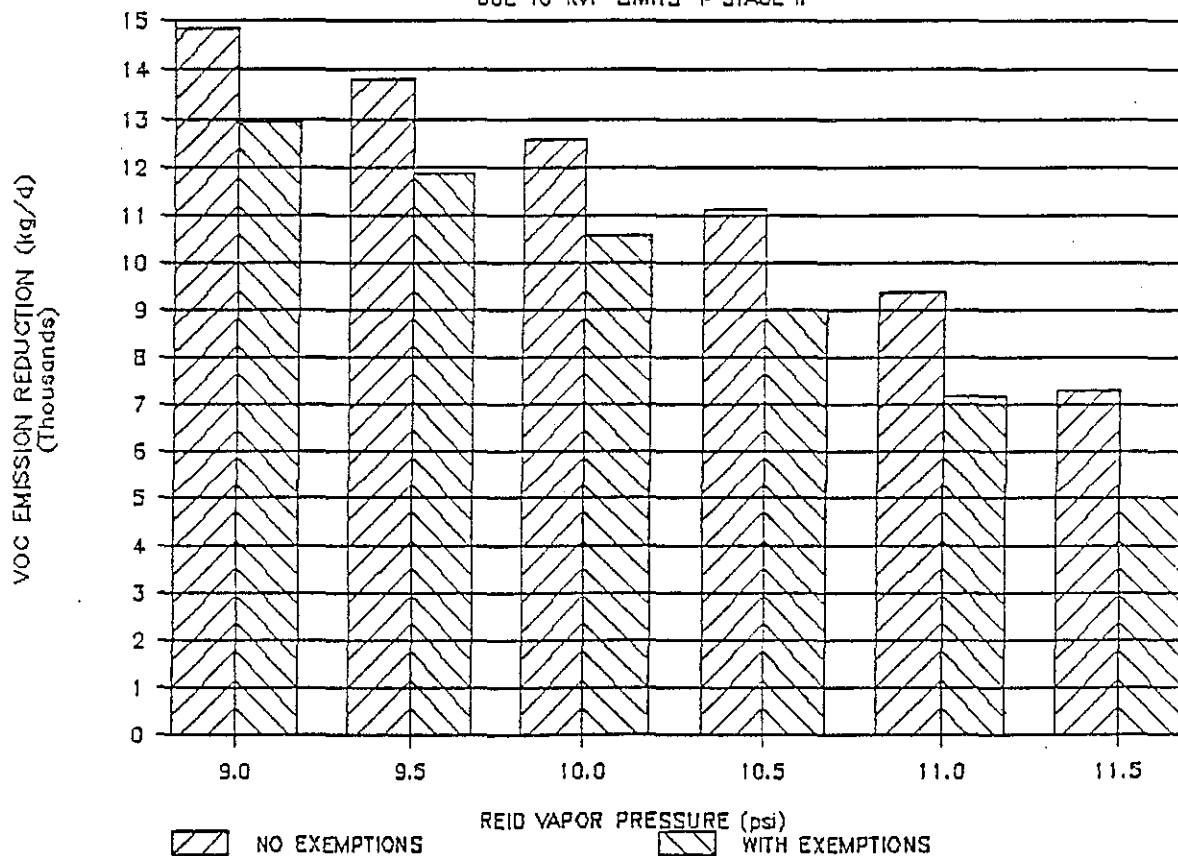
Figure 4
PORTLAND STAGE II VOC REDUCTIONS
AT VARIOUS REID VAPOR PRESSURES (RVP)



COMBINATION OF VOLATILITY LIMITS AND STAGE II

Volatility limits could be combined with Stage II service station controls. The combination of a 10.5 psi RVP limit and Stage II would provide a 8-9% reduction (9-11 Mg/d) in overall VOC emissions in the Portland AQMA depending on the number of service station exemptions. The combination of a 9.0 psi RVP limit and Stage II would provide an 11-12% reduction (13-15 Mg/d) in overall VOC emissions in the Portland AQMA depending on the number of service station exemptions. The VOC reductions from these and other combinations are outlined in Figure 5.

Figure 5
PORTLAND POTENTIAL VOC REDUCTIONS
DUE TO RVP LIMITS + STAGE II



COST-EFFECTIVENESS

A number of cost-effectiveness estimates have been made for various gasoline-related control strategies. Onboard controls would cost \$15 to \$30 per vehicle or \$190 to \$390 per ton of VOC reduction.^{7,8} A 1.0 psi reduction in RVP would cost 0.6 to 0.8 cents per gallon or \$320 to \$500 per ton.⁸ A 2.5 psi reduction in RVP would cost 1.5 to 2.0 cents per gallon or \$400 to \$600 per ton.^{6,8} Stage II service station controls would cost \$620 to \$1940 per ton with station-size exemptions and \$1470 to \$2890 per ton without exemptions.^{7,8}

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5. P.B. Bosserman, "Changes in VOC Emissions from Changes in RVP," inter-office memorandum, Oregon Department of Environmental Quality, January 21, 1987.
6. S. Majkut, Regulation No. 11.7 and Hearing Officer's decision and response to comments from public hearing, Rhode Island Department of Environmental Management, August 11, 1988.
7. U.S. Environmental Protection Agency, "Evaluation of Air Pollution Regulatory Strategies for Gasoline Marketing Industry," EPA-450/3-84-012a, Office of Air and Radiation, USEPA, Washington D.C., July 1984.
8. C.H. Schleyer and W.J. Koehl, "A Comparison of Vehicle Refueling and Evaporative Emission Control Methods for Long-Term Hydrocarbon Control Progress," SAE Paper 861552, International Fuels and Lubricants Meeting, Philadelphia, Pennsylvania, October 6-9, 1986.

Memo to: John Kowalczyk, Nick Nikkila
 September 30, 1988
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PERCENT VOC REDUCTIONS DUE TO GASOLINE RVP CHANGES

| HIGHWAY VEHICLES | | | GASOLINE MARKETING | |
|------------------|------|------|--------------------|------|
| RVP | PBB | GM | PBB | GM |
| 9.0 | 16.5 | 15.0 | 22.3 | 20.0 |
| 9.5 | 14.3 | 12.7 | 18.2 | 16.7 |
| 10.0 | 11.5 | 10.0 | 13.9 | 13.0 |
| 10.5 | 8.2 | 7.0 | 9.4 | 9.0 |
| 11.0 | 4.4 | 3.7 | 4.8 | 4.7 |
| 11.5 | 0.0 | 0.0 | 0.0 | 0.0 |

PORTLAND AREA VOC EMISSIONS (1986, kg/d) AT VARIOUS GASOLINE RVP

| HIGHWAY VEHICLES | | | GASOLINE MARKETING | | VEHICLES+MARKETING | | OTHER | TOTAL VOC (kg/d) | |
|------------------|-------|-------|--------------------|-------|--------------------|-------|-------|------------------|--------|
| RVP | PBB | GM | PBB | GM | PBB | GM | | PBB | GM |
| 9.0 | 46112 | 46713 | 9127 | 9228 | 55238 | 55941 | 54878 | 110116 | 110819 |
| 9.5 | 46999 | 47680 | 9443 | 9492 | 56443 | 57172 | 54878 | 111321 | 112050 |
| 10.0 | 48179 | 48836 | 9800 | 9800 | 57979 | 58636 | 54878 | 112857 | 113514 |
| 10.5 | 49649 | 50206 | 10203 | 10160 | 59852 | 60365 | 54878 | 114730 | 115243 |
| 11.0 | 51456 | 51820 | 10651 | 10580 | 62107 | 62400 | 54878 | 116985 | 117278 |
| 11.5 | 53720 | 53720 | 11162 | 11074 | 64882 | 64794 | 54878 | 119760 | 119672 |

VOC EMISSION DIFFERENCES (1986, kg/d) AT VARIOUS GASOLINE RVP

| HIGHWAY VEHICLES | | | GASOLINE MARKETING | | VEHICLES+MARKETING | |
|------------------|------|------|--------------------|------|--------------------|------|
| RVP | PBB | GM | PBB | GM | PBB | GM |
| 9.0 | 7608 | 7007 | 2035 | 1846 | 9644 | 8853 |
| 9.5 | 6721 | 6040 | 1719 | 1582 | 8440 | 7622 |
| 10.0 | 5541 | 4884 | 1362 | 1274 | 6903 | 6158 |
| 10.5 | 4071 | 3514 | 959 | 914 | 5030 | 4429 |
| 11.0 | 2264 | 1900 | 511 | 494 | 2775 | 2394 |
| 11.5 | 0 | 0 | 0 | 0 | 0 | 0 |

| GASOLINE VEHICLE REFUELING | | | | STAGE II REDUCTION | | RVP LIMIT+STAGE II | |
|----------------------------|------|----------|----------|--------------------|-------|--------------------|-------|
| RVP | 1986 | STAGE II | STAGE II | NO EXC | W/EXC | NO EXC | W/EXC |
| 9.0 | 6489 | 500 | 2382 | 5990 | 4108 | 14842 | 12960 |
| 9.5 | 6715 | 517 | 2464 | 6197 | 4250 | 13819 | 11872 |
| 10.0 | 6968 | 537 | 2557 | 6431 | 4411 | 12589 | 10568 |
| 10.5 | 7255 | 559 | 2662 | 6696 | 4592 | 11125 | 9021 |
| 11.0 | 7573 | 583 | 2779 | 6990 | 4794 | 9384 | 7188 |
| 11.5 | 7937 | 611 | 2913 | 7325 | 5024 | 7325 | 5024 |


STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMORANDUM

DATE: January 4, 1989

TO: Nick Nikkila, Ron Householder

FROM: Bill Jasper 

SUBJECT: Update on Fuel Volatility Issues

The following updates my report of September 21, 1987 on the issues associated with EPA's rule making activity of fuel volatility and on board vapor control. The main change in the report is the update on the status of EPA's rule making proposal and the deletion of references to gasoline quality and how that can be regulated. The time frame between EPA's initial proposal and today, and the fact that EPA has not been able to finalize its rule proposal, is in itself a measure of the complexities of reducing emissions from gasoline marketing and vehicle refueling.

Gasoline marketing and vehicle refueling are a sizable impact on the total VOC emissions. In the Portland area for 1985, the Emission Inventory estimated their impact at over 8%. Current vapor control efforts are limited to Stage I vapor recovery and the on board controls built into automobiles and light trucks.

Over the past fifteen years the volatility of motor gasoline has been steadily increasing. Summer grade gasoline used to have Reid Vapor Pressure (RVP) values of 8 to 9 psi. There has been a three to four number increase in RVP, with some samples of motor gasoline as high as 15-18 psi being reported. The increase in RVP has prompted concerns about air pollution control efforts now in place. The following is a summary of some of the activities currently proposed.

EPA NOTICE OF PROPOSED RULE MAKING -- AUGUST 19, 1987

EPA published in the Federal Register of August 19, 1987 notice of proposed rule making (NPRM) that affects fuels and gasoline volatility. The NPRM calls for public hearings sometime in October/November and opens the docket for public comment. Briefly EPA's NPRM does several things.

When implemented, the rules would require 1) that the auto manufacturers increase the ability of the vehicles produced to control evaporative emissions (on board vapor storage). 2) The rules would establish nationwide volatility controls on commercial gasoline and gasoline/alcohol blends (RVP controls). 3) The rules provide for revised sampling techniques that can be used for enforcement purposes (sampling of gasolines at the service station hose outlet) and also provide for changes in the evaporative test procedure (SHED).

EPA is in the process at this date, of re-proposing the NPRM, with the additional safety information. EPA needs to address

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January 4, 1989
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safety issues raised by the NHTSA (National Highway Traffic Safety Administration) and the re-proposal appears to do this but in the process EPA may delete the suggested limits on RVP. Part of the uncertainty appears due to the changing in administrations in the capitol. Because of the apparent inaction by EPA, it is prudent for the state to consider a parallel action in order to be prepared for the 1989 ozone season.

Nationwide Status -- Nationwide EPA has 61 non-California cities in non-attainment status for ozone. Modeling indicates that if no additional efforts are made, that there will still be some improvements in the mid-1990's. However by 2010, emission inventories will be worse than in 1988. This would be an indication that the greater Portland area and other areas in the state will have continued ozone attainment concerns well into the next century.

New Car Vapor Storage -- The EPA is proposing that the certification standard be changed to provide for better on board vapor control. EPA notes in the NPRM that "manufacturers of most gasoline-fueled vehicles would need to make minor improvements in the design of their existing evaporative emission control systems." EPA notes that evaporative emissions from carburetor cars are higher than from fuel injected vehicles. In the support document, EPA stated that vehicle manufacturers need to improve the capacity and purging process at least on some vehicles in order to meet the emission standards in the field. The effect of the EPA NPRM would be to have a new regulation that will require the car makers to build a better or larger system.

Vapor Pressure Controls -- Currently there are almost 30 states that regulate fuel volatility. Of these states, only California has adopted RVP control regulations for the expressed purpose of air pollution control. EPA notes in their NPRM that the federal preemption applies to states' adoption of RVP control, if EPA promulgates its own RVP controls. EPA believes that its rules will not override state controls that have been adopted for quality control purposes unless EPA's proposals are more stringent. That is because those state rules were adopted for the purposes of quality control. EPA stated that its regulations would not override California rule because the Clean Air Act California exemption.

It is EPA's opinion that when (and if) it adopts regulations affecting RVP, those regulations will override any similar statute or regulation adopted by states for the purposes of air pollution control. California and any state that implements RVP controls for air pollution purposes and uses its SIP process could have more stringent RVP controls.

The gist of the proposed RVP standard, is to incorporate a 9 psi RVP standard for all Class C areas (as defined by ASTM designations) for 1992. Other ASTM Class areas have different values. This 9 psi value was used by many states, but apparently not by Oregon, in its SIP work. Oregon used a 10.5 psi value

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during the last SIP update. The NPRM also proposes a 10.5 psi RVP limit between 1989 and 1991. Western Oregon is a Class C area. Eastern Oregon (East of 122° Longitude) is an ASTM Class B area.

The values that are proposed for 1989-1991 for western Oregon are 10.5 psi. In eastern Oregon the fuel would be allowed a 10.5 pound value in May and 9.1 psi for the rest of the summer. In 1992 the values would change to 9.0 psi for western Oregon. In eastern Oregon the values would be 9.0 psi for May and 7.8 psi for the rest of the summer. The fuel limits are shared with Washington (all months) and Idaho and Nevada (all except May).

Alcohol Fuels & RVP -- The proposal lists three options for alcohol blended fuels. All of the options deal with fuels that have received EPA waivers, such as gasohol, MTBE, and the like. Under option 1, EPA would continue the total exemption of alcohol fuels from any RVP limits. Under option 2, there would be a 1 psi allowance. Under option 3, all blends would be required to meet the same levels as conventional motor gasolines. The NPRM states that EPA leans to option 2, but will consider testimony and arguments for either of the other two options.

Gasohol -- Gasohol has not made significant inroads into the gasoline market in Oregon. That market trend appears to be continuing. I base that upon current lack of penetration and a lack of local supply of alcohol for splash blending. Should alcohol and other oxygenated fuels make significant inroads into the northwest, it would appear that they would arrive through the conventional distribution system, ie, pipeline already blended by the refineries in Puget Sound.

Enforcement -- EPA reviewed the enforcement methods currently used by states that have adopted ASTM D 439. California is the only state that has in place an extensive sampling network to assure compliance. Many states have reporting requirements, as in Hawaii where the refiners are required to test and report the RVP and other specified parameters. It appears from the NPRM, that EPA believes that states should institute a rigorous enforcement program to monitor fuel RVP.

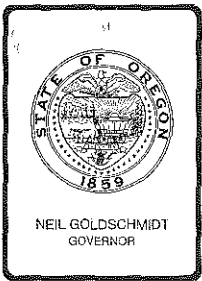
Benzene the Carcinogen -- EPA discusses the role of RVP control on benzene exposure. The NPRM indicates that overall benzene exposure will be reduced with improved volatility limits. While it assumed that the refineries will balance the gasoline blending with aromatics in place of butane and other light compounds, the overall exposure to benzene will be reduced. The reasoning advanced indicates that the reduction in exposure will be achieved because of the overall reduction in gasoline volatility.

There is another health benefit that can also be studied when considering control strategies. That would be the benefit to the worker from controlling benzene emissions. Since Oregon prohibits self-serve gasoline, either Stage II or RVP control would be a benefit to the gas station attendant. California has studied benzene as a pollutant and enacted regulations requiring Stage II

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vapor recovery system in all large volume service stations statewide. This was an important step for California, since it had already mandated Stage II systems in its air pollution control areas. It may be prudent for the DEQ to work with the WCB/APD to jointly explore benefits from this area of VOC controls.

Lead and Lead Phase down -- This proposal does not affect the lead phase down that is occurring. EPA does state in its NPRM, that the lead phase down is on schedule. They note that the date for a total ban on leaded gasoline has not been set. EPA does indicate that the results of the proposed RVP actions are not going to be a direct influence on the lead phase down program.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: March 3, 1989
Agenda Item: G
Division: Air Quality
Section: Program Operations

SUBJECT:

Authorization for a public hearing to consider amending the Air Quality Kraft Mill Regulations and adoption of regulations for Neutral Sulfite Semi-Chemical Pulp Mills

PURPOSE:

Revisions of the Kraft Pulp Mill Regulations are required to comply with EPA requirements, for the control of Total Reduced Sulfur (TRS), daily emission standards, and correction of discrepancies and adopt new Neutral Sulfite Mill Regulations specific to that process.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)
- Authorize Rulemaking Hearing
 - Proposed Rules (Draft) Attachment A
 - Rulemaking Statements Attachment B
 - Fiscal and Economic Impact Statement Attachment B
 - Draft Public Notice Attachment C
- Adopt Rules
 - Proposed Rules (Final Recommendation) Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Public Notice Attachment
- Issue Contested Case Decision/Order
 - Proposed Order Attachment
- Other: (specify)

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DESCRIPTION OF REQUESTED ACTION:

Authorization of a public hearing to receive testimony on revision of the Kraft Mill Regulations and adoption of Neutral Sulfite Semi-Chemical (NSSC) regulations. The proposed regulations adopt daily standards in lieu of monthly standards, implement opacity standards and meet EPA TRS guidelines for Kraft Mills. The proposed NSSC regulations are required to better regulate that specific chemical pulping process.

AUTHORITY/NEED FOR ACTION:

| | | |
|-------------------------------------|--|---------------------|
| <input checked="" type="checkbox"/> | Required by Statute: <u>ORS 468.295</u> | Attachment <u>D</u> |
| | Enactment Date: <u>July 1989</u> | |
| <input type="checkbox"/> | Statutory Authority: _____ | Attachment _____ |
| <input type="checkbox"/> | Amendment of Existing Rule: _____ | Attachment _____ |
| <input type="checkbox"/> | Implement Delegated Federal Program: _____ | Attachment _____ |
| <input type="checkbox"/> | Other: _____ | Attachment _____ |
| <input type="checkbox"/> | Time Constraints: (explain) | |

DEVELOPMENTAL BACKGROUND:

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

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

Seven Kraft Mills and one Neutral Sulfite Semi-Chemical Pulp Mill will be affected. The amount that each mill will be affected will vary depending upon compliance status of each mill and whether additional control is required. Testimony received at the public hearing should define the impact to each mill.

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PROGRAM CONSIDERATIONS:

No significant impact

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Authorize public hearings to obtain testimony on the proposed draft rules in Attachment A.
2. Modify the draft rules as proposed in Attachment A and authorize public hearings.
3. Refuse request for public hearing on the proposed rule.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission authorize public hearings to gather testimony on adoption of the revised Kraft Mill Regulations and the Neutral Sulfite Semi-Chemical Regulations. Adoption of the proposed regulations are considered necessary to conform with Section 110 and 111d of the Clean Air Act and allow EPA approval of Kraft Mill Regulations and Neutral Sulfite Mill Regulations, as amendments to the State Implementation Plan.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

ISSUES FOR COMMISSION TO RESOLVE:

1. Whether existing Kraft Mill rules should be amended to correct deficiencies identified by EPA.
2. Whether to implement new rules for Neutral Sulfite Mills, to more effectively regulate emissions from the neutral sulfite industry.

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INTENDED FOLLOWUP ACTIONS:

- Public Hearing Notices in the Secretary of State's Bulletin and local newspapers.
- Notify local jurisdictions and interested parties of public hearings and comment period.
- Hold public hearing in Portland on March 26, 1989.
- Evaluate and respond to comments of industry and public.
- Incorporate comments into proposed rules, based on Department's evaluation.
- Submit final rules for adoption at the July 14, 1989, EQC meeting.

Approved:

Section: Nick Hobbs

Division: Nick Hobbs

Director: Fuller

Report Prepared By: W.J. Fuller

Phone: 229-5749

Date Prepared: February 15, 1989

WJF:ax
AX324
(2/15/89)

ATTACHMENT A

Kraft Pulp Mills

[ED. NOTE: Administrative Order DEQ 50 repealed previous rules 340-25-155 through 340-25-195 (consisting of SA 38, filed 4-4-69).]

DEFINITIONS

340-25-150

As used in these regulations, unless otherwise required by context:

- (1) "Continual Monitoring" means sampling and analysis, in a continuous or timed sequence, using techniques which will adequately reflect actual emission levels or concentrations on a continuous basis.
- (2) "Department" means the Department of Environmental Quality.
- (3) "Emission" means a release into the atmosphere of air contaminants.
- (4) "BLS" means Black Liquor Solids, dry weight.
- (5) "Kraft Mill" or "Mill" means any industrial operation which uses for a cooking liquor an alkaline sulfide solution containing sodium hydroxide and sodium sulfide in its pulping process.
- (6) "Lime Kiln" means any production device in which calcium carbonate is thermally converted to calcium oxide.
- (7) "Non-Condensibles" means gases and vapors, contaminated with TRS compounds [gases], from the digestion and multiple-effect evaporation processes of a mill [~~that are not condensed with the equipment used in said processes~~].
- (8) "Other Sources" means sources of TRS emissions in a kraft mill other than recovery furnaces and lime kilns, including but not limited to:
 - (a) Vents from knotters, brown stock washing systems, evaporators, blow tanks, smelt tanks, blow heat accumulators,

black liquor storage tanks, black liquor oxidation system, pre-steaming vessels, tall oil recovery operations;

- (b) Any operation connected with the treatment of condensate liquids within the mill; and
 - (c) Any vent which is shown to be a significant contributor of odorous gases.
- (9) "Particulate Matter" means all solid material in an emission stream ~~[which may be removed on a glass fiber filter maintained during sampling at stack temperature or above the water vapor dew point of the stack gas, whichever is greater, but not more than 202° C (400° F). The glass fiber filter to be used shall be MSA 1106BH or equivalent.]~~ as measured by EPA Method 5, or EPA Method 17 if the stack temperature is no greater than 205°C (400°F).
- (10) "Parts Per Million (ppm)" means parts of a contaminant per million parts of gas by volume on a dry-gas basis (1 ppm equals 0.0001% by volume).
- (11) "Production" means the daily ~~[average]~~ amount of air-dried unbleached kraft pulp, or equivalent, produced as determined by dividing the monthly total production by the number of days specific production equipment operates, and expressed in air-dried metric tons (admt) per day. The corresponding English unit is air-dried tons (adt) per day.
- (12) "Recovery Furnace" means the combustion device in which pulping chemicals are converted to a molten smelt and wood solids are incinerated. For these regulations, and where present, this term shall include the direct contact evaporator.

(13) "Significant Upgrading of Pollution Control Equipment" means a modification or a rebuild of an existing pollution control device for which a capital expenditure of 50 percent or more of the replacement cost of the existing device is required.

{(13)} (14) "Standard Dry Cubic Meter" means the amount of gas that would occupy a volume of one cubic meter, if the gas were free of uncombined water, at a temperature of 20° C. (68° F.) and a pressure of 760 mm of Mercury (29.92 inches of Mercury). The corresponding English unit is standard dry cubic foot. When applied to recovery furnace gases "standard dry cubic meter" requires adjustment of the gas volume to that which would result in a concentration of 8% oxygen if the oxygen concentration exceeds 8%. When applied to lime kiln gases "standard dry cubic meter" requires adjustment of the gas volume to that which would result in a concentration of 10 {percent}%; oxygen if the oxygen concentration exceeds 10%. The mill shall demonstrate that oxygen concentrations are below noted values.

{(14)} (15) "Total Reduced Sulfur (TRS)" means the sum of the sulfur compounds {in} hydrogen sulfide, methyl mercaptan{s}, dimethyl sulfide, and dimethyl disulfide, and any other organic sulfides present in an oxidation state of minus two.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77

STATEMENT OF POLICY

340-25-155

Recent technological developments have enhanced the degree of malodorous emission control possible for the kraft pulping process. While recognizing that complete malodorous and particulate emission control is not presently possible, consistent with the meteorological and geographical conditions in Oregon, it is hereby declared to be the policy of the Department to:

- (1) Require, in accordance with a specific program and time table for all sources at each operating mill, the highest and best practicable treatment and control of atmospheric emissions from kraft mills through the utilization of technically feasible equipment, devices, and procedures. Consideration will be given to the economic life of equipment, which when installed, complied with the highest and best practicable treatment requirement;
- (2) Require degrees and methods of treatment for major and minor emission points that will minimize emissions of odorous gases and eliminate ambient odor nuisances;
- (3) Require effective monitoring and reporting of emissions and reporting of other data pertinent to air quality or emissions. The Department will use these data in conjunction with ambient air data and observation of conditions in the surrounding area to develop and revise emission and ambient air standards, and to determine compliance therewith;
- (4) Encourage and assist the kraft pulping industry to conduct a research and technological development program designed to progressively reduce kraft mill emissions, in accordance with a definite program, including specified objectives and time schedules.

Stat. Auth.: ORS Ch.

Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73

OAR25155 (1/89)

HIGHEST AND BEST PRACTICABLE TREATMENT AND CONTROL REQUIRED

340-25-160

- (1) Notwithstanding the specific emission limits set forth in rule 340-25-165, in order to maintain the lowest possible emission of air contaminants, the highest and best practicable treatment and control currently available shall in every case be provided, with consideration being given to the economic life of the existing equipment.
- (2) All installed process and control equipment shall be operated at full effectiveness and efficiency at all times, such that emissions of contaminants are kept at lowest practicable levels.

Stat. Auth.: ORS Ch.

Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73

OAR25160 (1/89)

EMISSION LIMITATIONS

340-25-165

- (1) Emission of Total Reduced Sulfur (TRS):
 - (a) Recovery Furnaces:
 - (A) The emissions of TRS from each recovery furnace placed in operation before January 1, 1969, shall not exceed 10 ppm ~~{as-a-daily-arithmetic-average}~~ and 0.15 Kg ~~{S}~~/metric ton (0.30 lb~~{-S}~~/ton) of production as ~~{a monthly}~~ daily arithmetic averages;
 - (B) TRS emissions from each new recovery furnace placed in operation after January 1, 1969, and before September 25, 1976, or any recovery furnace modified significantly to expand production shall be controlled such that the emissions of TRS shall not exceed 5 ppm ~~{as-a-daily-arithmetic-average}~~ and 0.08 Kg~~{-S}~~/metric ton (0.15 lb~~{-S}~~/ton) of production as ~~{a monthly}~~ daily arithmetic averages.
 - (b) Lime kilns. Lime Kilns shall be operated and controlled such that emissions of TRS shall not exceed:
 - (A) 40 ppm and 0.10 Kg~~{-S}~~/metric ton (0.20 lb~~{-S}~~/ton) of production as monthly arithmetic averages;
 - (B) As soon as practicable, but not later than July 1, 1978, 20 ppm and 0.05 Kg~~{-S}~~/metric ton (0.10 lb~~{-S}~~/ton) of production as monthly arithmetic averages;
 - (C) As soon as practicable, but not later than July 1, 1983, 20 ppm as a daily arithmetic average and

0.05 Kg{-S}/metric ton (0.10 lb{-S}/ton) of production as a monthly arithmetic average;

- (D) 20 ppm [as-a-daily-arithmetic-average] and 0.05 Kg{S}/metric ton (0.10 lb{-S}/ton) of production as [a monthly] 12 hour arithmetic averages from each new lime kiln placed in operation or any lime kiln modified significantly to expand production. This paragraph applies to those sources where construction was initiated prior to September 25, 1976.

(c) Smelt Dissolving Tanks.

- (A) As soon as practicable, but not later than July 1, 1990, TRS emissions from each smelt dissolving tank shall not exceed 0.033 g/Kg BLS (0.066 lb/ton BLS) as a 12 hour average.

{(e)} (d) Non-Condensibles:

- (A) Non-condensibles from digesters and multiple-effect evaporators shall be continuously treated to destroy TRS gases by thermal incineration in a lime kiln or incineration device capable of subjecting the non-condensibles to a temperature of not less than 650° C. (1200° F.) for not less than 0.3 second[s;]. An alternate device shall be available in the event adequate incineration in the primary device cannot be accomplished. Venting of TRS gases during changeover shall be minimized but in no case shall the time exceed one hour.

(B) When steam- or air-stripping of condensates or other contaminated streams is practiced, the stripped gases shall be subjected to treatment in the non-condensable incineration system or otherwise given equivalent treatment.

~~{(d)}~~ (e) Other Sources:

(A) As soon as practicable, but not later than July 1, 1978, the total emission of TRS from other sources including, but not limited to, knotters and brown stock washer vents, brown stock washer filtrate tank vents, black liquor oxidation vents, and contaminated condensate stripping shall not exceed 0.10 Kg[-S]/metric ton (0.20 lb[-S]/ton) of production;

(B) Miscellaneous Sources and Practices. When it is determined that sewers, drains, and anaerobic lagoons significantly contribute to an odor problem, a program for control shall be required.

~~{(e)}~~ (f) Compliance Programs. ~~{Each mill with any sources not in compliance with the 1978 emission limits shall submit a program and schedule for achieving compliance to the Department for approval by no later than August 1, 1977. As soon as practicable, but not later than January 1, 1980, each mill with lime kiln(s) not in compliance with the 1983 limits shall submit a program and schedule for achieving compliance.}~~ Each mill with any recovery furnace or lime kiln not in compliance with the 1988 averaging period or smelt dissolving tanks not in

compliance with the July 1, 1990 limit shall submit a program and schedule for achieving compliance as soon as practicable but no later than January 1, 1990.

(2) Particulate Matter:

(a) Recovery Furnaces. The emissions of particulate matter from each recovery furnace stack shall not exceed: ~~{a monthly arithmetic average of:}~~

(A) 2.0 kilograms per metric ton (~~{four-(4)}~~) 4.0 pounds per ton) of production as a daily arithmetic average; ~~{and}~~

(B) 0.30 gram[s] per dry standard cubic meter (0.13 grain[s] per dry standard cubic foot); and

(C) Exhibit 35 percent opacity or greater based on a path length of 10 feet, if greater than 10 feet, for periods exceeding six (6) percent of the six (6) minute average opacities in a quarter (excluding periods when the facility is not operating).

(b) Lime Kilns. The emissions of particulate matter from each lime kiln stack shall not exceed ~~{a monthly arithmetic average of:}~~

(A) 0.50 kilogram per metric ton (~~{one-(1)}~~) 1.00 pound per ton) of production as a daily arithmetic average; ~~{and}~~

(B) 0.46 gram[s] per standard cubic meter (0.20 grain[s] per standard cubic foot)~~{-}~~ ; and

(C) The visible emission limitations in section 340-25-165(4).

(c) Smelt Dissolving Tanks. The emission of particulate matter from each smelt dissolving tank stack shall not exceed: ~~{a~~

monthly arithmetic average of 0.25 Kg/metric ton (one-half (1/2) pound per ton of production).]

(A) A daily arithmetic average of 0.25 kilogram per metric ton (0.50 pound per ton) of production; and

(B) The visible emission limitations in section 340-25-165(4).

(d) Replacement or Significant Upgrading of existing particulate pollution control equipment after July 1, 1988 shall result in more restrictive standards as follows:

(A) Recovery Furnaces. The emission of particulate matter from each affected recovery furnace stack shall not exceed 0.67 kilogram per metric ton (1.35 pounds per ton) of production as a daily arithmetic average and 0.10 gram per dry standard cubic meter (0.044 grain per dry standard cubic foot).

(B) Lime Kilns. The emission of particulate matter from each affected lime kiln stack shall not exceed 0.17 kilogram per metric ton (0.34 pound per ton) of production as a daily arithmetic average and 0.15 gram per dry standard cubic meter (0.067 grain per dry standard cubic foot) when burning gaseous fossil fuel; or 0.33 kilogram per metric ton (0.65 pound per ton) of production as a daily arithmetic average and 0.30 gram per dry standard cubic meter (0.13 grain per dry standard cubic foot) when burning liquid fossil fuel.

(C) Smelt Dissolving Tanks. The emissions of particulate matter from each smelt dissolving tank vent stack shall

not exceed 0.15 kilogram per metric ton (0.30 pound per ton) of production as a daily arithmetic average.

(3) Sulfur Dioxide (SO₂). Emissions of sulfur dioxide from each recovery furnace stack shall not exceed a daily arithmetic average of 300 ppm on a dry-gas basis except during start-up and shut-down periods.

(4) ~~[New-Facility-Compliance.-As-soon-as-practicable,-but-not-later than-within-180-days-of-the-start-up-of-a-new-kraft-mill-or-of-any new-or-modified-facility-having-emissions-limited-by-these regulations,-that-facility-shall-be-operated,-controlled,-or limited-to-comply-with-the-applicable-provisions-of-these regulations-and-the-mill-shall-conduct-source-sampling-or monitoring-as-appropriate-to-demonstrate-compliance-]~~ All kraft mill sources with the exception of recovery furnaces shall not exhibit an opacity equal to or greater than 20 percent for a period exceeding three (3) minutes in any one (1) hour.

(5) New Source Performance Standards

(a) New or significantly modified sources that commenced construction after September 24, 1976 are subject to New Source Performance Standards, see section 340-25-630.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77

OAR25165 (2/89)

MORE RESTRICTIVE EMISSION LIMITS

340-25-170

The Department may establish more restrictive emission limits than the numerical emission standards contained in rule 340-25-165 and maximum allowable daily mill site emission limits in kilograms per day for an individual mill upon a finding by the Department ~~{Commission}~~ that: ~~{the individual mill is located or is proposed to be located in a special problem area or an area where ambient air standards are exceeded or are projected to be exceeded.}~~

- (1) The individual mill is located or is proposed to be located in a special problem area or an area where ambient air standards are exceeded or are projected to be exceeded; or
- (2) When an odor or nuisance problem has been documented at any mill the TRS emission limits may be reduced below the regulatory limits.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77

OAR25170 (1/89)

PLANS AND SPECIFICATIONS

340-25-175

Prior to construction of new kraft mills or modification of facilities affecting emissions at existing kraft mills, complete and detailed engineering plans and specifications for air pollution control devices and facilities and such other data as may be required to evaluate projected emissions and potential effects on air quality shall be submitted to and approved by the Department. All construction shall be in accordance with plans as approved in writing by the Department.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 173, f. & ef. 6-10-77

OAR25175 (1/89)

MONITORING

340-25-180

- (1) General:
 - (a) The details of the monitoring program for each mill shall be submitted to and approved by the Department. This submittal shall include diagrams and descriptions of all monitoring systems, monitoring frequencies, calibration schedules, descriptions of all sampling sites, data reporting formats and duration of maintenance of all data and reports. Any changes that are subsequently made in the approved monitoring program shall be submitted in writing to the Department for review and approved in writing prior to change;
 - (b) All records associated with the approved monitoring program including, but not limited to, original data sheets, charts, calculations, calibration data, production records and final reports shall be maintained for a continuous period of at least 365 days and shall be furnished to the Department upon request.
- (2) Total Reduced Sulfur (TRS). Each mill shall continually monitor TRS in accordance with the following:
 - (a) The monitoring equipment shall determine compliance with the emission limits and reporting requirements established by these regulations, and shall continually sample and record concentrations of TRS;
 - (b) The sources monitored shall include, but are not limited to, the recovery furnace stacks and the lime kiln stacks;

(c) At least [~~one~~] once per year, vents from other sources as required in subsection 340-25-165(1) [~~(d)~~](e), Other Sources, shall be sampled to demonstrate the representativeness of the emissions of TRS and the results shall be reported to the Department.

(3) [~~(a)~~] Particulate Matter

(a) [~~Particulate-Matter--~~] Each mill shall sample the recovery furnace(s), lime kiln(s) and smelt dissolving tank(s) for particulate emissions with:

(A) The sampling method; and

(B) The analytical method approved in writing by the Department.

(b) Each mill shall provide continual monitoring of opacity of emissions discharged to the atmosphere from [~~the~~] each recovery furnace or particulate matter from [~~the~~] each recovery furnace [~~(s)~~] [~~in-a-manner~~] using an alternate method approved in writing by the Department.

(c) Recovery furnace particulate source tests shall be performed quarterly except that when the preceding six (6) samples were less than 0.097 gr/dscf the sampling frequency may be semi annual.

(4) Sulfur Dioxide (SO₂). Representative sulfur dioxide emissions from the recovery furnace(s) shall be determined at least once each month.

(5) Combined Monitoring. The Department may allow the monitoring of a combination of more than one emission stream if each individual emission stream has been demonstrated to be in compliance with all

the emission limits of rule 340-25-165. The emission limits for the combined emission stream shall be established by the Department.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77

OAR25180 (2/89)

REPORTING

340-25-185

Unless otherwise authorized or required by permit, data shall be reported by each mill for each calendar month by the fifteenth day of the subsequent calendar month as follows:

- (1) Applicable daily or 12-hour average emissions of TRS gases expressed in parts per million of H₂S on a dry gas basis with oxygen concentrations, if oxygen corrections are required, for each source included in the approved monitoring program;
- (2) [~~Monthly~~] Daily average emissions of TRS gases in kilograms of total reduced sulfur per metric ton of pulp processed, expressed as H₂S, for each source included in the approved monitoring program;
- (3) [~~Monthly~~] Daily average emission of SO₂ based on all samples collected in any one day from the recovery furnace(s), expressed as ppm, dry basis;
- (4) [~~Monthly - average - emission - of - particulates - in - grams - per - standard - cubic - meter; - and - kilograms - per - metric - ton - of - pulp - produced - based - upon - the - sampling - conducted - in - accordance - with - the - approved - monitoring - program;~~] All daily average opacities for each recovery furnace where the utilization of transmissometers for the measurement of opacity is used;
- (5) [~~Average - monthly - equivalent - kraft - pulp - production;~~] All 6-minute average opacities that exceed 35 percent.
- (6) [~~Average - daily - and - the - value - of - the - maximum - hourly - opacity; - and/or - the - average - daily - and - the - value - of - the - maximum - hourly - particulate - emissions - in - grams - per - standard - cubic - meter - for - each - recovery~~

~~furnace stack on a daily basis;~~ Daily average kilograms of particulate per metric ton of pulp produced for each recovery furnace where the utilization of transmissometers for the measurement of opacity is not feasible and the mass emission rate is determined based upon alternative sampling conducted in accordance with the approved monitoring programs.

- (7) The results of each recovery furnace particulate source test in grams per dry standard cubic meter and for the same source test period the ~~continual~~ hourly average opacity or the particulate monitoring record obtained in accordance with the approved ~~continual~~ alternate monitoring program required in section 340-25-180(3).
- (8) Unless otherwise approved in writing, ~~the cumulative number of hourly averages each day that the recovery furnace particulate and TRS, and lime kiln TRS emissions exceed the numerical regulatory or permit limits;~~ all periods of non-condensable gas bypass shall be reported.
- (9) Upset conditions shall be reported in accordance with section 340-25-190(3);
- (10) Each kraft mill shall furnish, upon request of the Department, such other pertinent data as the Department may require to evaluate the mill's emission control program.
- (11) Monitoring data reported shall reflect actual observed levels corrected for oxygen, if required, and analyzer calibration.
- (12) Oxygen concentrations used to correct pollutant data shall reflect oxygen concentrations at the point of measurement of pollutants.

(13) The Department shall be notified at least ten (10) days in advance of all scheduled reference method testing including all scheduled changes.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77

OAR25185 (2/89)

UPSET CONDITIONS

340-25-190

- (1) Each mill shall immediately report abnormal mill operations including control and process equipment maintenance, or breakdowns which result in violations of regulatory or air contaminant discharge permit limits. The mill shall also take immediate corrective action to reduce emission levels to regulatory or permit levels.
- (2) Significant upsets shall be reported in writing with an accompanying report on measures taken or to be taken to correct the condition and prevent its reoccurrence.
- (3) Each mill shall report the cumulative duration in hours each month of the upsets reported in section (1) of this rule and classified as to:
 - (a) Recovery Furnace:
 - (A) TRS;
 - (B) Particulate.
 - (b) Lime Kiln:
 - (A) TRS;
 - (B) Particulate.
 - (c) Smelt Tank Particulate.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 50, f. 2-9-73, ef. 3-1-73; DEQ 137, f. & ef. 6-10-77

OAR25190 (1/89)

OTHER ESTABLISHED AIR QUALITY LIMITATIONS

340-25-195 [DEQ 50, f. 2-9-73, ef. 3-1-73;

Repealed by DEQ 137, f. & ef. 6-10-77]

OAR25195 (1/89)

PUBLIC HEARING

340-25-200 [DEQ 50, f. 2-9-73, ef. 3-1-73;

Repealed by DEQ 137, f. & ef. 6-10-77]

OAR25200 (1/89)

CHRONIC UPSET CONDITIONS

340-25-205

If the Department determines that an upset condition is chronic and correctable by installing new or modified process or control procedures or equipment, a program and schedule to effectively eliminate the deficiencies causing the upset conditions shall be submitted. Such reoccurring upset conditions causing emissions in excess of applicable limits may be exempted from rules 340-21-065 and 340-21-070 through 340-21-075 and may be subject to civil penalty or other appropriate action.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 50, f. 2-9-73, ef 3-1-73

OAR25205 (1/89)

NEUTRAL SULFITE SEMI-CHEMICAL (NSSC) PULP MILLS

Definitions

340-25-220

As used in these regulations, unless otherwise required by context:

- (1) "Continual Monitoring" means sampling and analysis, in a continuous or timed sequence, using techniques which will adequately reflect actual emission levels or concentrations on a continuous basis.
- (2) "Department" means the Department of Environmental Quality.
- (3) "Emission" means a release into the atmosphere of air containments.
- (4) "BLS" means black liquor solids, dry weight.
- (5) "Neutral Sulfite Semi-Chemical (NSSC) Pulp Mill" means any industrial operation which uses for cooking, a liquor prepared from a sodium carbonate solution and sulfur dioxide at a neutral PH, range 6-8.
- (6) "Particulate Matter" means all solid material in an emission stream as measured by EPA Method 5, if the stack temperature is no greater than 205°C (400°F).
- (7) "Parts per Million (ppm)" means parts of a contaminant per million parts of gas by volume on a dry-gas basis (one ppm equals 0.0001% by volume).
- (8) "Production" means the daily average amount of virgin air-dried unbleached NSSC pulp, or equivalent, produced as determined by dividing the monthly total production by the number of days

specific production equipment operates, and expressed in air-dried metric tons (ADMT) per day. The corresponding English unit is air-dried tons (ADT) per day.

- (9) "Spent Liquor Incinerator" means the combustion device in which pulping chemicals are subjected to high temperature to evaporate the water, incinerate organics and reclaim the sodium sulfate (saltcake) and sodium carbonate.
- (10) "Acid Absorption Tower" means the device where the sodium carbonate and sulfur dioxide react to form a sodium sulfite solution prior to use as the cooking liquor.
- (11) "Standard Dry Cubic Meter" means the amount of gas that would occupy a volume of one cubic meter, if the gas were free of uncombined water, at a temperature of 20°C.(68°F.) and a pressure of 760 mm of mercury.
- (12) "Total Reduced Sulfur (TRS)" means the sum of the sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide, and any other organic sulfides present in an oxidation state of minus two.

Highest and Best Practicable Treatment and Control Required

340-25-222

- (1) Notwithstanding the specific emission limits set forth in rule 340-25-224, in order to maintain the lowest possible emission of air contaminants, the highest and best practicable treatment and control currently available shall in every case be provided, with consideration being given to the economic life of the existing equipment.

- (2) All installed process and control equipment shall be operated at full effectiveness and efficiency at all times, such that emissions of contaminants are kept at lowest practicable levels.

OAR25-222(2-2-89)

Emission Limitations

340-25-224

(1). Emission of Total Reduced Sulfur (TRS):

(a) Spent Liquor Incinerator. The emissions of TRS from any spent liquor incinerator stack shall not exceed 10 ppm and 0.07 g/kg BLS (0.14 lb/ton BLS) as daily arithmetic averages.

(2) Particulate Matter:

(a) Spent Liquor Incinerator. The emissions of particulate matter from any spent liquor incinerator shall not exceed:

(A) 3.6 g/kg BLS (7.2 lb/ton BLS) as a daily arithmetic average;

and

(B) Exhibit an opacity equal to or greater than 35 percent for a period exceeding 3 minutes in any one hour.

(b) Acid Absorption Tower. Visible emissions shall not exceed the limitations in section 340-25-224 (4).

(3) Sulfur Dioxide (SO₂):

(a) Spent Liquor Incinerator. The emissions of sulfur dioxide from each spent liquor incinerator stack shall not exceed a daily arithmetic average of 10 ppm except during start-up and shut-down periods.

(b) Acid Absorption Tower: The emissions of sulfur dioxide from the acid absorption tower stack shall not exceed 20ppm as a daily arithmetic average.

(4) All NSSC sources with the exception of spent liquor incinerators shall not exhibit an opacity equal to or greater than 20 percent for a period exceeding three (3) minutes in any one hour.

More Restrictive Emission Limits

340-25-226 The Department may establish more restrictive emission limits than the numerical emission standards contained in rule 340-25-224 and maximum allowable daily mill site emission limits in kilograms per day for an individual mill upon a finding by the Department that:

- (1) The individual mill is located or is proposed to be located in a special problem area or an area where ambient air standards are exceeded or are projected to be exceeded; or
- (2) When an odor or nuisance problem has been documented at any mill the TRS emission limits may be reduced below the regulatory limits.

OAR25-226(2-2-89)

Plans and Specifications

340-25-228

Prior to construction of new neutral sulfite semi-chemical (NSSC) pulp mills or modification of facilities affecting emissions at existing NSSC mills, complete and detailed engineering plans and specifications for air pollution control devices and facilities and such data as may be required to evaluate projected emissions and potential effects on air quality shall be submitted to and approved by the Department. All construction shall be in accordance with plans as approved in writing by the Department.

OAR25-228(2-2-89)

Monitoring

340-25-230 (1) General

(a) The details of the monitoring program for each mill shall be submitted to and approved by the Department. This submittal shall include diagrams and descriptions of all monitoring systems, monitoring frequencies, calibration schedules, descriptions of all sampling sites, data reporting formats and duration of maintenance of all data and reports. Any changes that are subsequently made in the approved monitoring program shall be submitted in writing to the Department for review and approved in writing prior to change.

(b) All records associated with the approved monitoring program including, but not limited to, original data sheets, charts, calculations, calibration data, production records and final reports shall be maintained for a period of at least one year and shall be furnished to the Department upon request.

(2)(a) Total Reduced Sulfur (TRS). Each mill shall sample the spent liquor incinerator for TRS emissions with:

(A) The sampling method; and

(B) The analytical method approved in writing by the Department.

(b) Spent liquor incinerator TRS source tests shall be performed quarterly except when the preceding six (6) samples demonstrated that the concentrations were less than 7.5 ppm the sampling frequency may be semi-annual.

(c) Flow rate measurements used to determine TRS mass emission rates shall be corrected for cyclonic flow, where applicable.

(3)(a) Particulate Matter. Each mill shall sample the spent liquor incinerator for particulate emissions with:

(A) The sampling method; and

(B) The analytical method approved in writing by the Department.

(b) Spent liquor incinerator particulate source tests shall be performed quarterly except when the preceding six (6) samples demonstrated that the emissions rates were less than 0.10 lb/ton BLS, the sampling frequency may be semi annual. All sampling data shall be corrected for cyclonic flow, where applicable.

(4)(a) Sulfur Dioxide (SO₂). Representative sulfur dioxide emissions from spent liquor incinerators and from the acid absorption towers shall be determined at least once every six (6) months with:

(A) The sampling method; and

(B) The analytical method approved in writing by the Department.

OAR25-230(2-2-89)

Reporting

340-25-232

Unless otherwise authorized by permit, data shall be reported by each mill for each sampling period by the fifteenth day of the first month following the applicable sampling period as follows:

- (1) Daily average emissions of TRS gases in grams of total reduced sulfur per kilogram of black liquor solids, expressed as H₂S based on all samples collected in any one day from the spent liquor incinerator.
- (2) Daily average emissions of particulate in grams per kilogram of black liquor solids based on all samples collected in any one day from the spent liquor incinerator.
- (3) Daily average concentration of sulfur dioxide in ppm for each source included in the approved monitoring program based on all samples collected in any one day.
- (4) Daily average amount of virgin air-dried unbleached NSSC pulp produced expressed as air dried metric tons per day (ADMT/day).
- (5) Daily average amount of black liquor solids, dry weight, fired in the spent liquor incinerator during periods of operation.
- (6) Upset conditions shall be reported in accordance with section, 340-25-234 (3).

- (7) Each mill shall furnish, upon request of the Department, such other pertinent data as the Department may require to evaluate the mills emission control program.

- (8) The Department shall be notified at least ten (10) days in advance of all scheduled reference method testing including all scheduled changes.

- (9) Data reported shall reflect actual observed levels.

OAR25-232(2-2-89)

Upset Conditions

340-25-234

(1) Each mill shall immediately report abnormal mill operations including control and process equipment maintenance, or breakdowns which result in violation of regulatory or air containment discharge permit limits. The mill shall also take immediate corrective action to reduce emission levels to regulatory or permit levels.

(2) Significant upsets shall be reported in writing with an accompanying report on measures taken or to be taken to correct the condition and prevent its reoccurrence

(3) Each mill shall report the cumulative duration in hours each month of the upsets reported in section (1) of this rule and classified as to:

(a) Spent Liquor Incinerator

(A) TRS

(B) Particulate

(C) SO₂

(b) Acid Absorption Tower

(A) SO₂

(B) Opacity

OAR25-234(2-2-89)

Chronic Upset Conditions

340-25-236

If the Department determines that an upset condition is chronic and correctable by installing new or modified process or control procedures or equipment, a program and schedule to effectively eliminate the deficiencies causing the upset conditions shall be submitted. Such reoccurring upset conditions causing emissions in excess of applicable limits may be exempted from rules 340-21-065 and 340-21-070 through 340-21-075 and may be subject to civil penalty or other appropriate action.

OAR25-236(2-2-89)

ATTACHMENT B

RULEMAKING STATEMENTS

for
Kraft Pulp Mills OAR 340-25-150
through 340-25-205 and Neutral
Sulfite Semi-Chemical (NSSC) Pulp Mills
OAR 340-25-220 through OAR 340-25-236

Pursuant to ORS 183.335, these statements provide information on the intended action to amend a rule.

STATEMENT OF NEED:

Legal Authority

This proposal amends OAR 340-25-150 through 340-25-205 and adds OAR 340-25-220 through 340-25-236.

It is proposed under authority of ORS 468.295 Air Purity Standards;

Need for the Rule

1. To comply with EPA guidelines on the control of TRS emissions from Kraft mills, EPA regulations requiring opacity standards and EPA requirements limiting emission standards to 24-hour averaging periods or 12-hour averaging periods.
2. To add regulations specific for the Neutral Sulfite Semi-Chemical Pulp mills which contain opacity standards, 24-hour averaging periods and emission standards consistent with the pulping process.

Principal Documents Relied Upon

1. EPA 450/2-78-003b Kraft Pulping, Control of TRS Emissions from existing Mills.
2. Kraft Mill and Neutral Sulfite Mill monitoring data.
3. Section 110 and 111 of the Clean Air Act.

FISCAL AND ECONOMIC IMPACT STATEMENT:

These amendments will result in varying degrees of impact on the Kraft Pulp Mills, depending upon additional control requirements and control methods. There is little or no impact on the Neutral Sulfite Mills as a result of the proposed regulation.

LAND USE CONSISTENCY STATEMENT:

The proposed rule revision OAR 340-25-150 through 340-25-205 Kraft Pulp Mills and the addition of OAR 340-25-220 through 340-25-236 does not affect land use and is consistent with the statewide planning goals.

With regard to Goal 6 (air, water, and land resources quality) the rules are designed to enhance and preserve air quality in the affected area and are considered consistent with the goal.

Goal 11 (public facilities and services) is deemed unaffected by the rule. The rule does not appear to conflict with other goals.

Public comment on any land use issue involved is welcome and may be submitted in the same fashions as are indicated for testimony in this notice.

It is requested that local, state, and federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and with Statewide Planning Goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any apparent conflict brought to our attention by local, state, or federal authorities.

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

NOTICE OF PUBLIC HEARING

Hearing Date: April 26, 1989
Date Prepared: February 2, 1989
Comments Due: May 3, 1989

**WHO IS
AFFECTED:**

Seven Kraft pulp mills, one of which also operates a neutral sulfite semi-chemical pulp production line and one neutral sulfite semi chemical pulp mill.

**WHAT IS
PROPOSED:**

The Department of Environmental Quality is proposing to amend OAR 340-25-150 through 340-25-205 "Kraft Pulp Mills" and to add OAR 340-25-220 through 340-25-236 "Neutral Sulfite Semi-Chemical (NSSC) Pulp Mills, as amendments to the Oregon State Implementation Plan OAR 340-20-047.

**WHAT ARE THE
HIGHLIGHTS:**

Revised Kraft mill TRS standards to conform with EPA guidelines for existing Kraft Mills, addition of opacity standards, implementation of daily averaging in lieu of monthly averaging for particulate and SO₂ standards and the addition of regulations specifically for the neutral sulfite semi-chemical pulp mills.

**HOW TO
COMMENT:**

Copies of the complete proposed rule package may be obtained from the Air Quality Division in Portland 811 S.W. Sixth Avenue or the regional office nearest you. For further information contact William J. Fuller at 229-5749.

A public hearing will be held before a hearings officer at:

9:00 am
April 26, 1989
811 SW 6th Avenue, Room 4A
Portland, OR 97204

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ, but must be received by no later than May 3, 1989.



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 IS THE
NEXT STEP:

After public hearing the Environmental Quality Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted rules will be submitted to the U. S. Environmental Protection Agency as part of the State Clean Air Act Implementation Plan. The Commission's deliberation should come in July 1989 as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need, Fiscal and Economic Impact Statement, and Land Use Consistency Statement are attached to this notice.

AX322:x (2/89)

(1) Agricultural operations and the growing or harvesting of crops and the raising of fowls or animals, except field burning which shall be subject to regulation pursuant to ORS 468.140, 468.150, 468.455 to 468.480 and this section;

(2) Use of equipment in agricultural operations in the growth of crops or the raising of fowls or animals, except field burning which shall be subject to regulation pursuant to ORS 468.140, 468.150, 468.455 to 468.480 and this section;

(3) Barbecue equipment used in connection with any residence;

(4) Agricultural land clearing operations or land grading;

(5) Heating equipment in or used in connection with residences used exclusively as dwellings for not more than four families, except woodstoves which shall be subject to regulation under this section and ORS 468.630 to 468.655;

(6) Fires set or permitted by any public agency when such fire is set or permitted in the performance of its official duty for the purpose of weed abatement, prevention or elimination of a fire hazard, or instruction of employes in the methods of fire fighting, which in the opinion of the agency is necessary;

(7) Fires set pursuant to permit for the purpose of instruction of employes of private industrial concerns in methods of fire fighting, or for civil defense instruction; or

(8) The propagation and raising of nursery stock, except boilers used in connection with the propagation and raising of nursery stock. [Formerly 449.775; 1975 c.559 §3; 1983 c.333 §2; 1983 c.730 §3]

468.295 Air purity standards; air quality standards. (1) By rule the commission may establish areas of the state and prescribe the degree of air pollution or air contamination that may be permitted therein, as air purity standards for such areas.

(2) In determining air purity standards, the commission shall consider the following factors:

(a) The quality or characteristics of air contaminants or the duration of their presence in the atmosphere which may cause air pollution in the particular area of the state;

(b) Existing physical conditions and topography;

(c) Prevailing wind directions and velocities;

(d) Temperatures and temperature inversion periods, humidity, and other atmospheric conditions;

(e) Possible chemical reactions between air contaminants or between such air contaminants and air gases, moisture or sunlight;

(f) The predominant character of development of the area of the state, such as residential, highly developed industrial area, commercial or other characteristics;

(g) Availability of air-cleaning devices;

(h) Economic feasibility of air-cleaning devices;

(i) Effect on normal human health of particular air contaminants;

(j) Effect on efficiency of industrial operation resulting from use of air-cleaning devices;

(k) Extent of danger to property in the area reasonably to be expected from any particular air contaminants;

(L) Interference with reasonable enjoyment of life by persons in the area which can reasonably be expected to be affected by the air contaminants;

(m) The volume of air contaminants emitted from a particular class of air contamination source;

(n) The economic and industrial development of the state and continuance of public enjoyment of the state's natural resources; and

(o) Other factors which the commission may find applicable.

(3) The commission may establish air quality standards including emission standards for the entire state or an area of the state. The standards shall set forth the maximum amount of air pollution permissible in various categories of air contaminants and may differentiate between different areas of the state, different air contaminants and different air contamination sources or classes thereof. [Formerly 449.785]

468.300 When liability for violation not applicable. The several liabilities which may be imposed 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 this chapter upon persons violating the provisions of any rule, standard or order of the commission pertaining to air pollution shall not be so construed as to include any violation which was caused by an act of God, war, strife, riot or other condition as to which any negligence or wilful misconduct on the part of such person was not the proximate cause. [Formerly 449.825]

468.305 General comprehensive plan. Subject to policy direction by the commission, the department shall prepare and develop a general comprehensive plan for the control or abatement of existing air pollution and for the control or prevention of new air pollution in any area of

ATTACHMENT E

Department Report

Background Information:

The Department has concluded that the existing Kraft Mill regulations are not approvable by EPA in their present form. This became apparent after a review of the current regulations by the EPA and subsequent discussion between the agencies. The EPA, however, has not formally disapproved the regulations.

The Department is proposing to amend the Kraft Mill regulations to correct these deficiencies. The revisions include the following:

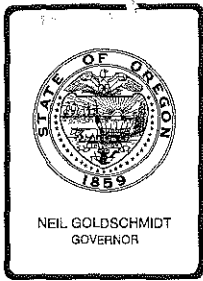
1. Adoption of daily averaging in lieu of monthly averaging for TRS, SO₂ and particulate emissions from recovery furnaces. EPA has indicated that monthly averaging is not adequate to protect the environment and therefore not approvable.
2. Implement the NSPS opacity standard (35%) for existing recovery furnaces. EPA regulations require visible emission limitations or other means to ensure continual compliance to be approvable.
3. Implement a 12-hour averaging period in lieu of daily averaging for lime kiln TRS emissions. EPA regulations require TRS emission limitations to be as stringent or more stringent than the proposed standards in the EPA guidelines document, "control of TRS emissions from existing mills", the proposed standard meets this criteria.
4. Revise the lime kiln particulate standard to reflect daily averaging in lieu of monthly averaging. This change is required to protect the environment on a daily basis and to obtain EPA approval.
5. Implement a 20% opacity standard for lime kilns and smelt dissolving tank vents. EPA regulations require visible emission limitations or other means to ensure continual compliance to be approvable.
6. Adopt the NSPS standard of 0.033 g/kg of black liquor solids as a 12-hour average for TRS emissions from smelt dissolving tank vents. This standard is identical to the proposed standard, in the EPA guidelines document.
7. Revise the smelt dissolving tank vent particulate standard to reflect daily averaging in lieu of monthly averaging. This is required to protect the environment on a daily basis and to obtain EPA approval.

These changes have been discussed with industry representatives who acknowledge that changes are required to circumvent disapproval by EPA of the Kraft Mill regulations. Industry is currently studying the impact of the proposed regulations on the various mills. It is anticipated that the impact on each mill will become known during the public hearing process.

Neutral Sulfite Mills

The implementation of regulations for neutral sulfite mills is desirable to more effectively control the industry. At the present time the sources are regulated under the sulfite regulations, a different chemical pulping process. To more adequately address emissions from the neutral sulfite industry a regulation tailored to their specific process is required. These changes will also address EPA concerns regarding daily averaging in lieu of monthly averaging and implementation of opacity standards.

The proposed regulations for the Neutral Sulfite Semi-Chemical Pulp mills was developed jointly with representatives of the industry. The proposed regulations are more stringent than existing standards, however, they do not present any problem to the industry.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: 3/3/89
Agenda Item: H
Division: HSW
Section: Haz. Waste

SUBJECT:

Request for authorization to conduct a public hearing, (OAR) Chapter 340, Divisions 100, 101, 102, 104, and 105, to incorporate by reference certain federal hazardous waste regulations.

PURPOSE:

This is the fourth in a series of proposed rulemakings to adopt by reference federal regulations in order to maintain authorization from EPA to implement the base RCRA program and to implement HSWA regulations in lieu of EPA. Previous rulemakings occurred May 29, 1987, December 11, 1987, and July 8, 1988.

ACTION REQUESTED:

- | | | |
|-------------------------------------|---------------------------------------|------------------------|
| <input checked="" type="checkbox"/> | Authorize Rulemaking Hearing | |
| | Proposed Rules (Draft) | Attachment <u>A</u> |
| | Rulemaking Statements | Attachment <u>B</u> |
| | Fiscal and Economic Impact Statement | Attachment <u>B</u> |
| | Draft Public Notice | Attachment <u>C</u> |
| <input type="checkbox"/> | Adopt Rules | |
| | Proposed Rules (Final Recommendation) | Attachment <u> </u> |
| | Rulemaking Statements | Attachment <u> </u> |
| | Fiscal and Economic Impact Statement | Attachment <u> </u> |
| | Public Notice | Attachment <u> </u> |
| <input type="checkbox"/> | Issue Contested Case Decision/Order | |
| | Proposed Order | Attachment <u> </u> |
| <input type="checkbox"/> | Other: (specify) | |

DESCRIPTION OF REQUESTED ACTION:

Authorization is requested to conduct a public rulemaking hearing on proposed amendments to the Department's hazardous waste regulations, Chapter 340, Divisions 100, 101, 102, 104, and 105.

These regulations and amendments were promulgated under the Resource Conservation and Recovery Act (RCRA) and the Hazardous and Solid Waste Amendments of 1984 (HSWA). In 1976 Congress enacted RCRA. RCRA ordered the Environmental Protection Agency (EPA) to develop a national program for managing hazardous waste from "cradle to grave." RCRA also provided a mechanism for the federal government to authorize a state to implement the national hazardous waste management program. On January 31, 1986, EPA authorized the State of Oregon to implement the base RCRA program in lieu of EPA. The base program consists of those parts of the program that were in effect prior to the passage of HSWA in 1984.

The rule adoptions being proposed are for both parts of the program. One group relates to the currently authorized base RCRA program. The other group relates to the HSWA requirements for which the state is and will be seeking authorization during the next four years.

Some of the key rules being proposed for adoption are:

- o Rules restricting the land disposal of certain hazardous wastes unless they are first treated to reduce toxicity prior to land disposal.
- o Amendments streamlining the process for permittees to modify their permits.
- o Rules allowing treatability studies to be performed on hazardous wastes without requiring a treatment permit.

AUTHORITY/NEED FOR ACTION:

| | |
|--|----------------|
| ___ Required by Statute: _____ | Attachment ___ |
| Enactment Date: _____ | |
| <u>X</u> Statutory Authority: <u>ORS 466.020</u> | |
| ___ Amendment of Existing Rule: _____ | Attachment ___ |
| ___ Implement Delegated Federal Program: _____ | Attachment ___ |

Other: Attachment

Time Constraints: (explain) All Federal regulations for the base RCRA program promulgated through December 1987 must be adopted by the Department no later than July 1, 1989 in order to maintain an authorized base program in Oregon. These regulations are not in effect in Oregon until they are adopted by the Department. There is no immediate time constraint on adopting the proposed HSWA regulations, although the Department's HSWA authorization application needs to be submitted to EPA by 1991 for all HSWA regulations promulgated between 1984 and 1988.

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: Attachment

Supplemental Background Information: Background report and summary of proposed rules, amendments and corrections. Attachment D

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The regulated community affected by these rules are those who generate, treat, store and dispose of hazardous waste.

Adopting the new permit modification rules for treatment, storage and disposal facilities (TSD) will streamline the joint permitting process with the EPA. Treatment, storage and disposal facilities are currently faced with two sets of permit modification rules to follow. Adopting the new permit modification rules will eliminate that inconsistency. Chem-Security Systems, Inc. (CSSI) is the only facility currently affected by these rules because it is the only facility in Oregon with a RCRA final status permit at this time. There will be additional permitted facilities in the future that this rule will affect.

Currently, the Department requires small quantity generators (SQG) to submit a full exception report to the Department if they do not receive confirmation from the TSD facility of receipt of their hazardous waste. There is a new federal rule (52 FR 35894, 9/23/87) that does not require SQGs to submit a report to the Department.

The Department elects to retain its more stringent rule because it is important to regulate the management of hazardous waste from "cradle to grave." By filing an exception report with the Department, the generator is alerting the Department that the wastes may not have been received by the TSD. The Department needs to know this information in order to determine if the wastes have been properly handled.

PROGRAM CONSIDERATIONS:

Adopting the land disposal restriction requirements will increase the time it takes to conduct and document an inspection. An increase in inspection time may increase, to a limited extent, the resources required to do generator inspections or reduce the number of inspections completed. The Hazardous Waste Program will need to conduct an internal training program to ensure that appropriate staff are trained to be able to implement the new requirements.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. To maintain authorization, the Department is required to adopt certain regulations within specified time frames. The base RCRA regulations promulgated by EPA through December 30, 1987 must be adopted by July 1, 1989, or the Department risks losing authorization of the base RCRA program. There is no immediate time frame in which the Department must adopt the HSWA regulations. However, the Department is required to submit to EPA a HSWA authorization application by 1991 and HSWA regulations will need to be adopted prior to that date.

2. Adopting the base RCRA regulations would maintain authorization. Not adopting the HSWA regulations will not affect authorization at this time. However, the Department's policy has been to seek authorization to implement federal hazardous waste regulations in Oregon as promptly as possible. It is important for the Department to implement these requirements in order to demonstrate capability for authorization. It also is important that we become authorized as soon as practicable in order to provide a consistent regulatory presence for the regulated community in Oregon.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that Alternative 1 be chosen in order to remain authorized for the base RCRA program and to seek authorization for the HSWA regulations.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Legislative and agency policy is to seek and maintain authorization for the federal hazardous waste program. It is also agency policy to implement a hazardous waste management program that is not more stringent than the federal program, except where there is a clear reason to ensure protection of public health and the environment in Oregon.

This rulemaking is necessary to meet federally mandated time frames for state adoption of federal base RCRA regulations pertaining to the authorized portions of the RCRA program.

Public review of proposed amendments before adoption meets statutory requirements.

ISSUES FOR COMMISSION TO RESOLVE:

1. The Department is proposing to maintain a more stringent requirement in Oregon related to the permit modification requirements for the transfer of a facility permit from one owner/operator to a new owner/operator.

The purpose of this more stringent requirement is to maintain consistency with the intent and language of OAR Chapter 340, Division 120 facility siting requirements. EPA permit modification regulations allow for a transfer of ownership as a Class 1 (minor) modification which does not require public review or Department review. The Department proposes to class a transfer of ownership as a Class 3 (major) modification requiring public notice and public review prior to Department approval of the transfer. Also, the potential new owner of a treatment or disposal facility will be required to satisfy the Division 120 requirements relating to owner/operator capability and compliance history.

2. Because some of the rules being proposed for adoption today are related to HSWA and authorization at a later date, the Commission could delay adoption of these rules. However, the Department recommends adoption at this time.

In order to apply for and receive authorization from EPA for HSWA requirements, the state must demonstrate capability to implement the HSWA requirements in Oregon. By having the regulatory authority to conduct a parallel program with EPA prior to

authorization, it gives the state time to develop and demonstrate this capability.

3. No significant increase in Department resources is warranted at this time in order to begin implementing the HSWA requirements.

INTENDED FOLLOWUP ACTIONS:

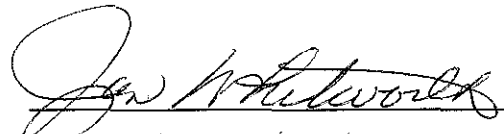


Conduct a public hearing April 19, 1989, assemble and evaluate testimony and adopt the new regulations and amendments at the June 2, 1989 Environmental Quality Commission meeting.

Approved:

Section:

Division:

Director:

Report Prepared by: Gary Calaba

Phone: 229-6534

Date Prepared: February 14, 1989

Gary Calaba
EQC3389
January 17, 1989

Before the Environmental Quality Commission of the State of Oregon

In the Matter of Amending) Proposed Amendments
OAR 340, Divisions 100, 101, 102,)
104, and 105)

Unless otherwise indicated, material enclosed in brackets [] is proposed to be deleted and material that is underlined> is proposed to be added.

1. Rule 340-100-002 is proposed to be amended as follows:

Adoption of United States Environmental Protection Agency Hazardous Waste Regulations.

340-100-002 (1) Except as otherwise modified or specified by OAR Chapter 340, Divisions 100 to 106, the rules and regulations governing the management of hazardous waste, including its generation, transportation by air or water, treatment, storage and disposal, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Parts 260 to 266, 270 and Subpart A of 124, amendments thereto promulgated prior to July 1, 1986, and amendments listed below in section (2) of this rule are adopted and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080, and 466.090 to 466.215.

(2) In addition to the regulations and amendments promulgated prior to July 1, 1986, as described in section (1) of this rule, the following amendments to Title 40 Code of Federal Regulations, Parts 260 to 266, 270 and Subpart A of 124, as published in volumes 51 and 52 of the Federal Register (FR), are adopted and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080, and 466.090 to 466.215:

(a) Amendments pertaining to liability coverage for hazardous waste management facilities, in 51 FR 25354-56 (July 11, 1986).

(b) Revised standards for hazardous waste storage and treatment tank systems, in 51 FR 25470-86 (July 14, 1986).

(c) Amendments to the rules concerning identification and listing of hazardous waste, in 51 FR 28298-310 (August 6, 1986).

(d) Technical corrections to the HSWA final codification rule, in 51 FR 28556 (August 8, 1986).

(e) Amendments to the rules concerning exports of hazardous waste, in 51 FR 28682-86 (August 8, 1986).

(f) Corrections to the revised standards for hazardous waste storage and treatment tank systems, in 51 FR 29430-31 (August 15, 1986).

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- (g) Amendments clarifying the listing for spent pickle liquor from steel finishing operations, in 51 FR 33612 (September 22, 1986).
- (h) Amendments concerning the waste minimization certification by hazardous waste generators, in 51 FR 35192-94 (October 1, 1986).
- (i) Amendments to the rules concerning the identification and listing of hazardous waste, in 51 FR 37728-29 (October 24, 1986).
- (j) Amendments to the interim status standards for hazardous waste surface impoundments, in 52 FR 8708-9 (March 19, 1987).
- (k) Technical corrections to the rules concerning burning of hazardous waste fuel and used oil fuel in boilers and industrial furnaces, in 52 FR 11821-22 (April 13, 1987).
- (l) Technical corrections to the definition of solid waste, in 52 FR 21306-7 (June 5, 1987).
- (m) Amendments to the rules concerning the development of corrective action programs for hazardous waste land disposal facilities, in 52 FR 23450 (June 22, 1987).
- (n) Correction to the amended rules concerning the development of corrective action programs for hazardous waste land disposal facilities, in 52 FR 33936 (September 9, 1987).
- (o) Amends incorporation by reference of revised manual SW-846, in 52 FR 8072 (March 16, 1987).
- (p) Amendment to rules concerning groundwater monitoring; establishes an Appendix IX list of hazardous constituents, in 52 FR 25942 (July 9, 1987).
- (q) Identification and listing of hazardous wastes; a technical correction concerning identifying that residues in containers or liners are hazardous waste and not the containers, in 52 FR 26012 (July 10, 1987).
- (r) Amendments to the liability requirements for treatment, storage or disposal facilities; allows corporate guarantee and other financial mechanisms to cover liability in 52 FR 44314 (November 18, 1987); and 53 FR 33938 (September 1, 1988) respectively.
- (s) Establishes new standards for permitting miscellaneous hazardous waste management units, in 52 FR 46946 (December 10, 1987).
- (t) Establishes land disposal restrictions for F-listed solvents and dioxin containing wastes; prescribes treatment standards using toxicity characteristic leaching procedures (TCLP), in 51 FR 40572 (November 11, 1986).
- (u) Corrections to the November 7, 1986 regulations concerning land disposal restrictions; the addition of applicable section to both Parts 264 and 265, in 52 FR 21010 (June 4, 1987).
- (v) Amendments pertaining to the November 7, 1986 regulations concerning land disposal restrictions; rescinds non-migration petition authority and establishes "California List", in 52 FR 25760 (July 8, 1987).
- (w) Amendments to the test methods in the July 8, 1987 land disposal restrictions known as the "California List," 52 FR 41295 (October 27, 1987).
- (x) HSWA Codification Rules pertaining primarily to corrective action, in 52 FR 45788 (December 1, 1987).
- (y) Amendments pertaining to the regulations concerning treatability studies in 53 FR 27290 (July 19, 1988).

(z) Regulations prohibiting the land disposal of the "First Third" of hazardous wastes; assigns treatment standards for wastewaters and nonwastewaters, in 53 FR 31138 (August 17, 1988).

(aa) Amendments pertaining to regulations governing the modifications of hazardous waste management permits, in 53 FR 37912 (September 28, 1988).

(bb) Corrections to the September 28, 1988 regulations concerning permit modifications, in 53 FR 41649 (October 24, 1988).

(cc) Clarification of surface impoundment retrofitting requirements as they pertain to closure requirements, in 53 FR 24717 (June 30, 1988).

(dd) Amendments pertaining to groundwater monitoring and statistical evaluation procedures, in 53 FR 39720 (October 11, 1988).

(ee) Amendments pertaining to the regulations governing wastes from metal smelting operations; relists potliners and other metal wastes, in 53 FR 35412 (September 13, 1988).

(ff) Corrections to the August 15, 1986 regulations pertaining to hazardous waste storage and treatment tanks, in 53 FR 34079 (September 2, 1988).

(gg) Amendment to the September 22, 1986 rules concerning spent pickle liquor, in 52 FR 28697 (August 3, 1987).

(hh) Amendments to the rules concerning the identification and listing of hazardous waste; deletion of dextran and strontium sulfide from the list in 40 CFR 261.33(f), in 53 FR 43878 and 43884 (October 31, 1988).

(ii) Technical corrections; identification and listing of hazardous waste; 40 CFR Part 261, in 53 FR 13382 (April 22, 1988).

2. Rule 340-101-032 is proposed to be deleted as follows:

[Hazardous waste from specific sources.

340-101-032 The following hazardous wastes are added to and made a part of the list of hazardous wastes in 40 CFR 261.32:

KO88 . . . spent potliner from primary aluminum
reduction - Hazard code: R, T]

3. 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).

(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).
- (4) The wastes identified in subsections (2)(a) and (3)(a) of this rule are identified as acutely hazardous wastes (H) and are subject to the small quantity exclusion defined in 261.5(e).

(Comment: Sections (2) and (3) of this rule shall be applied to a manufacturing process waste only in the event it is not identified elsewhere in this Division, but prior to application of section (5) of this rule.)

(5)(a) A pesticide residue or pesticide manufacturing residue is a toxic hazardous waste if a representative sample of the residue exhibits a 96-hour aquatic LC₅₀ equal to or less than 250 mg/l.

(b) A pesticide residue or pesticide manufacturing residue identified in subsection (5)(a) of this rule but not in 40 CFR 261.24 or listed elsewhere in Subpart D of 40 CFR Part 261, has the Hazardous Waste Number of X001 and is added to and made a part of list of hazardous wastes in 40 CFR 261.31.

(6)(a) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates identified in subsection (6)(b) this rule are added to and made a part of the list in 40 CFR 261.33(e):

(b) P999. . . .Nerve agents (such as GB (Sarin) and VX).

4. Rule 340-101-034 is proposed to be deleted as follows:

[Basis for listing hazardous waste.

340-101-034 (1) The waste identified in section (2) of this rule is hereby added to and made a part of Appendix VII: Basis for Listing Hazardous Wastes to 40 CFR Part 261.

| | |
|------------------|-------------------------|
| (2) Hazardous | Hazardous constituents |
| <u>Waste No.</u> | <u>for which listed</u> |

K088. cyanide]

5. Rule 340-104-147 (4) is proposed to be amended as follows:

Liability requirements.

340-104-147 (1) This rule amends the requirements of 40 CFR 264.147.

(2) The phrase ". . .in one or more States" at the end of 40 CFR 264.147(a)(1)(ii) is deleted and replaced with the phrase ". . . in Oregon."

(3) The phrase ". . . in one or more states" at the end of 40 CFR

264.147(b)(1)(ii) is deleted and replaced with the phrase ". . . in Oregon."

[(4) The provisions of 40 CFR 264.147(b)(4) are deleted.]

6. Rule 340-104-314 is proposed to be deleted as follows:

[Prohibition on land disposal of ignitable wastes.

340-104-314 (1) Except as may be permitted by sections (2) and (3) of this rule or by 40 CFR 264.314(b)(1) to 264.314(b)(4) an owner or operator shall not place in a land disposal unit any liquid waste or the free-liquid portion of any liquid/solid waste mixture if such mixture contains in excess of 20% free liquid, if the waste was initially generated as a liquid or as a liquid/solid mixture and is identified as a hazardous waste only because it is listed on the basis of or meets the characteristic of ignitability (I).

(Comment: These wastes include but are not limited to those having EPA Hazardous Waste Numbers D001, F003, U001, U002, U031, U055, U056, U057, U092, U110, U112, U113, U117, U124, U125, U154, U161, U171, U186, U213 and U239.)

(2) The generator and owner or operator may apply for an exemption from section (1) of this rule for a specific waste if he can demonstrate that:

(a) The disposal will not pose a threat to public health or the environment due to the properties or quantity of the waste, characteristics of the landfill, the proposed disposal procedure and other relevant circumstances;

(b) The waste generator has taken all practicable steps to eliminate or minimize the generation of the waste and to recover, concentrate or render the waste non-hazardous; and

(c) There is no reasonably available means of beneficial use, reuse, recycle, reclamation or treatment.

(3) Upon receipt of a request for an exemption, the department shall make a tentative determination to approve or deny the request within thirty (30) days of receipt. The generator and owner or operator shall have thirty (30) days from the date of tentative denial to appeal the denial to the Department. The Department shall make a final determination within ninety (90) days of the original request if a timely appeal has been filed.

(Comment: The intention of this rule is to disallow the landfilling of solids formed by soil stabilization of liquids. This rule does not pertain to liquids which become mixed with soil or other debris as the result of a spill or to lab packs as defined in 40 CFR 264.316.)]

7. 340-105-030 is proposed to be amended as follows:

Conditions applicable to all permits.

340-105-030 (1) The phrase ". . . the appropriate Act . . ." in the second sentence of 40 CFR 270.30(a) is deleted and replaced with the phrase ". . . ORS Chapter [459] 466 and OAR Chapter 340 . . ."

[(2) The provisions of 40 CFR 270.30(1)(2)(ii)(B) are deleted.

(3)(a) The provisions of 40 CFR 270.30(1)(3) are deleted and replaced with subsection (3)(b) of this rule.

(b) Transfers. The permit is personal to the permittee and is non-transferable. A new owner or operator shall comply with the requirements of 340-105-010(2)(d)(B)(iv).]

(2)[(4)](a) The provisions of 40 CFR 270.30(1)(6)(i) preceding 270.30(1)(6)(i)(A) are deleted and replaced with subsection [(4)] (2) (b) of this rule.

(b) Immediate reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment as soon as he becomes aware of the circumstances, including:

(3)[(5)](a) The provision of 40 CFR 270.30(1)(9) is deleted and replaced with subsection [(5)] (3) (b) of this rule.

(b) Periodic report. A periodic report must be submitted covering facility activities on an appropriate schedule (see rule 340-104-075).

8. 340-105-040 is proposed to be amended as follows:

Permit transfers.

340-105-040 (1) The provisions of 40 CFR 270.40 are [deleted] amended as follows:

(a) In the first sentence in 40 CFR 270.40 (b), amend "may be made as a Class 1 modification" to "will be made as a Class 3 modification," delete the phrase "with prior written approval of the Director," and add after " 270.42" the phrase "and the requirements in OAR 340-120-010(2)(a)(A), (b)(B), (b)(C), (c), (e), (g), (h) and OAR 340-120-025 for a treatment or disposal facility. "

[(2) A permit is personal to the permittee and is non-transferrable.

(3) A new owner or operator of a facility shall comply with the requirements of 340-105-010(2)(d)(B)(iv).]

9. 340-105-041 is proposed to be amended as follows:

[Major] [m]Modifications or revocation and reissuance of permits.

340-105-041 (1) The phrase " or except when Division

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120 applies" is added to the end of and made part of the provision in 40 CFR 270.41(c). [The sentence "If cause does not exist under this Section or 40 CFR 270.41, the Director shall not modify or revoke and reissue the permit" in the first paragraph of 40 CFR 270.41 is deleted.

(2) (a) The provision of 40 CFR 270.41(a) preceding paragraph (a) (1) is deleted and replaced with subsection (2) (b) of this rule.

(b) Causes for modification or revocation and reissuance. The following are causes to modify or, alternatively, revoke and reissue a permit:

(3) (a) The provisions of 40 CFR 270.41(a) (3) are deleted and replaced with subsection (3) (b) of this rule.

(b) New regulations. The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.

(4) The provision of 40 CFR 270.41(b) (2) is deleted.]

10. 340-105-042 is proposed to be deleted as follows:

[Minor modifications of permits.

340-105-042 The provisions of 40 CFR 270.42(d) are deleted.]

ZB8227/eqc3atta

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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF AMENDING)
OAR CHAPTER 340,) STATEMENT OF NEED FOR
DIVISION 100, 101, 102, 104 and 105) RULEMAKING

STATUTORY AUTHORITY:

ORS 466.020 requires the Commission to:

- (1) Adopt rules to establish minimum requirements for the treatment storage, and disposal of hazardous wastes, minimum requirements for operation, maintenance, monitoring, reporting and supervision of treatment, storage and disposal sites, and requirements and procedures for selection of such sites.
- (2) Classify as hazardous wastes those residues resulting from any process of industry, manufacturing, trade, business or government or from the development or recovery of any natural resources, which may, because of their quantity, concentration, or physical chemical or infectious characteristics:
 - (a) Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or
 - (b) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.
- (3) Adopt rules pertaining to hearings, filing of reports, submission of plans and the issuance of licenses.
- (4) Adopt rules pertaining to generators, and to the transportation of hazardous waste by air and water.

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NEED FOR THE RULES:

The State of Oregon is currently authorized by the federal government to manage the comprehensive hazardous waste management program mandated by Congress under the Resource Conservation and Recovery Act (RCRA). In order to maintain authorization, the state must adopt new federal rules and repeal any existing state rules which are less stringent, within specified time frames. Loss of authorization would result in a federally-operated program in the state. The Oregon Legislature supports state authorization and has granted the Department and the Commission authority to take any action necessary to maintain Oregon's authorization.

PRINCIPAL DOCUMENTS RELIED UPON:

New federal hazardous waste management rules published in the Federal Register on March 16, 1987; July 9, 1987; July 10, 1987; November 18, 1987; September 1, 1988; December 10, 1987; April 22, 1988; November 7, 1986; June 4, 1987; July 8, 1987; October 27, 1987; August 17, 1988; December 1, 1987; September 28, 1988; July 19, 1988; June 30, 1988; October 11, 1988; September 13, 1988; September 2, 1988; August 3, 1987; October 31, 1988; and October 24, 1988. Existing state rules, OAR Chapter 340, Divisions 100, 101, 102, 104 and 105. These documents are available for review, during normal business hours, at the Department's office, 811 S.W. Sixth Avenue, Portland, Oregon, eighth floor.

FISCAL AND ECONOMIC IMPACT:

Today we are proposing to adopt twenty-two different federal regulations by reference. These regulations pertain to the base Resource Conservation Recovery Act (RCRA) hazardous waste program and to the program for which we will be seeking authorization under the Hazardous and Solid Waste Amendments of 1984 (HSWA).

The regulations related to HSWA have been in effect in Oregon since their promulgation by the EPA. There is, therefore, no new economic impact on the regulated community. The implementation and enforcement of the requirements by the state of Oregon will have fiscal impact on the Department.

o The land disposal restrictions regulations will be incorporated into our existing compliance program and education/technical assistance program. There is the cost of training staff about the requirements and there will be an added module to compliance enforcement inspections which will lengthen the time it takes to do an inspection. This should increase the cost of an inspection by approximately \$275.00.

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- o HSWA codification updates existing regulations with no additional fiscal impact.
- o The surface impoundment retrofitting requirement has no fiscal impact. The facilities in Oregon that this would have applied to chose to close their surface impoundments, so there are no facilities subject to this requirement.

The regulations that are being adopted to update the base RCRA program are a combination of substantive requirements and technical corrections. The technical corrections have no fiscal or economic impact. Several of the substantive requirements, because they will be taking effect for the first time in Oregon, will have an impact. They are:

- o The liability requirements for storage and disposal facilities are broadened. Companies now have an opportunity to satisfy this requirement with a Corporate Guarantee. In effect this can result in a substantial financial savings to companies that can qualify for the Corporate Guarantee. The savings would be based on the cost of liability insurance for a particular industry for a particular period of time.
- o The new regulations for RCRA permit modifications streamline the process and eliminate substantial bureaucracy for all modifications except Class 3 or very significant changes to a facility's permit. Overall, this results in a reduced fiscal impact on the agency and less economic burden on a permitted facility.
- o The treatability studies regulations allow a company to conduct a study without acquiring a facility permit. This has a positive economic impact on the regulated community and potentially reduces the fiscal impact on the agency. A treatment permit application fee is \$70,000.
- o The listing of certain wastes from the metal smelting industry has a potential negative economic impact on the steel industry in Oregon. These wastes have not been previously listed as hazardous wastes. Therefore, the cost of managing them was potentially less than it will be when the wastes become listed hazardous wastes. There is a minor fiscal impact to the agency since there is a possibility of a few new generators of hazardous wastes being added to the current universe of

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generators. The approximate cost of disposal for the
new steel industry wastes is \$185.00 per ton.

GCEQC3ATTB

A CHANCE TO COMMENT ON...

Proposed Adoption of Federal Hazardous Waste Regulations

Hearing Date: April 19, 1989
Comments Due: April 21, 1989

**WHO IS
AFFECTED:**

Persons who manage hazardous waste, including generators, owners/operators of hazardous waste treatment, storage, disposal, and recycling facilities.

**WHAT IS
PROPOSED:**

The Department of Environmental Quality (DEQ) proposes to amend OAR Chapter 340, Divisions 100, 101, 102, 104 and 105 to include federally promulgated regulations. This is necessary to assure equivalency to the federal program and to maintain authorization to manage the Oregon program in lieu of the federal program.

**WHAT ARE THE
HIGHLIGHTS:**

- o New regulations concerning land ban restrictions, including the "California List" and "First Third" listing of wastes.
- o New regulations concerning liability coverage and permit modification procedures for hazardous waste treatment, storage and disposal facilities.
- o New regulations concerning exemptions from permitting requirements for facilities conducting waste treatability studies.
- o New regulations concerning statistical methods for evaluating groundwater monitoring data and an Appendix IX listing of contaminants to test for in groundwater.
- o New regulations relisting potliners and other metal wastes.
- o Corrections to the lists of materials designated as hazardous wastes.
- o Deletion of several state only regulations that are addressed in the federal regulations being proposed for adoption.

- OVER -

C-1



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.

HOW TO
COMMENT:

Copies of the proposed rule package may be obtained from the Hazardous and Hazardous and Solid Waste Division, 811 S.W. Sixth, Portland, Oregon 97204. Oral and written comments will be accepted at the public hearing:

9:00 a.m-5:00 p.m.
Wednesday, April 19, 1988
DEQ Conference Room 4A (fourth floor)
811 S.W. Sixth
Portland, Oregon

Written comments should be sent to Gary Calaba, DEQ Hazardous and Solid Waste Division, 811 S.W. Sixth, Portland, OR 97204. Comments must be received by 5 pm, April 21, 1988. For further information contact Gary Calaba, (503) 229-6534, or toll-free within Oregon, 1-800-452-4011.

WHAT IS THE
NEXT STEP:

After the public hearing, DEQ will evaluate the comments, prepare a response to the comments and make a recommendation to the Environmental Quality Commission in June 1989. The Commission may adopt the amendments as proposed, adopt modified amendments as a result of testimony received, or decline to adopt any amendments.

GCEQC3ATTC

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**Department Report: Background Report and Summary of Proposed
Rules, Amendments and Corrections**

BACKGROUND

The Department is proposing the adoption by reference of several federal regulations, amendments, and corrections promulgated under the Resource Conservation and Recovery Act (RCRA) and Hazardous and Solid Waste Amendment, 1984 (HSWA). The base RCRA regulations promulgated by EPA through December 1987 are not in effect in Oregon and must be adopted by the Department by July 1, 1989, or the Department risks losing authorization. The HSWA regulations promulgated through December 1988 are being implemented in Oregon by EPA. The Department must submit an application for authorization of HSWA regulations by 1991.

Where federal regulations proposed for adoption are more stringent than existing state regulations, those existing state regulations are proposed for deletion to maintain authorization. The state program cannot be any less stringent than the federal program. Furthermore, where an existing Department regulation is equal in intent to the federal rule, the state's rule is proposed to be deleted.

The proposed regulations are further divided into Base RCRA and HSWA and are described and evaluated below according to their effect on Oregon Administrative Rules (OAR). Also included in the evaluation is a preliminary assessment of the regulatory impact on the regulated community and on the Department.

PROPOSED RULES

Base RCRA

REVISED MANUAL SW-846; AMENDED INCORPORATION BY REFERENCE, 52 FR 8072, 3/16/87.

SW-846, Test Methods for Evaluating Solid Waste, provides test procedures to be used to evaluate solid waste to determine whether the waste is a hazardous waste. The manual includes methods for collecting representative samples of solid wastes and for determining ignitability, reactivity, corrosivity, and composition of wastes.

This rule amendment announces the third edition of SW-846 and describes how to obtain the manual, how it differs from the

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second edition, and amends those sections of the RCRA regulations that incorporate the 2nd edition.

Adopting this rule will make the Department's program identical to the federal program.

LIST OF HAZARDOUS CONSTITUENTS FOR GROUNDWATER MONITORING,
REPLACES APPENDIX VIII WITH APPENDIX IX, 52 FR 25942, 7/9/87.

This rule amends the regulations concerning groundwater monitoring at RCRA treatment, storage and disposal (TSD) facilities. The rule requires an analysis of all the constituents in a new Appendix IX to Part 264 be performed on the groundwater taken from wells surrounding treatment, storage or disposal (TSD) facilities. Previous rules required an analysis of all the constituents in Appendix VIII.

Appendix IX is a shortened version of Appendix VIII (215 versus 380 constituents, respectively), plus an additional 17 chemicals routinely monitored in the Superfund program. Appendix IX was developed because many constituents in Appendix VIII have no testing methods or are unstable in water.

This rule amends 40 CFR 270.14 by requiring identification of the constituents listed in Appendix IX in groundwater rather than those listed in Appendix VIII.

Adopting this rule will make the Department's program identical to the federal program.

IDENTIFICATION AND LISTING OF HAZARDOUS WASTES, 52 FR 26012,
7/10/87, CORRECTION TO THE DEFINITION OF HAZARDOUS WASTE.

This technical correction addresses 40 CFR 261.33(c). The correction clarifies that it is the residue remaining in a container or inner liner that may be a hazardous waste, not the container or the liner itself.

The rule deletes the word "container" from the first sentence of 40 CFR 261.33 (c) in the 1984 through 1986 versions of the Code of Federal Regulations (CFR).

Adoption of this rule will make the Department's program identical to the federal program.

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LIABILITY REQUIREMENTS FOR HAZARDOUS WASTE FACILITIES; CORPORATE GUARANTEE; 52 FR 44314, 11/18/87; AND 53 FR 33938, 9/1/88.

The 11/18/87 rule finalizes the July 11, 1986 (FR 25350-25356) interim final rule which allows TSD facilities to use a corporate guarantee as an additional liability assurance mechanism. The rule was promulgated to provide relief for facilities that have had difficulties obtaining liability assurance to cover bodily injury or property damage to a third party resulting from accidents at the facility. The rule applies to corporations that are incorporated in and outside the United States. Specifically, 40 CFR 264.147, 264.151 and 265.147 are affected.

In 1987, the Department adopted the July 11, 1986 interim final financial responsibility rule. Therefore, the Department is required to adopt this final rule to maintain authorization.

The 9/1/88 rule amends 40 CFR 264.147, 264.151, 265.141, and 265.147, liability coverage for interim status facilities, by providing other financial mechanisms that may be used for liability coverage. They are letters of credit, surety bonds, trust funds, and guarantees which may be provided by firms that are not the direct corporate parent of the owner or operator of the facility.

The proposed amendments affect the Department's regulation, OAR 340-104-147 (4), which is deleted because it prohibits facilities from using a surety bond for liability coverage. The Department sees no compelling reason to maintain this prohibition.

Adopting the proposed amendments and deleting the Department's rule will make the Department's program identical to the federal program.

HAZARDOUS WASTE MISCELLANEOUS UNITS, 52 FR 46946, 12/10/87.

EPA's regulations describe design and operating standards for specific types of treatment, storage, and disposal units. These include containers, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, underground injection wells, and research development and demonstration (R&D) units. There are other technologies to manage hazardous waste, and this rule lists a new set of standards under Part 264 that will allow permits to be issued for hazardous waste management units that are not

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presently defined in RCRA. This rule adds a new section to Part 264, 40 CFR 264.600, Subpart X, Miscellaneous Units. "Miscellaneous unit" is defined as a hazardous waste management unit that does not fit the definition of container, tank, landfill, incinerator, surface impoundment, waste pile, land treatment system, underground injection wells, and R&D units.

Adopting the federal rule will make the Department's program identical to the federal program.

TECHNICAL CORRECTIONS; IDENTIFICATION AND LISTING OF HAZARDOUS WASTE (SUPERSEDES REVISION CHECKLIST 29), 53 FR 13382, 4/22/88.

This rule corrects typographical errors and misspellings on the list of commercial chemical products that are hazardous wastes when discarded (40 CFR 261.33 (e) and (f) and amends the lists of hazardous constituents in Appendices VIII and IX by adding hazardous waste codes to the constituents that are the same as those listed in 40 CFR 261.33 (e) and (f).

Adopting this rule will make the Department's program identical to the federal program.

RCRA PERMIT MODIFICATIONS FOR HAZARDOUS WASTE MANAGEMENT FACILITIES, INCLUDING TRANSFERS; 53 FR 37912, 9/28/88.

This rule replaces the current permit modification procedures in 40 CFR 270.40, 270.41, and 270.42 and establishes new procedures for modifying hazardous waste management permits. The new procedures were developed to give owners and operators of facilities more flexibility in modifying existing permit conditions, to provide for greater public notification, and to speed up the approval process if no public concern exists. Also, the rule allows temporary authorization of certain categories of activities to occur without public notice. The rule only applies to modifications requested by a permittee and not to those modifications initiated by the Department. For example, the permittee may request to add new wastes or processes and may be temporarily authorized to do so without public notice. This was a major modification under the old rules, and the Department was required to receive a permit modification and conduct a public notice before the facility could handle new wastes.

This rule classifies permit modifications into three (3) categories based upon the complexity of the modification.

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Class 1 modifications are routine changes, ranging from correcting typographical errors in the permit to changing reporting frequency. The middle range modifications, Class 2, address frequent changes needed to maintain a facility's capability to manage wastes or to conform with new regulatory requirements. The Class 2 modification process contains a default provision that allows the permittee to begin constructing the modification if the Department does not respond to the modification request within 120 days of receipt of the request. Class 3 modifications are major changes to the facility or to its operations. Class 3 modifications do not contain the default provision; however, both Class 2 and Class 3 require public notices except when the Department grants temporary authorization for a change to occur.

The new federal rule requires the permittee to notify every person on a Department developed mailing list of the proposed permit modification, and lists and classifies examples of permit modifications. As discussed, the rule also grants temporary authorization (maximum of 180 days) to facilities to implement certain Class 2 or Class 3 modifications without a public hearing.

OAR 340-105-040, OAR 340-105-041, and OAR 340-105-042 are affected by this rule.

The Department currently prohibits the transfer of permits (OAR 340-105-040) unless certain provisions are followed. The Department proposes to amend OAR 340-105-040 to allow permit modifications to occur under the federal rule, 40 CFR 270.40. However, the Department is adding a provision to 40 CFR 270.40 requiring all permit transfers to be subject to public hearing and review and, in addition, requiring an operational capability assessment and compliance history review of a potential treatment or disposal facility permittee be performed prior to approval of the transfer by the Department. Under the federal permit modification rules proposed for adoption, permit transfers are a Class 1 minor modification and may be approved by the Department without public review or comment or a capability assessment. The Department believes that a more stringent public review and capability and compliance history assessment of a potential treatment or disposal facility permittee are needed to maintain consistency with the language in OAR Chapter 340, Division 120 facility siting requirements.

The Department's OAR 340-105-041(1) deletes specific wording ("..cause does not exist under this section ...

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the Director shall not modify or revoke...permit") from the first paragraph in 40 CFR 270.41. That wording no longer exists in the current version of the first paragraph in 40 CFR 270.41. The present wording in 40 CFR 270.41 allows the Director to modify, revoke and reissue a permit if causes exist. The Department sees no compelling reason to retain OAR 340-104-041(1) and proposes to delete it allowing the Director to modify, revoke or reissue permits.

The Department also deletes 40 CFR 270.41(a) in OAR 340-105-041(2)(a). 40 CFR 270.41(a) defines the causes for modifying permits but not the causes for revoking or reissuing a permit unless the permittee agrees or requests revocation or reissuance. In place of 40 CFR 270.41 (a), the Department's present rule eliminates any reference to the permittee agreeing to or requesting that a permit be revoked and reissued. The Department proposes to delete OAR 340-105-041(2)(a) and (2)(b), thereby allowing permittees the option under 40 CFR 270.41 (a) of requesting that their permits be revoked or reissued, and entitling them to due process in case of disagreement with a Department permit revocation action.

40 CFR 270.41(a)(3) was deleted by OAR 340-105-041(3)(a). 40 CFR 270.41(a)(3) addresses permit modifications which are required due to new statutory requirements or regulatory changes. The proposed rule prescribes the conditions under which permits may be modified to include new regulatory changes. The wording used in OAR 340-105-041(3)(b) in place of the wording in 40 CFR 270.41(a)(3) simply addresses changes in "standards", or "regulations", or "judicial decisions" and does not include the "conditions" contained in 40 CFR 270.41(a)(3). The Department proposes to delete OAR 340-105-041(3)(a) to retain the conditions in 40 CFR 270.41(a)(3).

40 CFR 270.41(b)(2) is deleted by OAR 340-105-041(4). 40 CFR 270.41(b)(2) list by referencing 40 CFR 270.43 the causes for revoking and reissuing a permit and reference the reasons described in 40 CFR 270.30 (1)(3) for transferring permits. However, in OAR 340-105-030(1) the Department deletes in 40 CFR 270.30 the wording "the appropriate Act" as it pertains to the federal Congressional Acts and replaces it with "ORS Chapter 459 and OAR Chapter 340..". Chapter 459 has been replaced by Chapter 466. The Department proposes to amend OAR 340-105-030 (1) to reference Chapter 466 rather than Chapter 459.

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In addition, the Department proposes to delete OAR 340-105-041 (4) because it limits the Director's option under 40 CFR 270.41 (b)(2) to revoke or reissue a permit that is being transferred.

OAR 340-105-030(2) deletes 40 CFR 270.30(1)(2)(ii)(B). In OAR 340-105-030(2) the Department deleted a federal rule that would require the Department to respond to a permittee with a notice to inspect completed modifications within 15 days of receipt of a notice from the permittee that modifications had been accomplished according to the provisions in the permit. Failure to respond would allow the permittee to commence activities in the modified portions of the facility. The Department believes the 15 day time frame to respond to a permittee request for the Department to inspect new modifications is a reasonable expectation and proposes to delete OAR 340-105-030(2)

In OAR 340-105-030(3)(a) and (b) the Department deleted 40 CFR 270.30(1)(3) dealing with permit transfers and refers to the Department's permit transfer requirements in OAR 340-105-010(2)(d)(B)(iv). The requirements for permit transfers in the proposed amendments are equivalent in intent to the Department's provisions. Therefore, the Department proposes to delete OAR 340-105-030(3)(a) and (b).

OAR 340-105-042 deletes 40 CFR 270.42(d), minor permit modifications. This federal rule allows for a change in ownership or operational control of a facility when the Director determines that no change in the permit conditions are necessary and certain procedures are followed. The federal procedures are equivalent in intent to those found in OAR 340-105-010(2)(d)(B)(iv). The remaining minor permit modifications are amended by the new, proposed rule and resemble the Class 1 modifications. The Department believes OAR 340-105-042 duplicates the new federal rule and proposes to delete it.

The Department's siting criteria in Division 120 apply to permit modification processes involving changing from one hazardous waste management method to another and to permit transfers. To ensure there is no confusion regarding the applicability of Division 120 to these modifications, the Department is amending 40 CFR 270.41 (c) in OAR 340-105-041 to include Division 120. 40 CFR 270.41 (c) exempts facilities seeking modifications from meeting any siting standards.

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In summary, the Department's current rules concerning permit modifications restrict the Department's flexibility by requiring EQC approval of minor changes to a permit. The new rules allow a facility to make minor Class 1 modifications without EQC approval or approval by Department staff for some modifications. However, under the new rules the Department retains authority to require justification of a facility's determination of a Class 1 modification, and may elevate the modification to a higher class which would require Department approval before it may be implemented. Concerning public notices and review of proposed modifications, the most significant change in the new rule from the previous rule is that a facility rather than the DEQ now has the responsibility to do the public notice (40 CFR 270.42(b) for Class 2; 40 CFR 270.42(c) for Class 3). For Class 1 modifications, the permittee is only required to notify the public after the change is made, although the public may request the Department to review any Class 1 modification to determine if it is appropriately classed.

Adopting the federal permit modification rules will not result in a more stringent program except where Division 120 applies. Several modification provisions are equivalent in intent to current Department regulations. Also, new modification procedures speed up public notice and public review processes, and allow the Department and regulated community more flexibility in dealing with permit modifications.

IDENTIFICATION AND LISTING OF HAZARDOUS WASTE TREATABILITY STUDIES SAMPLE EXEMPTION, 53 FR 27290, 7/19/88.

This rule exempts from permitting requirements generators and owners and operators of testing facilities that conduct treatability studies on waste samples when certain conditions are met. The conditions require the generator or sample collector to not ship more than 2200 lbs. of non-acute hazardous waste; more than 2.2 lbs. of acutely hazardous wastes; or more than 550 lbs. of acute hazardous waste that is contained in contaminated soils or solid wastes, for example. There are recordkeeping and storage requirements as well. The new rule was developed to deal with the time constraints associated with obtaining a RCRA permit, and with RCRA Part B permitting requirements which are too stringent for the purposes intended here.

Adoption of this rule will allow companies to do small-scale bench testing of wastes to determine the wastes'

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treatability. Presently, under Department rules, a permit would be required to do testing.

Adoption of this rule will make the Department's program identical to the federal program.

STATISTICAL METHODS FOR EVALUATING GROUNDWATER MONITORING DATA FROM HAZARDOUS WASTE FACILITIES, 53 FR 39720, 10/11/88.

This RCRA regulation amends the 264, Subpart F groundwater monitoring requirements pertaining to the testing methods used to evaluate the statistical presence or increase/decrease of contaminants in groundwater. The rule also finalizes sampling procedures and performance standards designed to minimize errors which may lead to incorrect statistical conclusions. Problems associated with the use of Cochran's Approximation to the Behrens-Fisher Student's t-test (CABF) prompted EPA to establish in this rule five (5) other tests which are more appropriate than the CABF procedure for evaluating groundwater data. The CABF method may result in "false conclusions."

Adoption of this rule will make the program identical to the federal program.

IDENTIFICATION AND LISTING OF HAZARDOUS WASTE, RELISTING CERTAIN WASTES FROM METAL SMELTING OPERATIONS, 53 FR 35412, 9/13/88.

This amendment relists certain wastes from metal smelting operations. The wastes are generated by the copper, lead, zinc, aluminum and ferroalloys industries and consist mainly of sludge, acid plant blowdown slurry from metal production (primary zinc and copper production), emission control dusts and spent potliners containing lead, cadmium, chromium and cyanide complexes (aluminum industry).

The rule also amends the mining waste exclusions found in 40 CFR 261.4(b)(7) that exempt processing wastes from the definition of hazardous waste. The rule states that these wastes do not meet the definition of "processing wastes" and therefore are not exempt from regulation as hazardous wastes.

The EPA initially listed these wastes as hazardous but suspended the listing because of the "Beville Amendment" which excluded these particular wastes from regulation pending the outcome of studies of their hazardous characteristics. Even though the studies are not complete, the courts ordered EPA to relist the wastes.

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The Department's rules OAR 340-101-032 and OAR 340-101-034 list spent potliners (K088) from aluminum manufacturing as hazardous waste and are duplicated by the new federal rule. Adopting the federal rule will provide the metal manufacturing industry with federal potliner rules which are clearer than current Oregon rules. Therefore, the Department proposes to delete both OAR 340-101-032 and OAR 340-101-034.

Also, unlike the federal rule in 40 CFR 261.4(b)(7)), the Department does not exempt wastes generated from processing ores (OAR 340-101-004 (2)). The Department will retain its broader authority to regulate processing wastes under its rule while adopting the newly listed (40 CFR 261.33) federal wastes generated by metal manufacturing industries.

With the exception of the Department's regulation of potliners from the aluminum manufacturing industry, adoption of the federal amendment will likely increase the Department's universe of generators because of the addition of five (5) new waste streams to the Department's regulations.

Adoption of this amendment will make the Department's program identical to the federal listing of hazardous wastes from metal manufacturing industries.

HSWA

LAND DISPOSAL RESTRICTIONS, 51 FR 40572, 11/7/86 ; 52 FR 21010, 6/4/87. THE EVALUATION BELOW INCLUDES ALL LAND BAN RESTRICTIONS PROMULGATED BY EPA TO-DATE AND DESCRIBED IN HSWA OR OTHER REGULATIONS.

The 11/7/86 rule was the initial land disposal restriction rule. It was followed by 52 FR 21010, 6/4/87; 52 Fr 25760, 7/8/87; FR 41295-6, 10/27/87; and 53 FR 31138, 8/17/88 which is listed under "Other Regulations" below.

Since the initial rule was amended by subsequent rules, the Department recommends adopting all land disposal restrictions evaluated here.

The land disposal restrictions were enacted by Congress as part of the provisions in HSWA. The land disposal restrictions prohibit the continued land disposal of untreated hazardous waste and are being phased in beginning with the ban on dioxins and solvents. By May, 1990, EPA will

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have banned from landfilling all hazardous wastes unless those wastes meet specified treatment standards. Currently, the restrictions described below are in effect in Oregon and are being implemented by EPA.

The initial (11/7/86) land disposal restrictions address the F listed solvents, F001-F005, and certain dioxin containing wastes, F020, F021, F022, and F023. The restrictions prescribe treatment standards for those wastes using the Toxicity Characteristic Leaching Procedures (TCLP) to determine if they meet certain treatment standards. Those standards must be met before the wastes may be disposed in a RCRA permitted landfill. Generators of the wastes must certify that the wastes have been treated to acceptable standard.

The July 8, 1987 amendment rescinds certain sections of the initial rule. Specifically, 40 CFR 268.42 (b), 262.44 and 268.6 pertaining to non-migration petitions are no longer delegated to the states. Approval of a "non-migration petition" by a state allowed the petitioner to continue land disposing of restricted hazardous wastes as long as the petitioner could demonstrate with a high degree of certainty that the wastes could not migrate from the disposal unit. EPA decided to retain authority for approving non-migration petitions.

The amendment also restricts the land disposal in any state of "California List" wastes. The list is named "California List" because the list was derived from the California hazardous wastes regulation. The list includes PCBs at or above 50 ppm, liquid hazardous wastes or sludge containing arsenic, cadmium, chromium, lead, mercury, nickel, selenium, or thallium above specific concentrations, and hazardous wastes containing halogenated organic compounds (HOC) in total concentrations greater than or equal to 1000 mg/kg, and land disposal of liquid hazardous wastes with a pH less than or equal to two (2.0). No treatment standards for California listed wastes are being prescribed in this rule. EPA expects to establish treatment standards at a later date.

The 10/27/87 rule amends the "California list" (finalized 7/8/87) test methods specified in 40 CFR 268.32(i). The test method determines when a waste is a liquid. The California list regulates mainly liquid hazardous wastes. This amendment incorporates by reference "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." This

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publication contains methods for determining if a waste is a liquid (Liquids Paint Filter Test).

Since the California List deals primarily with liquid wastes, OAR 340-104-314 is affected. This Department's rule prohibits land disposal of the free liquid portion of a liquid/solid mixture containing in excess of 20 percent free liquid. A solid material contains a free liquid if liquid drips through a 60-mesh paint filter containing the mixture. OAR 340-104-314 was passed before the federal paint filter test was adopted and will become duplicative when we adopt the new testing methods in the California List rule. Also, disposal of liquids in land disposal units is covered under the federal rule, 40 CFR 264.314. Therefore, we propose to delete OAR 340-104-314.

The 8/17/88 regulations prohibit the disposal of the "First Third" of hazardous wastes and establish treatment standards for wastewaters and nonwastewaters and all residuals from treating the wastewaters and nonwastewaters which contain only the "First Third" wastes. The "First Third" wastes are listed in 40 CFR 268.10. EPA does not establish treatment standards for the P- or U-listed first third substances in 40 CFR 268.10 because they have not yet developed the standards. The wastes, therefore, may continue to be disposed by landfilling until May 8 1990, unless they are subject to the California List. However, a generator desiring to continue land disposing the first third waste must certify in writing that landfilling is the only management method available.

Adoption of these rules will make the Department's program identical to the federal program.

HSWA CODIFICATION RULE 2, 52 FR 45788, 12/1/87.

This rule codifies changes to the existing RCRA regulations that implement RCRA corrective action and permitting at RCRA facilities. Specifically, the rule addresses releases from solid waste management units at or beyond a facility's boundary. It requires facilities seeking permits, or those required to get permits, to include in their permit application all available information about any releases from solid waste management units. Owners or operators of the facilities where releases have occurred must sample and analyze groundwater, landsurface and subsurface strata, surface water, or air. Operators may be required to install monitoring and detection wells when it is determined by the Department that the wells are necessary to complete a RCRA

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Facility Assessment (RFA), or where insufficient evidence exists confirming a release.

SURFACE IMPOUNDMENT RETROFITTING REQUIREMENTS; CLOSURE REQUIREMENTS, 53 24717, 6/30/88.

HSWA requires that all surface impoundments in existence on November 8, 1984 that qualify for interim status be retrofitted with double liners, a leak detection system, a leachate collection system and groundwater monitoring systems, or stop receiving hazardous wastes by November 8, 1988, and close.

This rule implements the HSWA requirement and establishes closure time frames for both impoundments with and without approved closure plans. No facilities in Oregon are subject at this time to the new retrofitting or closure requirements.

OAR 340-104-228 provides procedures for closure of surface impoundments. This rule is more stringent than the federal closure procedures for interim status and permitted impoundments because it requires the operator to attempt to remove contaminants from the impoundment before closure as a landfill. The federal closure procedures allow the impoundment to close as a landfill without first attempting to remove as much contamination as possible. The Department believes an attempt should be made to remove wastes before they are left in place and the facility closed as a landfill. Thus, the Department's rule will be retained.

STANDARDS FOR HAZARDOUS WASTE STORAGE AND TREATMENT TANK SYSTEMS, 53 FR 34079, 9/2/88.

This rule provides clearer wording in the regulations and corrects typographical and other errors in Parts 260, 264, 265, and 270 pertaining to tank systems (the Department adopted the original storage and treatment tank regulations in December, 1987). The original rule sought to regulate "tank systems," including both the tank and especially any ancillary equipment associated with the tank. For the first time, the new tank regulations brought under scrutiny ancillary equipment such as piping, distribution systems, and metering systems, which are used to convey hazardous waste from the point of generation to regulated storage or treatment tanks.

Passage of the original rule initiated numerous concerns from the regulated community that exempt wastewater treatment and elementary neutralization units and their

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ancillary equipment were now covered under the new tank regulations.

This amendment to the original tank rule clarifies this misconception by amending 40 CFR 260.10 definitions for both elementary neutralization units and wastewater treatment units by including the term "tank system" in their definitions. Inclusion of the definition of "tank system" ensures that the tank as well as all ancillary equipment is exempt from the rules. Also, the rule clarifies that leak detection systems promptly detect leaks occurring from the primary structure into the secondary containment structure, meaning at the interstitial space between the walls of a double-walled tank, and are not required to detect a leak that occurs outside the secondary containment structure.

Adoption of this rule will make the Department's program identical to the current federal program.

SPENT PICKLE LIQUOR FROM STEEL FINISHING OPERATIONS, 52 FR 28697, 8/3/87.

This amendment to the often amended spent pickle liquor regulations (40 CFR 261.32, K062), corrects an erroneous insinuation in the May 28, 1986 (adopted by the Department May 29, 1987) that the regulation applies to plants that produce iron and steel. On September 22, 1986, EPA corrected the error by stating that it is the steel and iron industries that are affected by the May 28, 1986 rule, and not simply those industries producing iron and steel.

However, the September 22 technical corrections (the Department adopted these in December, 1987) raised more questions from the regulated community. The September 3, 1987 amendment being proposed for adoption states that the K062 listing applies to any plant in the iron and steel industry.

Adoption of this rule will make the Department's program identical to the federal program.

IDENTIFICATION AND LIST OF HAZARDOUS WASTE, REMOVAL OF IRON DEXTRAN AND STRONTIUM SULFIDE FROM THE LIST OF HAZARDOUS WASTES, 53 FR 43878-43884, 10/31/88.

This rule removes dextran and strontium sulfide from the list of commercial chemical products in 40 CFR 261.33(f) that are hazardous wastes when discarded or intended to be discarded. EPA determined that these chemicals do not pose a

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substantial threat or significant hazard to human health if not handled as a hazardous waste when discarded.

Adoption of this rule will make the Department's program identical to the federal program.

CORRECTION TO THE PERMIT MODIFICATIONS FOR HAZARDOUS WASTE MANAGEMENT FACILITIES, 53 FR 41649, 10/24/88.

This correction adds in 40 CFR 270.42 in the last entry, in the bottom line, in the right hand column, the number "2".

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SUMMARY OF FEDERAL RULES PROPOSED FOR ADOPTION

| | <u>Federal Rule Proposed</u> | <u>Date Promulgated by EPA</u> | <u>Code of Federal Regulations (CFR)</u> | <u>State Rule/Amended OAR</u> | <u>Base RCRA</u> | <u>HSWA</u> |
|----|--|----------------------------------|--|-------------------------------|------------------|-------------|
| 1. | Revised manual SW-846; Amended Incorporation by Reference, 52 FR 8072. | 3/16/87 | 40 CFR Parts 260 and 270 | None | x | |
| 2. | List of Hazardous Constituents for Groundwater Monitoring, Replaces Appendix VIII with Appendix IX, 52 FR 25942. | 7/9/87 | 40 CFR Parts 264 and 270 | None | x | |
| 3. | Identification and Listing of Hazardous Wastes, 52 FR 26012; Correction to the Definition of Hazardous Waste. | 7/10/87 | 40 CFR Part 261 | None | x | |
| 4. | Liability Requirements for Hazardous Waste Facilities; Corporate Guarantee; 52 FR 44314, and 53 FR 33938 [respectively]. | 11/18/87 and 9/1/88 respectively | 40 CFR Parts 264 and 265 | 340-104-147(4) | x | |
| 5. | Hazardous Waste Miscellaneous Units, 52 FR 46946 | 12/10/87 | 40 CFR Parts 144, 260, 264, and 270 | None | x | |

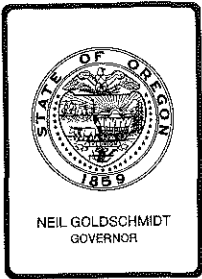
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|-----|---|--|--|---|---|
| 6. | Technical Corrections; Identification and Listing of Hazardous Waste, 53 FR 13382 | 4/22/88 | 40 CFR Part 261 | None | x |
| 7. | Land Disposal Restrictions, 51 FR 40572 and 52 FR 21010; California List Waste Restrictions, 52 FR 25760; California List Waste Restrictions, Technical Corrections, 52 FR 41295; Land Ban Restrictions of "First Third" Wastes, 53 FR 31138. | 11/7/86, 6/4/87, 7/8/87, 10/27/87, and 8/17/88 respec- tively. | 40 CFR Part 260 et al. | 340-104-314 | x |
| 8. | HSWA Codification Rule 2; Codifies changes to Corrective Action and Permitting Requirements, 52 FR 45788. | 12/1/87 | 40 CFR Parts 144, 264, 265, 270, and 271 | None | x |
| 9. | RCRA Permit Modifications for Hazardous Waste Management Facilities, 53 FR 37912; corrections to the 9/28/88 rules concerning permit modifications, 53 FR 41649. | 9/28/88, 10/24/88 respec- tively. | 40 CFR Parts 124, 264, 265, and 270 | 340-105-040, 340-105- 041, and 340-105-042 | x |
| 10. | Identification and Listing of Hazardous Waste Treatability Studies Sample Exemption, 53 FR 27290. | 7/19/88 | 40 CFR Parts 260 and 261 | None | x |
| 11. | Surface Impoundment Retrofitting Requirements, Closure Requirements, 53 FR 24717. | 6/30/88 | 40 CFR Parts 264 and 265 | None | x |
| 12. | Statistical Methods for Evaluating Groundwater Monitoring Data from Hazardous Waste Facilities, 53 FR 39720. | 10/11/88 | 40 CFR Part 264 | None | x |
| 13. | Identification and Listing of Hazardous Waste, Relisting Certain Wastes from Metal Smelting Operations, 53 FR 35412. | 9/13/88 | 40 CFR Parts 261 and 302 | 340-101-032 and 340- 101-034 | x |

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|-----|--|----------|-------------------------------|------|---|
| 14. | Standards for Hazardous Waste Storage and Treatment Tank Systems, 53 FR 34079. | 9/2/88 | 40 CFR 260, 264, 265, and 270 | None | x |
| 15. | Spent Pickle Liquor from Steel Finishing Operations, 52 FR 28697. | 8/3/87 | 40 CFR 261 | None | x |
| 16. | Identification and Listing of Hazardous Waste, Removal of Iron Dextran and Strontium Sulfide from the List of Hazardous Wastes, 53 FR 43878-43884. | 10/31/88 | 40 CFR 261 and 302 | None | x |

GC/EQCATTDA



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: March 3, 1989
Agenda Item: I
Division: Management Services
Section: Administration

SUBJECT:

Annual State/EPA Agreement.

PURPOSE:

This annually updated agreement between DEQ and the Environmental Protection Agency establishes mutual understanding of program priorities and expected accomplishments for the next fiscal year (July 1, 1989 through June 30, 1990) and becomes the basis for federal funding assistance to DEQ.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)

- Authorize Rulemaking Hearing
 - Proposed Rules (Draft) Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Draft Public Notice Attachment

- Adopt Rules
 - Proposed Rules (Final Recommendation) Attachment
 - Rulemaking Statements Attachment
 - Fiscal and Economic Impact Statement Attachment
 - Public Notice Attachment

- Issue Contested Case Decision/Order
 - Proposed Order Attachment

- Other: Authorize the Department to hold a public hearing to receive input on the State/EPA Annual Agreement.

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DESCRIPTION OF REQUESTED ACTION:

A public hearing is proposed to receive public comment on the issues and priorities to be reflected in the annual State/EPA Agreement. A staff draft of priority issues for Oregon for 1990 (Attachment B) has been prepared and will be circulated to provide a basis for comment. Notice of the Public Hearing would be mailed to known interested persons as well as published in newspapers of general circulation in Oregon.

AUTHORITY/NEED FOR ACTION:

| | |
|---|------------------|
| <input type="checkbox"/> Required by Statute: _____ | Attachment _____ |
| Enactment Date: _____ | |
| <input type="checkbox"/> Statutory Authority: _____ | Attachment _____ |
| <input type="checkbox"/> Amendment of Existing Rule: _____ | Attachment _____ |
| <input type="checkbox"/> Implement Delegated Federal Program: _____ | Attachment _____ |

Other:
 Opportunity for public input through a public hearing is required by EPA.

Time Constraints: (explain)
 The public hearing needs to be held, comments considered and responses developed by June 2, 1989. Final EQC action is needed by June 2, so that annual federal program grants can be awarded by July 1, 1989 (beginning of the fiscal year).

DEVELOPMENTAL BACKGROUND:

| | |
|---|---------------------|
| <input type="checkbox"/> Advisory Committee Report/Recommendation | Attachment _____ |
| <input type="checkbox"/> Hearing Officer's Report/Recommendations | Attachment _____ |
| <input type="checkbox"/> Response to Testimony/Comments | Attachment _____ |
| <input type="checkbox"/> Prior EQC Agenda Items: (list) | Attachment _____ |
| <input type="checkbox"/> Other Related Reports/Rules/Statutes: | Attachment _____ |
| <input checked="" type="checkbox"/> Supplemental Background Information | |
| Background Information on Issue | Attachment <u>A</u> |
| Draft Public Hearing Announcement | Attachment <u>B</u> |
| Proposed Public Participation Summary from the State/EPA Agreement | Attachment <u>C</u> |

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

In the past, the Department has provided the opportunity for public input (hearing) after the State/EPA agreement has been negotiated between DEQ and EPA. The timing of the public hearing has made it difficult to adequately consider the public input.

To afford a better opportunity for meaningful public input, the Department proposes to provide an opportunity for comment on priority issues prior to completion of negotiations with EPA.

The reaction to this proposal for an earlier public hearing on issues for the State/EPA agreement should be positive from both the regulated community and environmental groups, as well as the general public.

PROGRAM CONSIDERATIONS:

The public hearing may bring forth suggestions for action which would affect program priorities and agency allocation of resources. To the extent that federal funding may be involved, such issues will need to be negotiated with the EPA. The agency analysis of proposals from the public will speak to the programmatic and budget considerations in its report to the Commission.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Authorize the Department to hold a public hearing on April 14, 1989, to receive input on priority issues for the State/EPA agreement. The Department would then return to the Commission at the June meeting with a report on the comments received from the public, the agency analysis of the comments, if the comments are included in the draft State/EPA agreement and why or why not.

This action would provide the public opportunity to make comments and suggestions early enough in the negotiation process to have effect on the state/EPA document. It would also provide the department with sufficient time to review and analyze the comments and suggestions and make sound recommendations regarding them.

Meeting Date: March 3, 1989
Agenda Item: I
Page 4

2. The Commission could decide to hold the public hearing and directly receive public comments and suggestions on the State/EPA agreement at the April 14, 1989, meeting.

The Commission could then ask the Department to respond to the suggestions and comments at the time of hearing as has been the process in the past. This process would result in having comments received early enough in the process to have an effect on the outcome of the State/EPA negotiations. Having the Department respond at the time of public comment would limit its ability to perform the analytical work to the knowledge on hand at the time of the Commission meeting, providing less thoughtful response than desired.

3. The Commission could hold the public hearing and directly receive public comments at the April 14, 1989, meeting, and ask the Department to return with its analysis of the comments received and describe whether the comments are included in the draft State/EPA agreement.

This process would have the desired results of allowing the public early access to the process and allowing the Department sufficient time to prepare appropriate analyses. The only disadvantage of this approach is the time spent by the Commission taking public testimony.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends approval of Alternative 1; (Authorization for the Department to hold a public hearing on the State/EPA annual agreement).

The recommendation would provide the public opportunity to comment early, would provide the Department time to do analysis of the comments and suggestions, would allow the Department to return to the Commission with a report on the public comments received together with its response for the Commission to review in total.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The State/EPA agreement is expected to be consistent with the strategic plan, agency policy and legislative policy.

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ISSUES FOR COMMISSION TO RESOLVE:

1. Format for receiving public input -- Does the Commission wish to have the Department receive the input (Department Recommendation) or does the Commission wish to receive the public input directly (Alternatives 2 or 3)?
2. Does the Commission have any early comments or suggestions relative to the priority issues identified in Attachment B?

INTENDED FOLLOWUP ACTIONS:

- a. Receive public input on April 14, 1989.
- b. Summarize and evaluate comments.
- c. Complete preliminary negotiations with EPA on the State / EPA Agreement.
- d. Prepare a report for presentation to the Commission at the June 2, 1989 meeting.

Approved:

Section: _____

Division: Lydia Taylor

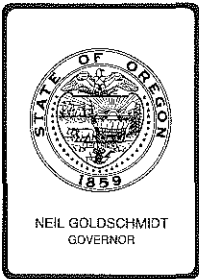
Director: Jell Hen

Report Prepared By: Lydia Taylor

Phone: 229-6485

Date Prepared: February 13, 1989

LRT:L
J-MSDr
2/13/89



Department of Environmental Quality

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

TO: Environmental Quality Commission

FROM: Director

SUBJECT: Agenda Item I, March 3, 1989
Request to Authorize Hearing on State/EPA Agreement

Background

Every year the Department and the EPA negotiate an agreement which covers mutually understood environmental priorities, commitments to do certain work and reach certain goals. The agreement covers the environmental activities of the State which EPA funds and covers activities of the Department not funded by EPA but which are included to give a complete picture of State environmental activities.

Historically, the agreement has carried forward traditional basic activities in Air Quality, Water Quality and Hazardous waste. The agreement also usually speaks to areas of environmental concern which are newly recognized or are a priority of EPA or DEQ.

Although the EPA funds approximately 25% of the Department's activities, the State/EPA agreement (called the SEA) attempts to cover in narrative form most department activities. In the past the SEA has been viewed as a grant document in which DEQ promised to perform certain activities in return for federal dollars. Last year we attempted to make the document a more mutual one with promises from both parties about what things they would perform for the purpose of reaching mutually shared environmental goals.

Our goal this year is to more clearly define roles and ways to measure promises and strive to reach a partnership to use limited resources to the fullest.

Public Participation

The public participation portion of the State EPA agreement process was historically done through advertisement in the paper, notification of individuals and groups who had asked to be informed of the process, A-95 Review, opportunity to make written comment and a public hearing held before the Commission rather

late in the process. The public hearing portion was held late in the process so that individuals would have a copy of the draft SEA agreement to review before making comment. This offered the advantage to the public of having something to comment against, but didn't get them into the process early enough to make general suggestions about direction and concerns that needed to be negotiated with EPA prior to drafts being developed.

At last year's public hearing on the SEA which was held before the Commission, several individuals testified on behalf of their organizations about issues they felt should be covered in the SEA. The Department had not received written comments or other concerns from these individuals previously which resulted in little time being allowed for thoughtful response. The Department and EPA had already negotiated most work elements in the agreement. Having the public hearing held earlier in the process would allow time for thoughtful analysis and response to public comment by the Department.

The Department's recommendation to hold the hearing before the Commission, with a subsequent report to the Commission is to allow the public access to the process as early as possible; to allow for thoughtful analysis and consideration of public testimony; to allow for items brought up by the public to be discussed with the EPA prior to draft documents being prepared; and, to allow the Commission to observe if and where the public's comments were considered in the draft State/EPA document.

The Department would intend to return to the Commission on June 2nd to provide an information report on the State/EPA agreement, including a summary of public testimony and written comment, Department analysis and response to the public comment, draft State/EPA documents and issues to be resolved.

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

The State/EPA Agreement

Each year, the State and EPA negotiate an agreement which is the contractual document that outlines what work the state will perform during Federal Fiscal year 1990 supported partially by federal dollars. The agreement also speaks to commitments from the EPA to Oregon in the way of technical assistance and other resources. The State/EPA agreement covers ongoing programs such as industrial inspections and monitoring efforts. It also provides special short-term projects in areas of special environmental concern. The agreement discusses in general most DEQ programs and priorities whether federally funded or not. It discusses as well programs funded by EPA which are carried out by other state agencies such as the Health Division. These general discussions are intended to set the tone for a partnership with EPA in addressing environmental priorities.

The Department is seeking comments from the public on the proposed content of the State/EPA agreement for federal fiscal year 1990 (July 1, 1989, June 30, 1990).

The Department will hold a public hearing on the proposed agreement Friday, April 14, 1989, at 811 SW 6th Ave., Portland, Oregon in Room 10A, from 1:00 pm to 3:00 pm.

Copies of the full draft State EPA agreement will be available for review after May 1, 1989, at the DEQ offices listed below.

The Department will accept written comments until June 2, 1989.

Headquarters Office

811 SW Sixth Avenue
Portland, Oregon 97204
229-5696 Toll Free 1-800-452-4011

Astoria Branch Office

Clatsop County Courthouse
749 Commercial
P.O. Box 869
Astoria, Oregon 97103
325-8660

Willamette Valley Region

750 Front Street N.E. - Suite 120
Salem, Oregon 97310
378-8240

Coos Bay Branch Office

490 N. 2nd
Coos Bay, Oregon 97420
269-2721

Roseburg Branch Office

1937 W. Harvard Blvd.
Roseburg, Oregon 97470
440-3338

Southwest Region

201 W. Main Street
Suite 2-D
Medford, Oregon 97501
776-6010

Central Region

2146 NE 4th
Bend, Oregon 97701
388-6146

Eastern Region Office

700 SE Emigrant
Suite 330
Pendleton, Oregon 97801
276-4063



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.

MY8202

Attachment B

FY 1990 PRIORITY ISSUES FOR
OREGON

AIR QUALITY PROGRAM

PM10 - ADOPT AND IMPLEMENT ATTAINMENT STRATEGIES

- Attempt to identify additional Group I or Group II areas not yet identified as available EPA special project funds permit
- Adopt and submit SIP's for all Group I and Group II areas as they are found
- Implement the provisions of the SIP's such as monitoring, enforcement of industrial rules and evaluation of woodstove curtailment programs

RESOLVE PORTLAND OZONE SITUATION

- Complete FY89 commitments scheduled to continue into FY90
- As a result of FY89 ozone season monitoring, address issues of redesignation or additional commitments

WOODSTOVE PROGRAM

- Implement FY89 legislative mandates
- Continue to update BEST (best existing stove technology) list
- Consider proposing changes to Federal or State certification program as may be needed to insure a high level of in home emission control performance

INDOOR AIR

- Implement legislative mandates
- Prepare for any needed additional legislation

TOXICS PROGRAM

- Develop proposed State rules for new sources and initiate development of an existing source control program

FIELD AND SLASH BURNING

- Implement FY89 legislative mandates for field burning
- Review and update the state-wide Smoke Management Plan, as needed

STRATEGIC PLAN FOR DEQ

- Implement the plan for achieving long term Department goals

WATER QUALITY PROGRAM

NPDES PERMITS

- DEQ needs to identify and reissue major and minor municipal and industrial permits
- permits need to be issued as they expire based on DEQ's firm commitment
- EPA should continue to provide technical assistance

WATER QUALITY LIMITED STREAM SEGMENTS

- DEQ needs to identify, assess, and establish TMDL's (WLA's and LA's) in accordance with NEDC consent decree

NON-POINT SOURCE POLLUTION

- Non-point source assessment/management plans need to be implemented

GROUNDWATER

- DEQ has drafted a groundwater quality protection program and has submitted it to the legislature
- If the 1989 Legislature approves legislation and funding, the program will be implemented

STATE REVOLVING FUNDS (SRF)

- FY 1991 is the last fiscal year for the construction grants program
- If the DEQ match is determined by the 1989 Legislature, the SRF program will be implemented and the grant program phased out

TOXICS

- Individual control strategies to resolve high priority water quality problems will be implemented

HAZARDOUS WASTE PROGRAM

DEVELOP A COMPREHENSIVE PREVENTATIVE PROGRAM

- Aggressively pursue the implementation of a hazardous waste reduction program
- Conduct a compliance program targeted at generators of hazardous waste and pursue enforcement against significant violators
- Develop an educational/technical assistance program targeted at high priority generators
- Participate in state/regional siting and permitting of new and expanded facilities that provide additional waste management capacities and environmentally sound alternatives.

ENVIRONMENTAL CLEAN-UP

- Focus on closure, corrective action and post-closure permits at environmentally significant unauthorized land disposal facilities

SUPERFUND PROGRAM

PROGRAM MANAGEMENT AND ADMINISTRATION

- Develop and enter into a Superfund Memorandum of Agreement (SMOA) between EPA and DEQ to facilitate communication and provide for mutual agreement on each agency's roles and responsibilities during CERCLA response activities.
- Renew and maintain the Core Program Cooperative Agreement to provide funds for CERCLA activities that are not assignable to specific sites, but support the State's site-specific response program.
- Continue to develop staff capability, management and administrative procedures, and funding sources. Continue to develop and implement cleanup rules and the procedures for use of contractors and contract laboratory support.
- Participate with EPA in the SCAP and other planning processes to promote recognition and inclusion of Oregon sites in the federal cleanup program.

PRE-REMEDIAL

- Continue to participate in the CERCLA pre-remedial program by conducting preliminary assessments and site investigations of Oregon CERCLIS sites through multi-site/multi-activity cooperative agreements.

CLEANUP OF NATIONAL PRIORITY LIST SITES

- Participate in remedial investigation/feasibility studies at Teledyne Wah Chang and Umatilla Army Depot, and design and construction activities at NL/Gould and Martin Marietta through management assistance. Pursue State lead to conduct RI/FS activities at Joseph Forest Products sites.
- Assist EPA in resolution of operation and maintenance and cost recovery issues at United Chrome Products site and participate in Phase II groundwater investigation.

UNDERGROUND STORAGE TANK (UST) PROGRAM

ADOPT TECHNICAL STANDARDS RULES

- DEQ anticipates significant activity in this area at close of current legislative session, with adoption in July - September (1st Quarter, 1989).

PROGRAM APPROVAL APPLICATION

- Following adoption of technical standards rules, DEQ expects to have a program approval application ready for initial submittal in December 1989 (2nd Q)

IMPLEMENTATION OF CERTIFICATION RULES

- DEQ will adopt rules for licensing and certification of UST contractors in the early part of 1989. Implementation of the rules for installers, retrofitters and decommissioners will occur during the first two quarters of 1990.

ISSUE FINAL UST PERMITS

- DEQ requires all eligible UST owners/operators (o/o) to have state operating permits. Following final adoption of rules (expected by the end of 2nd Q) all existing temporary permits will be replaced with final permits during the 3rd and 4th Q's.

LEAKING UST (LUST) PROGRAM

ADOPTION AND IMPLEMENTATION OF OREGON'S SOIL CLEANUP MATRIX

- DEQ is developing a soil contaminant cleanup matrix for petroleum products. DEQ expects adoption by the Environmental Quality Commission in early 1990 and significant implementation activity for several quarters thereafter.

TRAINING

- The LUST program requires general training in several critical areas, including cleanup technologies, investigation, enforcement, cost recovery, and cleanup policies. These LUST-related areas are not currently well-covered by governmental training programs and a DEQ priority will be to identify and participate in such training programs in the Northwest region.

PROGRAM APPROVAL APPLICATION

- The LUST program priority is similar to the above-noted UST priority.

SITE CLEANUP OVERSIGHT/MANAGEMENT

- Major DEQ resources will be expended in 1990 on site oversight/management. DEQ is placing a high priority on obtaining productive guidance on soil/GW cleanup levels, risk assessment technologies, and other related guidance.

BASE PROGRAMS

Though many of the abovementioned priority issues reflect new or evolving programs, it is important to note that much of the environmental efforts by DEQ and EPA are directed to operation of base activities in air, water, and hazardous waste programs, e.g., regulation development, permits issuance, source inspection, monitoring, etc. These activities are essential to both new and ongoing programs and constitute a significant portion of both agencies' priority work. The full FY 1990 SEA, which will be available in draft form for public review and comment in April 1989, will include detailed discussions of outputs and commitments for both new and ongoing programs.

POLICY

The undersigned agree that the foregoing statements reflect the priority issues and general policies that will govern development of the FY90 Oregon SEA. EPA guidance to Oregon, while based on headquarters guidance, will to the fullest extent possible reflect the spirit and intent of this agreement. Likewise, this agreement will serve as a general framework for the negotiations that will occur during Mid-Year Reviews. It is understood that additional discussions and editing of "Environmental Issues" may occur prior to the inclusion in the SEA.

Frederic J. Hansen, Director
Oregon Department of Environmental
Quality

Robie G. Russell, Regional Administrator
Environmental Protection Agency,
Region 10

DATE

DATE

SUMMARY OF PUBLIC PARTICIPATION

1990 State/EPA Agreement

The public participation process initiated for the 1990 State/EPA Agreement includes: (1) a plan prepared by the Management Services Division of the Department of Environmental Quality and approved by the EPA's Oregon Operations Office; (2) a Notice of Intent to Apply for Federal Aid for the consolidated air, water, and hazardous waste program grant funds distributed through the State Clearinghouse (A-95) process; (3) a public notice of the chance to comment on the Agreement sent directly to the 14 regional councils of government in the state, to Department mailing lists, and published in The Oregonian; (4) a public hearing; (5) a responsiveness summary to comments received during public hearing; and (6) an information report to the EQC on the SEA, including a summary of public comments. The above elements of this process are discussed on the following pages. Specific mailing lists are available from DEQ's Management Services Division.

PUBLIC PARTICIPATION PLAN

For the State/EPA Agreement
Fiscal Year 1990

As outlined in applicable Federal Regulation (46 FR 12: 5737), a detailed public participation plan must be included in the negotiations of the State/EPA agreement for each year. The elements of a successful public participation plan include: IDENTIFICATION of affected and interested parties and groups, OUTREACH to those individuals and groups through a variety of techniques and methods, DIALOGUE between the interested parties, the Department and EPA, ASSIMILATION of the ideas offered by the groups which are involved and offer comments, and FEEDBACK to the interested parties and groups or individuals which comment about the final agreement.

This plan, developed by the Management Services Division of the Oregon Department of Environmental Quality, addresses each of these broad areas with specific groups, listings, timetables, and techniques to accomplish each goal cumulating into the overall public participation plan for the SEA FY 90.

IDENTIFICATION

All Oregonians, along with groups and individuals presently involved in environmental concerns in Oregon, are affected by and the SEA agreement. Many elements of the agreement directly affect the environmental program of Oregon.

DEQ presently uses an advisory committee for each major policy area. Each of these committees is composed of a variety of interest groups, including local governments, public interest groups, environmentalists, unaffiliated citizens, and industrial associations.

Also interested in the DEQ policy are those groups and individuals who comment regularly on proposed environmental rulemaking. As rules are proposed for water quality, air quality, solid waste, or hazardous waste, public comment on the conditions of the rules are solicited. A list of people who have indicated an interest in reviewing the Department's proposed rules is available at DEQ offices.

OUTREACH

1. Methods

Because most of the material is complex, much of the outreach for the SEA is written material distributed through the mail. A 2-page summary of the executive document is prepared. This summary is mailed to individuals who indicate they wish to receive it. The summary indicates that the full executive document is available free of charge from the DEQ Management Services Division. The statewide toll-free number is given, eliminating long distance charges for those who need

additional information. Also, a news release is made announcing the opportunity for public comment at a public hearing and the date of the Environmental Quality Commission (EQC) meeting to discuss the SEA.

2. Content

The outreach material includes background information on the SEA, a timetable of the proposed actions, a summary of the SEA listing the issues, and the name of a specific individual to contact for additional information.

3. Notification

The outreach materials are mailed to interested parties as soon as they are available.

4. Timing

Prior to the mailing, a paid advertisement is used in the Oregonian, the statewide paper of largest circulation, indicating the upcoming opportunity for public comment.

5. Depositories

Copies of the SEA along with the executive document are available at all DEQ offices. DEQ offices are located at:

Headquarters Office

811 SW Sixth Avenue
Portland, Oregon 97204
229-5696 Toll Free 1-800-452-4011

Roseburg Branch Office

1937 W. Harvard Blvd.
Roseburg, Oregon 97470
440-3338

Astoria Branch Office

Clatsop County Courthouse
749 Commercial
P.O. Box 869
Astoria, Oregon 97103
325-8660

Southwest Region

201 W. Main Street
Suite 2-D
Medford, Oregon 97501
776-6010

Willamette Valley Region

750 Front Street N.E. - Suite 120
Salem, Oregon 97310
378-8240

Central Region

2146 NE 4th
Bend, Oregon 97701
388-6146

Coos Bay Branch Office

490 N. 2nd
Coos Bay, Oregon 97420
269-2721

Eastern Region Office

700 SE Emigrant
Suite 330
Pendleton, Oregon 97801
276-4063

DIALOGUE

Dialogue is preceded by the distribution of a summary of the issues and timetable for decision-making. A public hearing to accept testimony from the public is scheduled for April 14, 1989. Written testimony is accepted through June 2, 1989, on which date the Commission receives a summary staff report on the SEA which includes comments from the public hearing, together with agency response.

PUBLIC HEARING REQUIREMENTS

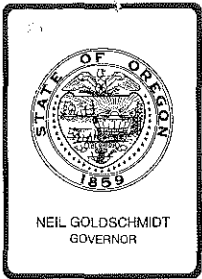
1. Timing: The notice of public hearing is distributed to the interested parties at least 30 days prior to the public hearing. The public hearing notice is distributed to the news media.
2. Content of Notice: The content of the notice clearly identifies the issues to be discussed along with alternatives.
3. Provision of Information: All pertinent information is available to the public.
4. Conduct of the Hearing: The public hearing is conducted by the Management Services Division. The hearings officer provides a report of hearing testimony to the Environmental Quality Commission. The report includes a responsiveness summary.
5. Record of Hearing: The public record remains open until the hearings officer reports to the Environmental Quality Commission. The Commission may request additional testimony or clarification at the time the report is submitted.

RESPONSIVENESS SUMMARIES

The DEQ staff prepares a responsiveness summary for the public participation process used in the SEA. This commentary briefly and clearly documents the agency's consideration of the public's input into the SEA.

The responsiveness summary includes: the type of participation that was carried out, identification of those who participated and their affiliation (if applicable); issues, the public's views, including criticism; and logic of the agency in making its decision and the agency's specific responses to each comment.

Availability of the responsiveness summary is advertised in a paid advertisement in the Oregonian, the statewide paper that has the largest circulation to the affected population.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: March 3, 1989
Agenda Item: J
Division: Water Quality
Section: Construction Grants

SUBJECT: Rule Modification for Preparation of a Final Construction Grants Priority List

PURPOSE: Request Commission authorization to hold a public hearing on rule modifications for the construction grants program (OAR 340-53).

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)

- Authorize Rulemaking Hearing
 - Proposed Rules (Draft) Attachment A
 - Rulemaking Statements Attachment C
 - Fiscal and Economic Impact Statement Attachment C
 - Draft Public Notice Attachment B

- Adopt Rules
 - Proposed Rules (Final Recommendation) Attachment _____
 - Rulemaking Statements Attachment _____
 - Fiscal and Economic Impact Statement Attachment _____
 - Public Notice Attachment _____

- Issue Contested Case Decision/Order
 - Proposed Order Attachment _____

- Other: (specify)

DESCRIPTION OF REQUESTED ACTION:

The Department requests authorization from the Commission to hold a public hearing on modifications to the Construction Grants Rules (OAR 340-53). These rule modifications are needed to allow the Department to end the Construction Grants program in an orderly manner. The modifications will:

- (1) Establish a final list of projects eligible for grant funding;
- (2) Limit projects eligible for grant assistance to those communities with documented water quality problems (Letter Classes A, B, and C on the final construction grant priority list);
- (3) Require communities to request by June 30, 1989 to be placed on the final construction grant priority list;
- (4) Limit total eligible project costs to a maximum of \$1,500,000 for those projects added to the priority list or rerated a Letter Class A, B, or C after the FY89 priority list was approved by the Commission on September 9, 1988; and
- (5) Remove the requirement for the Commission to approve the construction grants priority list.

AUTHORITY/NEED FOR ACTION:

| | |
|---|---------------------|
| <input type="checkbox"/> Required by Statute: _____ | Attachment _____ |
| Enactment Date: _____ | |
| <input type="checkbox"/> Statutory Authority: _____ | Attachment _____ |
| <input checked="" type="checkbox"/> Amendment of Existing Rule: <u>OAR 340-53</u> | Attachment <u>A</u> |
| <input type="checkbox"/> Implement Delegated Federal Program: _____ | Attachment _____ |
| <input type="checkbox"/> Other: _____ | Attachment _____ |
| <input checked="" type="checkbox"/> Time Constraints: (explain) | |

A public hearing on the proposed rule modification has been scheduled for March 15, 1989. The Final Grant Priority List must be submitted to EPA for approval before the FY 90 Federal Fiscal Year begins on October 1, 1989.

Meeting Date: March 3, 1989
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DEVELOPMENTAL BACKGROUND:

| | |
|---|-------------------------------------|
| <input type="checkbox"/> Advisory Committee Report/Recommendation | Attachment <input type="checkbox"/> |
| <input type="checkbox"/> Hearing Officer's Report/Recommendations | Attachment <input type="checkbox"/> |
| <input type="checkbox"/> Response to Testimony/Comments | Attachment <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Prior EQC Agenda Items: | |

EQC Work Session Agenda Item 2 on January 20, 1989

| | |
|--|-------------------------------------|
| <input type="checkbox"/> Other Related Reports/Rules/Statutes: | Attachment <u>D</u> |
| <input type="checkbox"/> Supplemental Background Information | Attachment <input type="checkbox"/> |
| | Attachment <input type="checkbox"/> |

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The proposed rule modifications will limit the number of communities eligible to receive a federal grant for construction of municipal sewerage facilities. At present there are 32 communities which qualify for grant funding under the proposed rule modifications. The Department anticipates that approximately a dozen additional communities may be able to qualify for placement within the fundable portion of the grant priority list before the June 30, 1989 deadline.

By limiting grants, the state would increase the ultimate size of the State Revolving Fund, thereby, expanding the total pool of money available for loans to communities for sewerage projects.

PROGRAM CONSIDERATIONS:

At the January 20, 1989 EQC Work Session the Department presented several options available to the Commission for ending the construction grant program. The Commission chose to limit projects receiving grants by directing the Department to prepare a final construction grants priority list. The Department has modified the construction grant program rules to reflect the alternative chosen by the Commission and now needs to conduct a public hearing on those rule modifications. The proposed rules will assure a definitive end to the sewerage facility construction grant program and provide for a smooth transition into the state revolving fund program.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

An additional consideration not covered at that work session was what type of appeal process should be made available to communities if they disagree with the Department's ranking of their grant project. The alternatives considered were:

1. Allow communities to appeal to the Director for reconsideration. This modification was requested by the Commission at its September 9, 1988 meeting and is reflected in the proposed rule modification.
2. Communities could appeal directly to the Commission for final project consideration. This alternative would require the Commission to evaluate the merits of individual projects.
3. The final grant priority list could be approved by the Commission. This alternative would continue the present system where the Commission approves the grant priority list. Communities would continue to request Commission review of the merits of individual projects before approval of the grant priority list.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission authorize the Department to hold a public hearing on the proposed rule modifications for the construction grants program contained in Attachment A.

This action would allow the construction grant program to continue towards a smooth transition to the State Revolving Fund. The preparation of a final construction grant priority list would give communities planning sewerage works projects a clear understanding of whether they would receive a grant. The Department believes that this alternative is the best approach for providing needed grant funds to small communities and those already in the process of obtaining a grant, while not significantly diminishing the ultimate size of the State Revolving Fund.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The alternative outlined in this staff report would be consistent with the Water Quality Act of 1987 (Clean Water Act Amendments) and with Oregon Revised Statutes. The 1987 Legislature gave the Department the authority to establish a State Revolving Fund, but did not specify how the Department should transition from the construction grant program to the revolving fund program. At the staff level, the Department's efforts have been directed at

Meeting Date: March 3, 1989
Agenda Item: J
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maximizing the revolving fund, subject to the recognition that some remaining projects should be financed with construction grants.

ISSUES FOR COMMISSION TO RESOLVE:

The proposed modifications to the construction grant rules have removed the need for the Commission to adopt the priority list. At issue is whether the Commission would wish to consider appeals by communities regarding their placement on the priority list. Hearing these appeals would require the Commission to evaluate the merits of individual cases. The Commission indicated that they wished to set policy and allow the Department to implement the policy and make determinations on individual projects. The proposed rules allow an appeal to the Director.

INTENDED FOLLOWUP ACTIONS:

Hold public hearing on proposed rule modification on March 15, 1989.

Request approval of rule modifications by the Commission at their April 14, 1989 meeting.

Prepare and mail the proposed final construction grant priority list to interested parties by May 31, 1989.

Prepare and mail the final official construction grant priority list after June 30, 1989.

Approved:

Section:

Division:

Director:

George Davis
W. J. Miller
Jack Kern

Report Prepared By: Richard J. Kepler

Phone: 229-6218

Date Prepared: January 31, 1989

RJK:crw
WC4468
February 3, 1988

MUNICIPAL WASTE WATER
TREATMENT WORKS
CONSTRUCTION GRANTS
PROGRAM

DIVISION 53

DEVELOPMENT AND MANAGEMENT OF THE STATEWIDE SEWERAGE WORKS
CONSTRUCTION GRANTS PRIORITY LIST

PURPOSE

340-53-005

The purpose of these rules is to prescribe procedures and priority criteria to be used by the Department for development and management of a statewide priority list of sewerage works construction projects potentially eligible for financial assistance from U.S. Environmental Protection Agency's Municipal Waste Water Treatment Works Construction Grants Program, Section 201, Public Law 95-0217.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 24-1980, f. 9-29-80, ef. 10-1-80

DEFINITIONS

340-53-010

As used in these regulations unless otherwise required by context:

- (1) "Department" means Department of Environmental Quality. Department actions shall be taken by the Director as defined herein.
- (2) "Commission" means Environmental Quality Commission.
- (3) "Director" means Director of the Department of Environmental Quality or his authorized representatives.
- (4) "Municipality" means any county, city, special service district, or other governmental entity having authority to dispose of sewage, industrial waste, or other wastes, any Indian tribe or authorized Indian Tribal Organization or any combination of two or more of the foregoing.
- (5) "EPA" means U.S. Environmental Protection Agency.

- (6) "Treatment Works" means any facility for the purpose of treating, neutralizing or stabilizing sewage of industrial wastes of a liquid nature, including treatment or disposal plants, the necessary intercepting, outfall and outlet sewers, pumping stations integral to such plants or sewers, equipment and furnishings thereof and their appurtenances.
- (7) "Grant" means financial assistance from the U.S. Environmental Protection Agency Municipal Waste Water Treatment Works Construction Grants programs as authorized by Section 201, Public Law 95-217 and subsequent amendments.
- (8) "Advance" means an advance of funds for a Step 1 or Step 2 project. The advance is equal to the estimated allowance which is expected to be included in a future Step 3 grant award. An advance is made from funds granted to Oregon by EPA; it is not a direct grant by EPA to a municipality.
- (9) "Project" means a potentially fundable entry on the priority list consisting of Step 3 or Step 2 plus 3 treatment works or components or segments of treatment works as further described in OAR 340-53-015(4).
- (10) "Treatment Works Component" means a portion of an operable treatment works described in an approved facility plan including but not limited to:
 - (a) Sewage treatment plant;
 - (b) Interceptors;
 - (c) Sludge disposal or management;
 - (d) Rehabilitation;
 - (e) Other identified facilities.
 - (f) A treatment works component may, but need not, result in an operable treatment works.
- (11) "Treatment Works Segment" means a portion of a treatment works component which can be identified in a contract or discrete sub-item of a contract and may, but need not, result in operable treatment works.
- (12) "Priority List" means all projects in the state potentially eligible for grants listed in rank order.
- (13) "Fundable Portion of the List" means those projects on the priority list which are planned for a grant during the current funding year. The fundable portion of the list shall be not exceed the total funds expected to be available during the current funding year less applicable reserves.
- (14) "Facilities Planning" means necessary plans and studies which directly relate to the construction of treatment works. Facilities planning will demonstrate the need for the proposed

facilities and that they are cost-effective and environmentally acceptable.

- (15) "Step 1 Project" means any project for development of a facilities plan for treatment works.
- (16) "Step 2 Project" means any project for engineering design of all or a portion of treatment works.
- (17) "Step 3 Project" means any project for construction or rehabilitation of all or a portion of treatment works.
- (18) "Eligible Project Costs" means those costs which could be eligible for a grant according to EPA regulations and certified by the Department and awarded by EPA. These costs may include an estimated allowance for Step 1 and/or Step 2 project.
- (19) "Innovative Technology" means treatment works utilizing conventional or alternative technology not fully proven under conditions contemplated but offering cost or energy savings or other advantages as recognized by federal regulations.
- (20) "Alternative Technology" means treatment work or components or segments thereof which reclaim or reuse water, recycle wastewater constituents, eliminate discharge of pollutants, or recover energy.
- (21) "Alternative System for Small Communities" means treatment works for municipalities or portions of municipalities having a population of less than 3,500 and utilizing alternative technology as described above.
- (22) "Funding Year" means a federal fiscal year commencing October 1st and ending September 30th.
- (23) "Current Funding Year" means the funding year for which the priority list is adopted.
- (24) "State Certification" means assurance by the Department that the project is acceptable to the state and that funds are available from the state's allocation to make a grant award.
- (25) "Small Community" means, for the purposes of an advance of allowance for Step 1 or Step 2, a municipality having less than 25,000 population.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 24-1980, f. 9-29-80, ef. 10-1-80; DEQ 15-1982, f. & ef. 7-27-82

PRIORITY LIST DEVELOPMENT

340-53-015

The Department will develop a final statewide priority list of projects potentially eligible for a grant:

- (1) The final statewide priority list shall include:
 - (a) Those projects from the approved FY89 construction grants priority list; and
 - (b) Those projects where a community has requested, before June 30, 1989, placement on the final construction grants priority list and the project is determined to be eligible for funding by the Department.
- (2) The statewide priority list will be developed [prior to the beginning of each funding year] utilizing the following procedures:
 - (a) The Department will determine and maintain sufficient information concerning potential projects to develop the statewide priority list.
 - (b) The Department will develop a proposed final priority list utilizing criteria and procedures set forth in this section.
 - (c) (A) The Department shall distribute the proposed priority list to all interested parties for review. A public hearing will be held concerning the proposed priority list. [prior to Commission adoption.] Public notice and a draft priority list will be provided to all interested parties at least thirty (30) days prior to the hearing. Interested parties include, but are not limited to, the following:
 - (i) Municipalities having projects on the priority list;
 - (ii) Engineering consultants involved in projects on the priority list;
 - (iii) Interested state and federal agencies;
 - (iv) Any other persons who have requested to be on the mailing list.
 - (d) The Department shall allow until June 30, 1989 for review and public comments to be submitted.
 - (A) During the comment period any interested party can request the Department to:

(i) Include a problem not identified on the proposed list; or

(ii) Reevaluate a problem on the proposed priority list.

(e) The Department shall consider all requests submitted during the comment period and at the public hearing before establishing the official statewide final construction grants priority list.

(f) The Department shall distribute the official final construction grants priority list to all interested parties.

(g) If an affected party does not agree with the Department's determination on the final priority list, then the interested party may within 15 days of mailing the final list file an appeal to present their case to the Director. The appeal will be informal and will not be subject to contested case hearing procedures.

[(B) Interested parties will have an opportunity to present oral or written testimony at or prior to the hearing.]

[(d) The Department will summarize and evaluate the testimony and provide recommendations to the Commission.]

[(e) The Commission will adopt the priority list at a regularly scheduled meeting.]

(2) (a) The priority list will consist of a listing of all projects in the state potentially eligible for grants listed in ranking order based on criteria set forth in Table 1. Table 1 describes five (5) categories used for scoring purposes as follows:

- (A) Project Class,
- (B) Regulatory Emphasis,
- (C) Stream Segment Rank,
- (D) Population Emphasis,
- (E) Type of Treatment Component or Components.

(b) The score used in ranking a project consists of the project class identified by letter code plus the sum of the points from the remaining four categories. Projects are ranked by the letter code of the project class with "A" being highest and within the project class by total points from highest to lowest.

(3) The priority list entry for each project will include the following:

- (a) Priority rank consisting of the project's sequential rank on the priority list. The project having the highest priority is ranked number one (1).
 - (b) EPA project identification number.
 - (c) Name and type of municipality.
 - (d) Description of project component.
 - (e) Project step.
 - (f) Grant application number.
 - (g) Ready to proceed date consisting of the expected date when the project application will be complete and ready for certification by the Department. For the current funding year, the ready to proceed date will be based upon planning and design schedules submitted by potential applicants. For later funding years, the ready to proceed date may be based upon information available to the Department.
 - (h) Target certification date consisting of the earliest estimated date on which the project could be certified based on readiness to proceed and on the Department's estimate of federal grant funds expected to be available. The target certification date of the current funding year will be assigned based on a ready to proceed date. In the event actual funds made available differ from the Department's estimate when the list was adopted the Department may modify this date without public hearing to reflect actual funds available and revised future funding estimates.
 - (i) Estimated grant amount based on that portion of project cost which is potentially eligible for a grant as set forth in OAR 340-53-020.
 - (j) The priority point score used in ranking the projects.
- (4) The Department will determine the scope of work to be included in each project prior to its placement on the priority list. Such scope of work may include the following:
- (a) Design (Step 2) and construction of complete treatment works, (Step 2 plus 3); or
 - (b) Construction of one or more complete waste treatment systems; or
 - (c) Construction of one or more treatment works segments of a treatment works component.

- (5)
 - (a) When determining the treatment works components or segments to be included in a single project, the Department will consider:
 - (A) The specific treatment works components or segments that will be ready to proceed [during a funding year]; and
 - (B) The operational dependency of other components or segments on the components or segment begin considered; and
 - (C) The cost of components or segments relative to allowable project grant. In no case will the project included on the priority list, as defined by OAR 340-53-010(9) exceed ten (10) million dollars [in any given funding year]. [Where a proposed project would exceed this amount the scope of work will be reduced by limiting the number of components or dividing the components into segments. The total grant for treatment works to a single applicant is not however limited by this subsection.]
 - (b) The Department shall have final discretion relative to scope of work or treatment works components or segments which constitute a project.
- (6) Components or segment not included in a project for a particular funding year will be assigned a target certification date in subsequent funding year. Within constraints of available and anticipated funds, projects will be scheduled so as to establish a rate of progress for construction while assuming a timely and equitable obligation of funds statewide.
- (7) A project may consist of an amendment to a previously funded project which would change the scope of work significantly and thus constitute a new project.
- (8) The Director may delete a project from the priority list if:
 - (a) It has received full funding;
 - (b) It is no longer entitled to funding under the approved system;
 - (c) EPA has determined that the project is not needed to comply with the enforceable requirements of the Clean Water Act or the project is otherwise ineligible.
- (9) If the priority assessment of a project within a regional 208 areawide water treatment management planning area conflicts with the priority list, the priority list has precedence. The Director will, upon request from a 208 planning agency,

meet to discuss the project [providing the request for such a meeting is submitted to the Director prior to Commission approval of the priority list].

Stat. Auth.: OAR Ch. 468

Hist.: DEQ 24-1980, f. 9-29-80 ef. 10-1-80; DEQ 28-1981 (Temp), f. & ef. 10-19-81; DEQ 15-1982, f. & ef. 7-27-82; DEQ 14-1983, f. & ef. 8-26-83

(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.)

ELIGIBLE COSTS AND LIMITATIONS

340-53-020

For each project included on the priority list, the Department will estimate the costs potentially eligible for a grant and estimated federal share.

- (1) Where state certification requirements differ from EPA eligibility requirements, the more restrictive shall apply.
- (2) Except as provided in section (3) of this rule, eligible costs shall generally include Step 1, Step 2, and Step 3 costs related to an eligible treatment works, treatment works components or treatment works segments as defined in federal regulations.
- (3) The following will not be eligible for state certification:
 - (a) The cost of collection systems except for those which serve an area where mandatory health hazard annexation is required pursuant to ORS 222.850 to 222.915 or where elimination of waste disposal wells is required by OAR 340-44-019 to 340-44-044. In either case, a Step 1 grant for the project must have been certified prior to September 30, 1979.
 - (b) Step 2 or Step 3 costs associated with advanced treatment components.
 - (c) The cost of treatment components not considered by the Department to be cost effective and environmentally sound.
- (4) The estimated grant amount shall be based on a percentage of the estimated eligible cost. The percentage is seventy-five (75) percent of the estimated eligible cost until FY 1985, when it is reduced to fifty-five (55) percent of the estimated eligible cost for new projects. The Commission may reduce the percentage to fifty (50) percent as allowed by federal law or regulation. The Department shall also examine other alternatives for reducing the extent of grant participation in individual projects for possible implementation beginning in FY 1982. The intent is to spread

available funds to address more of the high priority needs in the state.

- (5) Projects placed on the priority list or rerated a Letter Class A, B or C after the approval of the FY89 priority list, by the Commission on September 9, 1988, shall not have total eligible project costs of more than \$1,500,000.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 24-1980, f. 9-29-80, ef. 10-1-80; DEQ 15-1982, f. & ef. 7-27-82

ESTABLISHMENT OF SPECIAL RESERVES

340-53-025

From the total funds allocated to the state the following reserves will be established for each funding year:

- (1) Reserve for grant increases of five (5) percent.
- (2) Reserve for Step 1 and Step 2 grant advances of up to ten (10) percent. This reserve shall not exceed the amount estimated to provide advances for eligible small communities projected to apply for a Step 3 or Step 2 plus 3 grant [in the current funding year and one funding year thereafter].
- (3) Reserve for alternative components of projects for small communities utilizing alternative systems of four (4) percent.
- (4) Reserve for additional funding of projects involving innovative or alternative technology of four (4) percent.
- (5) Reserve for water quality management planning of not more than one percent of the state's allotment nor less than \$100,000.
- (6) Reserve for state management assistance of up to four percent of the total funds authorized for the state's allotment.
- (7) Reserve for capitalization of state revolving fund in accordance with the following:
 - (a) FY87 - up to fifty percent.
 - (b) FY88 - up to seventy-five (75) percent.
 - (c) FY89-90 - not less than fifty (50) percent and up to one hundred (100) percent.
 - (d) FY91-94 - one hundred (100) percent.
- (8) Reserve for nonpoint source management planning of not more than 1 percent of the state's allotment nor less than \$100,000.
- (9) The balance of the state's allocation will be the general allotment.

(10) The Director may at his discretion utilize funds recovered from prior year allotments for the purpose of:

- (a) Grant increases; or
- (b) Conventional components of small community projects utilizing alternative systems; or
- (c) The general allotment.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 24-1980, f. 9-29-80, ef. 10-1-80; DEQ 15-1982, f. & ef. 7-27-82; DEQ 14-1983, f. & ef. 8-26-83; DEQ 3-1987, f. & ef. 2-20-87; DEQ 16-1987, f. & ef. 8-12-87

USE OF DISCRETIONARY AUTHORITY

340-53-027

The Director may at the Director's discretion utilize up to twenty (20) percent of annual allotment for replacement or major rehabilitation of existing sewer systems provided:

- (1) The project is on the fundable portion of the state's [current year] priority list; and
- (2) The project meets the enforceable requirements for the Clean Water Act; and
- (3) The project's facilities plan must show major sewer replacement or rehabilitation will reduce Infiltration and Inflow (I/I) and minimize or eliminate surface or underground water pollution. In addition, the project must be more cost effective than other alternatives for solving the identified water quality problems.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 20-1984, f. & ef. 11-8-84; DEQ 16-1987 f. & ef. 8-12-87

PRIORITY LIST MANAGEMENT

340-53-030

The Department will select projects to be funded from the priority list as follows:

- (1) After [Commission adoption and] EPA acceptance of the priority list, allocation of funds to the state and determination of the funds available in each of the reserves, final determination of the fundable portion of the priority list will be made. The fundable portion of the list will include the following:

(a) Those projects with demonstrated water quality problems as denoted by Letter Class A, B or C on the final construction grants priority list; and

(b[a]) Sufficient projects selected according to priority rank to utilize that portion of the funds available for grants from [identified as] the state's general allotment. [; and]

[(b) Additional projects involving alternative systems for small communities as necessary to utilize funds available in that reserve.]

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

[(3)] Projects included on the priority list but not included within the fundable portion of the list will constitute the planning portion of the list. Projects on the planning portion will only be offered grant funding, in rank order, in the event there were insufficient State Revolving Fund (SRF) projects to allocate the state's federal allotment and as allowed by federal law.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 24-1980, f. 9-29-80, ef. 10-1-80; DEQ 15-1982, f. & ef. 7-27-82

PRIORITY LIST MODIFICATION AND BYPASS PROCEDURE

340-53-035

(1) The Department shall [may] not modify or add projects to the priority list after the Department declares the final construction grants priority list official and EPA has accepted the list, except as noted under OAR 340-53-015(8). [or bypass projects as follows:]

[(1) The Department may add to or rerank projects on the priority list after the adoption of the priority list but prior to the approval of the priority list for the next year providing:

(a) Notice of the proposed action is provided to all affected lower priority projects.

(b) Any affected project may within 20 days of receiving adequate notice request a hearing before the Commission provided that such hearing can be arranged before the end of the current funding year.]

(2) The Department will initiate bypass procedures when any project on the fundable portion of the list is not ready to proceed [during the funding year]:

- (a) The determination will be based on quarterly progress reports.
- (b) Written notice will be provided to the applicant of intent to bypass the project.
- (c) [An applicant may request a hearing on the proposed bypass within 20 days of adequate notice. If requested, the Director will schedule a hearing before the Commission within 60 days of the request, provided that such hearing can be arranged before the end of the current funding year.]
- [(d)] If a project is bypassed, it will maintain its priority point rating and remain eligible for grant funding until [for consideration in future years. If a project is bypassed for two consecutive years, the Commission may remove it from the priority list] either the project is funded or September 30, 1991 when federal sewerage construction grant funds are no longer available.
- (d[e]) Department failure to certify a project not on the fundable portion of the list or for which funds are otherwise unavailable will not constitute a "bypass".

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 24-1980, f. 9-29-80, ef. 10-1-80; DEQ 15-1982, f. & ef. 7-27-82; DEQ 14-1983, f. & ef. 8-26-83

TABLE 1
(340-53-015)

CONSTRUCTION GRANTS PRIORITY CRITERIA
PROJECT CLASS

Letter
Code

Description

- A. Project will minimize or eliminate surface or underground water pollution where:
1. Water quality standards are violated repeatedly; or
 2. Beneficial uses are impaired or may be damaged irreparably.
- In addition:
1. The EQC by rule OAR 340-44-005 to 440-040, had mandated elimination of discharge or inadequately treated waste to disposal wells; or
 2. The Administrator of the Health Division or the EQC has certified findings of fact which conclude that:
 - a. Water pollution or beneficial use impairment exists; and
 - b. Hazard to public health exists.
- Documentation required includes:
1. Field investigations;
 2. Public Notice and bearing; and
 3. Written findings of fact.
- B. Project will minimize or eliminate surface or underground water pollution where:
1. Water quality standards are violated repeatedly; or
 2. Beneficial uses are impaired or may be damaged irreparably.
- Documentation required includes:
1. Actual written documentation of existing water use impairment; or
 2. Actual written documentation of repeated violation of standards.
- C. Project is required to insure treatment capability to comply with water quality standards including:
1. Minimum federal effluent guidelines established by rule pursuant to PL 95-217; or
 2. Effluent standards established in an issued WPCF or NPDES permit; or
 3. Treatment levels or effluent standards that would be placed in a permit to comply with state or federal regulation (for a source not presently under permit).

Letter
Code

Description

Documentation required includes:

Actual written documentation of the applicable guideline, standard, permit condition, or other regulatory requirement.

D. Project is necessary to minimize or eliminate pollution of surface or underground waters from:

1. Nonpoint sources where malfunctioning subsurface sewage disposal systems in developed areas are a contributing factor; or
2. Point sources where infrequent discharges above permitted levels are a contributing factor.

Documentation required includes:

1. Sufficient information to suggest a problem, but
2. Insufficient data to conclusively demonstrate the problem. Facility planning is expected to provide additional documentation.

E. Project is desirable for prevention of potential water pollution problem.

Documentation required includes:

1. Recognition that a problem could develop in the future; and
2. Lack of information to suggest a present water quality problem.

Regulatory Emphasis
Points

Description

150 Project received a limited time extension to meet the 1977 secondary treatment goals of the Clean Water Act.

Documentation required includes:

1. Addendum to the NPDES permit extending the compliance date; or
2. Stipulated consent agreement indicating noncompliance. Finding must have been made prior to January 1, 1978.

130 Project is necessary for immediate correction of public health hazard through extraordinary measures such as:

1. Annexation; or
2. Service district formation.

Documentation required includes:

1. EQC order; or
2. Certification of public health hazard by the Administrator of the Health Division pursuant to ORS 431.705 et.seq. or 222.850 et.seq.

Points

Description

120

Project is necessary to eliminate a voluntary or involuntary moratorium, including:

1. Involuntary connection limitations to a centralized facility; or
2. EQC rule that restricts issuance of subsurface disposal permits for a specific geographic area; or
3. Voluntary limitation on connection to a centralized facility or construction of subsurface disposal systems. Voluntary moratorium must meet the following conditions:
 - a. The moratorium was formally enacted prior to August 1, 1979; and
 - b. It attempts to limit flow to a central facility which is at or beyond 90 percent capacity; and
 - c. The jurisdiction has a medium to high growth rate and therefore requires preventive pollution control action.

Documentation required includes:

1. Rule or order establishing involuntary moratorium; or
2. Order, ordinance, or other documentation of voluntary moratorium.

90

Project is necessary because of the potential for regulatory action identified by:

1. NPDES permit limitations or conditions which would be included in a permit when issued or amended; or
2. DEQ approval of a facility plan including a determination of such potential; or
3. A sanitary survey conducted by the Health Division or the DEQ.

Documentation required includes:

DEQ written concurrence based on the above.

50

Project is needed because of probable water quality problems identified through preliminary screening of problem and water quality concerns.

Documentation required includes:

Written suggestion by DEQ.

0 No immediate need for the project has been identified. Background information is either insufficient or unavailable to document the existence of present water quality problems.

STREAM SEGMENT RANK

Stream Segment ranking points shall be assigned based on the formula:

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

where:

BR = Basin Rank (1 to 19) based on the total population within the Oregon portion of the river basin. The basin having the greatest population is ranked number 1.

n = Number of stream segments in the particular basin.

SR = Segment rank within basin as indicated in the statewide water quality management plan.

Following is a listing of basin ranks, stream segment ranks, and computed stream segment ranking points:

Basin Rank

| Basin | 1978 Population | No. of Stream Segments | Basin Rank |
|----------------------------|--------------------|------------------------------|---------------|
| Willamette | 1,672,000 | 23 | 1 |
| Rogue | 180,100 | 4 | 2 |
| Umpqua | 84,700 | 3 | 3 |
| Deschutes | 76,600 | 4 | 4 |
| South Coast | 76,300 | 5 | 5 |
| North Coast/Lower Columbia | 66,440 | 18 | 6 |
| Klamath | 58,200 | 5 | 7 |
| Umatilla | 50,000 | 3 | 8 |
| Mid Coast | 44,630 | 10 | 9 |
| Hood River | 34,200 | 4 | 10 |
| Grande Ronde | 30,100 | 3 | 11 |
| Malheur River | 22,480 | 1 | 12 |
| Sandy | 18,530 | 3 | 13 |
| Powder | 17,200 | 4 | 14 |
| John Day | 12,250 | 2 | 15 |
| Walla Walla | 10,300 | 2 | 16 |
| Malheur | 7,650 | 3 | 17 |
| Goose and Summer Lakes | 6,900 | 2 | 18 |
| Owyhee | 3,420 | 2 | 19 |

Stream Segment Ranking Points

| <u>Segment</u> | <u>Segment Rank</u> | <u>Points</u> |
|--------------------------------------|---------------------|---------------|
| No. 1, Willamette Basin | | |
| Tualatin | 1 | 95.73 |
| Willamette (River Mile | 2 | 93.45 |
| Willamette (River Mile 84-186) | 3 | 91.18 |
| South Yamhill River | 4 | 88.91 |
| North Yamhill River | 5 | 86.64 |
| Yamhill River | 6 | 84.36 |
| Pudding River | 7 | 82.09 |
| Molalla River | 8 | 79.82 |
| S. Santiam River | 9 | 77.55 |
| Santiam River and N. Santiam | 10 | 75.27 |
| Coast Fork Willamette River | 11 | 73.00 |
| Middle Fork Willamette River | 12 | 70.73 |
| Clackamas River | 13 | 68.45 |
| McKenzie River | 14 | 66.10 |
| Rickreall Creek | 15 | 63.91 |
| Luckiamute River | 16 | 61.64 |
| Marys River | 17 | 59.36 |
| Galapooia River | 18 | 57.09 |
| Long Tom River | 19 | 54.82 |
| Columbia Slough | 20 | 52.55 |
| Thomas Creek | 21 | 50.27 |
| Remaining Willamette Basin Streams | 22 | 48.00 |
| No. 2, Rogue Basin | | |
| Bear Creek and Tributaries | 1 | 83.50 |
| Applegate River | 2 | 71.00 |
| Middle Rogue | 3 | 58.50 |
| Remaining Rogue Basin Streams | 4 | 46.00 |
| No. 3, Umpqua Basin | | |
| South Umpqua River | 1 | 77.33 |
| Cow Creek | 2 | 60.67 |
| Remaining Umpqua Basin Streams | 3 | 44.00 |
| No. 4, Deschutes Basin | | |
| Crooked River | 1 | 79.50 |
| Deschutes River (River Mile 120-166) | 2 | 67.00 |
| Deschutes River (River Mile 0-120) | 3 | 54.50 |
| Remaining Deschutes Basin Streams | 4 | 42.00 |

| Segment | Segment Rank | Points |
|--|--------------|--------|
| No. 5, South Coast Basin | | |
| Coos Bay | 1 | 80.00 |
| Coos River | 2 | 70.00 |
| Coquille River (River Mile 0-35) | 3 | 60.00 |
| Coquille River (River Mile 35-Source) | 4 | 50.00 |
| Remaining South Coast Basin Streams | 5 | 40.00 |
| No. 6, North Coast/Lower Columbia Basin | | |
| Lewis and Clark River | 1 | 85.22 |
| Klatskanie River | 2 | 82.44 |
| Wilson River (River Mile 0-7) | 3 | 79.88 |
| Trask River (River Mile 0-6) | 4 | 76.88 |
| Skipanon River | 5 | 74.10 |
| Nestucca River (River Mile 0-15) | 6 | 71.32 |
| Nehalem River | 7 | 68.54 |
| Wilson River (River Mile 7+) | 8 | 65.76 |
| Trask River (River Mile 6+) | 9 | 62.98 |
| Nestucca River (River Mile 15+) | 10 | 60.20 |
| Nehalem Bay | 11 | 57.42 |
| Tillamook Bay | 12 | 56.64 |
| Tillamook River (River Mile 0-15) | 13 | 51.86 |
| Nestucca Bay | 14 | 49.08 |
| Necanicum River | 15 | 46.30 |
| Tillamook River (River Mile 15+) | 16 | 43.54 |
| Netarts Bay | 17 | 40.74 |
| Remaining North Coast/Lower Columbia Basin Streams | 18 | 38.00 |
| No. 7, Klamath Basin | | |
| Lost River | 1 | 76.00 |
| Klamath River (River Mile 210-250) | 2 | 66.00 |
| Williamson | 3 | 56.00 |
| Sprague | 4 | 46.00 |
| Remaining Klamath Basin Streams | 5 | 36.00 |
| No. 8, Umatilla Basin | | |
| Umatilla River | 1 | 67.33 |
| Columbia River (Umatilla Basin) | 2 | 50.67 |
| Remaining Umatilla Basin Streams | 3 | 34.00 |
| No. 9, Mid-Coast Basin | | |
| Siuslaw Bay | 1 | 77.00 |
| Yaquina Bay | 2 | 72.00 |
| Siletz River | 3 | 67.00 |
| Yaquina River | 4 | 62.00 |
| Alsea River | 5 | 57.00 |

| Segment | Segment Rank | Points |
|--|--------------|--------|
| No. 9, Mid-Coast Basin (Continued) | | |
| Siuslaw River | 6 | 52.00 |
| Alsea Bay | 7 | 47.00 |
| Salmon River | 8 | 42.00 |
| Siletz Bay | 9 | 37.00 |
| Remaining Mid-Coast Basin Streams | 10 | 32.00 |
| No. 10, Hood Basin | | |
| Hood River Main Stem | 1 | 67.50 |
| Columbia River (Hood Basin) | 2 | 55.00 |
| Hood River East, Middle and West Forks | 3 | 42.00 |
| Remaining Hood Basin Streams | 4 | 30.00 |
| No. 11, Grande Ronde Basin | | |
| Grande Ronde River | 1 | 61.33 |
| Wallowa River | 2 | 44.67 |
| Remaining Grande Ronde Basin Streams | 3 | 28.00 |
| No. 12, Malheur Basin | | |
| Malheur River | 1 | 26.00 |
| No. 13, Powder Basin | | |
| Snake River (Powder Basin) | 1 | 61.50 |
| Powder River | 2 | 49.00 |
| Burnt River | 3 | 36.50 |
| Remaining Powder Basin Streams | 4 | 24.00 |
| No. 14, Sandy Basin | | |
| Columbia River (Sandy Basin) | 1 | 55.33 |
| Sandy River | 2 | 38.67 |
| Remaining Sandy Basin Streams | 3 | 22.00 |
| No. 15, John Day Basin | | |
| John Day River | 1 | 45.00 |
| Remaining John Day Basin Streams | 2 | 20.00 |
| No. 16, Walla Walla Basin | | |
| Walla Walla River | 1 | 43.00 |
| Remaining Walla Walla Basin Streams | 2 | 18.00 |

| <u>Segment</u> | <u>Segment Rank</u> | <u>Points</u> |
|--|---------------------|---------------|
| No. 17, Malheur Lake Basin | | |
| Silvies River | 1 | 49.33 |
| Donner & Blitzen River | 2 | 32.67 |
| Remaining Malheur Lake Basin Streams | 3 | 16.00 |
| No. 18, Goose and Summer Lakes Basin | | |
| Chewaucan River | 1 | 39.00 |
| Remaining Goose and Summer Lakes Basin Streams | 2 | 14.00 |
| No. 19, Owyhee Basin | | |
| Owyhee River | 1 | 17.00 |
| Remaining Owyhee Basin Streams | 2 | 12.00 |

Population Emphasis

Population emphasis points shall be assigned on the basis of the formula:

$$\text{Points} = \text{Population Served}^2 \log 10$$

where:

Population Served represents the existing Oregon population that would be initially served by the project if it were in operation.

Project Type

| <u>Description</u> | <u>Points</u> |
|---|---------------|
| Secondary Treatment and BPWTT | 10 |
| Major Sewer System Rehabilitation | 9 |
| Interception of Existing Discharge | 8 |
| Infiltration/Inflow Correction | 7 |
| Interceptor to Serve Existing Development | 6 |
| Treatment More Stringent than Secondary | 5 |
| Correction of Combined Sewer Overflows | 3 |
| Interceptor to Serve New Development | 2 |
| New Collectors | 1 |

*Oregon Department of Environmental Quality***A CHANCE TO COMMENT ON ...****Rule Modifications to the Construction Grants Program
Notice of Public Hearing**

Date Prepared: 2/2/89
 Notice Issued: 2/15/89
 Comments Due: 3/17/89

**WHO IS THE
APPLICANT:**

Cities, counties and special districts seeking U.S. Environmental Protection agency grants for sewerage projects are directly affected.

**WHAT IS
PROPOSED:**

The Department proposes to modify the Construction Grants Program Rules (OAR 340-53). The proposed rule modifications will:

- (1) Establish a final construction grant priority list of projects eligible for funding;
- (2) Limit projects eligible for grant assistance to those communities with documented water quality problems (Letter Class A, B, or C on the final construction grants priority list);
- (3) Require communities to request by June 30, 1989 to be placed on the final construction grant priority list;
- (4) Limit total eligible project costs to \$1,500,000 for those projects rated a \letter Class A,B, or C after the FY89 priority list was approved on September 9, 1988; and
- (5) Remove the requirement for the Commission to approve the construction grants priority list.

**WHAT ARE THE
HIGHLIGHTS:**

In 1987, when the Clean Water Act was reauthorized, Congress chose to phase out the construction grant program and replace it with a State Revolving Fund (SRF) program. Adoption of these rule modifications would enable the Department to make a smooth transition from the grant program to the SRF and be consistent with Congress's intent to phase out the grant program.

The rule modifications would establish a final priority list of projects to receive grant funding. Grant funds would be available to

B - 1



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

FOR FURTHER INFORMATION:

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

11/1/86

eligible projects, until September 30, 1991, provide all requirements for a grant are met. Projects eligible for grant funds would be limited to Letter Class A, B, or C projects. Projects placed on the priority list or reranked after the FY89 priority list was adopted by the Commission will be limited to \$1,500,00 of eligible costs.

HOW IS THE

PUBLIC AFFECTED: Adoption of the rule modifications will affect communities financing water pollution control facilities.

HOW TO COMMENT: Public Hearing -- Wednesday, March 15, 1989, 10:00 a.m. at the following address:

Department of Environmental Quality
Tenth Floor Conference Room 10A
811 S.W. Sixth Avenue
Portland, Oregon 97204 Telephone: 229-6218

The proposed rule modifications will be mailed to all cities, counties, sanitary or sewer districts, and interested persons on February 15, 1988. Written comments should be presented to DEQ, Construction Grants Section, 811 S.W. Sixth Avenue, Portland, Oregon 97204. The comment period will close at 5:00 p.m., March 17, 1989.

WHAT IS THE

NEXT STEP:

After the public hearing, the Environmental Quality Commission may adopt rules identical to those proposed, modify the rules or decline to act. The Commission's deliberations should come on April 14, 1989 as part of the agenda of a regularly scheduled Commission meeting.

ATTACHMENTS:

Statement of Need for Rules (including Fiscal Impact)
Statement of Land Use Consistency

RJK:crw
WC4470

Agenda Item -, March 3, 1989, EQC Meeting

STATEMENT OF NEED FOR RULEMAKING

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

LEGAL AUTHORITY

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

NEED FOR THE RULE

Rule modifications are necessary to allow the Department to implement a strategy adopted by the Commission to transition from construction grants to the State Revolving Fund program.

PRINCIPAL DOCUMENTS RELIED UPON IN THIS RULEMAKING

- (a) Public Law 92-500, as amended
- (b) OAR 340 Division 53
- (c) Agenda Item 2, Alternatives for Transition from the Construction Grants Program to the State Revolving Fund Program, Commission Work Session, January 19, 1989.

FISCAL AND ECONOMIC IMPACT OF RULEMAKING

The proposed rule modifications to OAR 340-53, Priority List Development, implement a transition from construction grants to a State Revolving Fund loan program. The grant program now provides for 55% grants for eligible project costs. Eligibility is limited major project components such as the sewage treatment plant, interceptor sewers, major pump stations, and infiltration/inflow correction. The revolving fund program will provide 3% loans up to 20 years, and 0% loans up to 5 years. Project eligibility is increased to include reserve capacity (20 year growth projections), collector sewers and pump stations, and advanced waste treatment.

Overall Impact

The rule changes will not affect project scope, project size, or project cost - projects are constructed to eliminate water quality problems, regardless of financing mechanisms. In addition, projects funded either by grants or by loans must proceed from an approved facility plan which requires

a cost effective analysis and an environmental impact assessment. Because the project cannot change, project capital costs, project operating costs, and project benefits will be the regardless of the financing program.

Because there will be a change in financing from grants to loans, and because eligibility will change, the local government share of the project cost will not be the same. This may result in a negative fiscal impact (increased costs to local government) or a positive fiscal impact (decreased costs to local government). The impact can only be determined from a project by project evaluation.

Examples of cost to Local Government--three examples.

| | |
|--|-------------|
| Example 1: Sewage Treatment Plant Improvements | \$1,000,000 |
| Major Interceptors and Pump Stations | \$ 500,000 |
| Infiltration/Inflow Correction | \$ 500,000 |
| | ----- |
| | \$2,000,000 |

| | |
|---------------------------|-------------|
| a. Construction Grants | |
| Eligible Costs | \$2,000,000 |
| Grant | \$1,100,000 |
| Cost to Local Government | \$ 900,000 |
| Annual Cost, 20 years, 9% | \$ 98,600 |

| | |
|---------------------------|-------------|
| b. Construction Loans | |
| Eligible Costs | \$2,000,000 |
| Cost to Local Government | \$2,000,000 |
| Annual Cost, 20 years, 3% | \$ 134,000 |

| | |
|--|-------------|
| Example 2: Sewage Treatment Plant Improvements | \$1,000,000 |
| Major Interceptors and Pump Stations | \$ 500,000 |
| Infiltration/Inflow Correction | \$ 500,000 |
| Reserve Capacity | \$ 600,000 |
| | ----- |
| | \$2,600,000 |

| | |
|---------------------------|-------------|
| a. Construction Grants | |
| Eligible Costs | \$2,000,000 |
| Grant | \$1,100,000 |
| Cost to Local Government | \$1,500,000 |
| Annual Cost, 20 years, 9% | \$ 164,000 |

| | |
|---------------------------|-------------|
| b. Construction Loans | |
| Eligible Costs | \$2,600,000 |
| Cost to Local Government | \$2,000,000 |
| Annual Cost, 20 years, 3% | \$ 174,800 |

| | |
|--|--------------|
| Example 3: Sewage Treatment Improvements | \$2,000,000 |
| Major Interceptors and Pump Stations | \$ 500,000 |
| Infiltration/Inflow Correction | \$ 500,000 |
| Reserve Capacity | \$ 600,000 |
| Collector Sewers | \$ 400,000 |
| | ----- |
| | \$ 3,000,000 |
| a. Construction grants | |
| Eligible Costs | \$2,000,000 |
| Grant | \$1,100,000 |
| Cost to Local Government | \$1,900,000 |
| Annual Cost, 20 years, 9% | \$ 208,100 |
| b. Construction Loans | |
| Eligible Costs | \$3,000,000 |
| Cost to Local Government | \$3,000,000 |
| Annual Cost, 20 years, 3% | \$ 201,700 |

In the examples, annual costs to local governments are generally greater with loan financing than annual costs with grant financing. The loan program becomes more attractive however, if the project contains components which are not grant eligible but which are loan eligible. Generally, communities which are growing rapidly can take advantage of the loan programs increased eligibility. The fiscal impact on these communities, from the transition to loans, should not be significant.

Significant Impacts

Small rural communities, which are not experiencing population and commercial growth, will be significantly impacted by termination of the grant program. It will be difficult to finance 100% of the project costs with loans. Preliminary evaluations of small communities' financial capability suggest that user charges necessary to make loan payments may range from \$40 to \$60 per month for a typical project. These rates will significantly impact ratepayers, particularly homeowners and small businesses.

The Commission recognizes the need to provide grant funds for small rural communities. An amount of \$25 million has been set-aside to fund remaining projects on the grant priority list which have documented water quality problems. These projects are primarily for rural communities; no projects are for communities over 10,000 in population, and most communities are less than 5,000 in population. The \$25 million set-aside should be sufficient to fund remaining projects.

No Action Alternative

The Commission could decide not to approve proposed rule changes and not to implement the transition strategy. In this case an additional \$19 million in grant funds would be available. This course of action is not recommended because \$25 million is sufficient to fund the remaining projects on the grant priority list which address documented water quality problems. An additional \$19 million for construction grants would severely limit the size of the revolving fund.

LAND USE CONSISTENCY

The proposed rule modifications appears to be consistent with all statewide planning goals. Specifically, the rule modifications comply with Goal 6 because they allow implementation of a program to provide loans for water pollution control facilities, thereby contributing to the protection of water quality. The rule changes comply with Goal 11 because they assist communities in financing needed sewage collection and treatment facilities.

Public comment on the proposed rule modifications is invited and may be submitted in the same manner described in the accompanying Public Notice of rule modification.

| |
|--|
| WORK SESSION REQUEST FOR EQC DISCUSSION |
|--|

Meeting Date: 1/19/89
 Agenda Item: 2
 Division: WQ
 Section: CG

SUBJECT:

Alternatives for Transition from the Construction Grants Program to the State Revolving Fund Program.

PURPOSE:

The Department requests EQC direction on how the Construction Grants Program should be phased out and what sewerage works projects should be eligible for the remaining grant funds.

ACTION REQUESTED:

- Work Session Discussion
 General Program Background
 Program Strategy
 Proposed Policy
 Potential Rules
 ___ Other: (specify)
- ___ Authorize Rulemaking Hearing
 Proposed Rules (Draft) Attachment ___
 Rulemaking Statements Attachment ___
 Fiscal and Economic Impact Statement Attachment ___
 Draft Public Notice Attachment ___
- ___ Adopt Rules
 Proposed Rules (Final Recommendation) Attachment ___
 Rulemaking Statements Attachment ___
 Fiscal and Economic Impact Statement Attachment ___
 Public Notice Attachment ___
- ___ Issue Contested Case Decision/Order
 Proposed Order Attachment ___
- ___ Other: (specify)

Meeting Date: 1/19/89
Agenda Item: 2
Page 2

AUTHORITY/NEED FOR ACTION:

- Pursuant to Statute: _____ Attachment _____
 Enactment Date: _____
 Amendment of Existing Rule: _____ Attachment _____
 Implement Delegated Federal Program: _____ Attachment _____
 Department Recommendation: _____ Attachment _____
 Alternatives for transition from the
 Construction Grants Program to a State
 Revolving Fund Attachment A
 Other: Attachment _____
 Time Constraints: (explain)

DESCRIPTION OF REQUESTED ACTION:

Provide direction to the Department for transition from the Construction Grant Program to the State Revolving Fund. This will be used to determine which sewerage facility projects will be eligible for construction grant funding.

DEVELOPMENTAL BACKGROUND:

- Department Report (Background/Explanation) Attachment B
 Advisory Committee Report/Recommendation Attachment _____
 Hearing Officer's Report/Recommendations Attachment _____
 Response to Testimony/Comments Attachment _____
 Prior EQC Agenda Items:
 Other Related Reports/Rules/Statutes:
 Construction Grant and State Revolving
 Fund Projections Attachment C

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

Any of the alternatives outlined in this staff report would be consistent with the Water Quality Act of 1987 (Clean Water Act Amendments) and with Oregon Revised Statutes. The 1987 Legislature gave the Department the authority to establish a State Revolving Fund, but did not specify how the Department should transition from the construction grant program to the revolving fund program. At the staff level, the Department's efforts have been directed at maximizing the revolving fund,

subject to the recognition that some remaining projects should be financed with construction grants.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The proposed alternative will limit the number of communities eligible to receive a federal grant for construction of municipal sewerage facilities. By limiting grants, the state would increase the ultimate size of the State Revolving Fund, thereby, expanding the total pool of money available for loans to communities for sewerage projects. The Commission should take into account several factors when considering a transition strategy.

1. The primary advantage of the grant program has been that it provides a source of funds that is not repaid. However, the advantages of the grant program have been reduced by diminished federal participation (75% grant funding to 55%), and by limiting the portions of a project eligible for grant financing.
2. The SRF will provide low interest loans for 100 percent of a project's costs. The primary disadvantage is that the loans must be repaid.
3. The transition from grant financing to loan financing amounts to a tradeoff between funding of sewerage facilities now and in the future. Funds allocated to grants in the short term will reduce the size of the State Revolving Fund. The SRF will be the only known significant source of financial assistance for construction of sewerage facilities in the future.
4. Community affordability is another significant issue. Small communities experiencing little population growth would be better off with a grant than a loan. Loans may be prohibitively expensive for many small communities.

PROGRAMMATIC CONSIDERATIONS:

Congress chose to phase out the Construction Grants Program in 1987. Federal funds will continue to be provided to the states through 1994. Until 1991, the state has the option to use some of this money for awarding construction grants or for making loans. After 1991, available federal money must be put in the State Revolving Fund (SRF) and used for loans. States were given the flexibility to phase out the grant program quickly or they could choose to allocate substantial funds for grants, and implement the SRF more slowly. The

more money that is used to finance sewerage facilities with grants, the smaller the pool of money available for use in the revolving fund program. To demonstrate this flexibility, Attachment C presents three options for the allocation of funds to grants and to the SRF from FY 1989 through FY 1995.

The other major consideration is to ensure that Oregon is able to utilize all of the federal grant funds made available to it for these programs. If Oregon is unable to commit all of the federal funds, the unused portion will be lost to the state; therefore, the Department must start working with communities now to ensure all funds will be obligated. The Department believes that if a course of action is determined now, whatever alternative is chosen, no funds will be lost.

POLICY ISSUES FOR COMMISSION TO RESOLVE:

What types of projects should receive construction grant funding as the program is phased out.

COMMISSION ALTERNATIVES:

1. Direct the Department to establish a final construction grant priority list for the duration of the grant program . The proposed alternative would modify OAR 340-53 by:
 - (1) Establishing a final list of projects eligible for funding;
 - (2) Limiting projects eligible for grant assistance to those communities with documented water quality problems (Letter Classes A, B, and C on the priority list);
 - (3) Requiring communities to request by June 30, 1989 to be placed on the final priority list;
 - (4) Limiting total eligible project costs to \$1,500,000 for those projects rated a Letter Class A, B, or C after the FY89 priority list was approved on September 9, 1988; and
 - (5) Removing the requirement for the Commission to approve the construction grants priority list.

Meeting Date: 1/19/89
Agenda Item: 2
Page 5

2. Direct the Department to terminate grant funding and implement the SRF program as quickly as possible.
3. Direct the Department to continue to award grants to communities in priority rank order through September 30, 1991 or until all available grant funds are exhausted.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department Recommends that the Commission adopt Alternative 1.

This alternative appears to be the best approach for providing needed grant funds to small communities and those already in the process of obtaining a grant. The Department also believes that this alternative does not significantly diminish the ultimate size of the State Revolving Fund for future sewerage facilities funding.

INTENDED FOLLOWUP ACTIONS:

Draft rule modifications for OAR 340-53.

Request authorization from the Commission to hold a public hearing on the rule modifications.

Request approval of rule modification from Commission.

Develop final construction grants priority list.

Approved:

Section: _____

Division: _____

Director: _____

Contact: Richard Kepler
Phone: 229-6218

(Kepler:kjc)
(WJ1420)
(1/4/89)

ALTERNATIVES FOR TRANSITION FROM THE CONSTRUCTION GRANTS PROGRAM
TO A STATE REVOLVING FUND

Alternative 1 -- Develop a Final Grant Priority List and Limit Grants to Those Projects with Documented Water Quality Problems:

1. Direct the Department to establish a final construction grant priority list for the duration of the grant program. The proposed alternative would modify OAR 340-53 by:
 - (1) Establishing a final list of projects eligible for funding;
 - (2) Limiting projects eligible for grant assistance to those communities with documented water quality problems (Letter Classes A, B, and C on the priority list);
 - (3) Requiring communities to request by June 30, 1989 to be placed on the final priority list;
 - (4) Limiting total eligible project costs to \$1,500,000 for those projects rated a Letter Class A, B, or C after the FY89 priority list was approved on September 9, 1988; and
 - (5) Removing the requirement for the Commission to approve the construction grants priority list.

Under this alternative projects on the present FY89 priority list with Letter Class A, B and C ratings would continue to pursue a grant. Communities would also be allowed to submit documentation of water quality problems to the Department for evaluation and placement on a final grant priority list. Projects rated a Letter Class A, B, or C after approval of the FY89 priority list on September 9, 1988 would be limited to total eligible project costs of \$1,500,000. Those projects that fail to reach Class A, B or C status before June 30, 1989 would then only be eligible for a loan under the revolving fund program.

Advantages: This alternative assures that projects currently eligible for a grant with a Letter Class A, B or C rating will not be denied that opportunity. It also allows one final chance for small communities with water quality problems to get their projects on the list and obtain a grant. In addition, it clearly fixes a point of transition from grants to the revolving fund program. Finally, it should limit the amount of money that will be awarded for grants and should not significantly reduce the size of the revolving fund. The amount of money that potentially would be used for grants is not absolutely known, but staff believes that it should not exceed \$25 million. About \$133.9 million would then be available from the SRF.

Disadvantages: This alternative does erode the potential size of the revolving fund. However, the staff does not believe that the revolving fund would shrink significantly.

Alternative 2 -- Offer as Many Grants as Possible:

This alternative would be implemented simply by awarding grants to communities in priority order through September 30, 1991, or until available grant funds were exhausted, whichever comes first. The Department would continue to assist communities in qualifying for grant funds, and would prepare a new project priority list for Commission approval in 1989 and 1990. The Department would continue to move forward to implement the SRF program, since 50 percent of all FY 1989 and 1990 federal appropriations must be used for the revolving fund program.

Advantages: This alternative would amount to a \$44.4 million grant set-aside (total amount of grant funds allowed by law), which would be sufficient to fund all known projects with documented water quality problems, and several potential new projects as well. It would also give many communities ample time to complete grant qualification work.

Disadvantages: The primary disadvantage with this alternative would be its adverse impact on the size of the revolving fund; approximately \$111.4 million would be available for loans rather than \$133.9 million under Alternative 1.

Alternative 3 -- Make the SRF as Large As Possible:

This alternative would be implemented by rescinding approval of the FY89 construction grant project priority list, by adopting SRF rules, and by directing staff to implement the SRF program as quickly as possible.

Advantages: Approximately \$165 million would be available for project loans over the next seven (7) years. This approach would provide as much money as possible for subsequent loans from the revolving fund.

Disadvantages: There would not be any funds for construction grants. Many communities are developing facilities plans with the anticipation of receiving a construction grant in this fiscal year. Some communities, particularly small rural communities, may lack the financial capability to construct major sewerage facility improvements without grant assistance. Since the SRF is a new program, it is not known if there are sufficient projects able to qualify for loan funds on short notice.

SRF Task Force Support

An attempt was made to convene the SRF Task Force to review the three transition alternatives, however, due to Christmas holiday schedules, this was not possible. Staff instead phoned members individually. Eight of ten members were contacted; all eight members supported Alternative 1. Several members expressed strong support for ending the grant program in the near future, with the provision that communities on the project priority list for documented water quality problems, be allowed to receive a construction grant.

BACKGROUND

To help address the pollution problems of the nation's waters, the U. S. Congress passed the Clean Water Act in 1972. Part of this legislation established a grant program to provide federal assistance to municipalities for the construction of sewerage facilities needed to meet the requirements of the new Act. Over \$44.6 billion has been appropriated for the national construction grants program. Of this amount, \$515 million has been used in Oregon to build sewerage facilities.

Congress has amended the Clean Water Act several times to reduce the level of federal funding for projects. Important changes included reducing federal grant participation, reducing eligibility to certain project components, and restricting funding to existing needs only, and not for future growth capacity. In 1987, when the Clean Water Act was reauthorized, Congress chose to phase out the construction grant program and replace it with a State Revolving Fund program.

A State Revolving Fund is a pool of money from which loans can be made for construction of sewerage facilities. As loans are repaid, the money is returned to the revolving fund to be used for more loans.

The revolving fund program was intended to provide a simple, stream-lined, state operated program, that would help fund projects without reliance on federal grants. Because of statutory requirements in the Act and requirements developed by the U.S. Environmental Protection Agency, the program is burdened with more cumbersome bureaucracy than originally was envisioned by the states. These added federal requirements make the program less desirable for cities; however, the Department believes the availability of loans at below market interest rates will still make the program attractive, particularly after construction grant funds are no longer available. Once federal grant funds have been loaned out through the SRF program, the repayed funds are no longer subject to many of the federal requirements, and the SRF should become easier to manage and less cumbersome.

Grants will not be available to municipalities for construction of sewerage facilities after September 30, 1991, and states are required to set up a State Revolving Fund if they wish to receive further federal funds. During the 1987 legislative session, the Department did receive authorization through ORS 468.423 to establish a State Revolving Fund program. The Department intends to return to the 1989 Legislature to request the 20 percent state matching funds needed to receive federal funds. If the Legislature chooses not to authorize the needed state match or provides a lower amount than requested, the Department will immediately proceed to contact further communities on the priority list and initiate procedures to enable grants to be awarded.

The Department is establishing procedures to implement the program. An Advisory Task Force was created to assist in program development, and proposed rules to govern the SRF program have been prepared. A request for authorization to hold hearings on the rules will come before the Commission at the January 20, 1989 EQC meeting. If authorization is given, public hearings must be held, and the final rules must be adopted by the Commission. Once the rules are adopted, the Department must prepare a priority list of potentially eligible loan recipients, and submit an intended use plan and application for funds to EPA. The Department has reserved funds for potential project loans from the 1988 federal grant allotment. If application is made to EPA by June 30, 1989, the reserved funds will be used for loans; if the date is not met, the funds can be redirected to grants.

The Department is requesting Commission policy direction in the transition from the construction grant program to the State Revolving Fund program (SRF). There are several items and issues of general interest, enumerated below, which should be considered before a transition strategy alternative is selected.

1. The Department has found it useful to make available financial incentives to ease the financial burdens on communities when requiring improvements to their sewerage facilities. The primary advantage of the grant program has been the availability of a source of funds which does not need to be repaid. However, the advantages of the grant program have been diminished through reduction in participation (now 55 percent of eligible costs), elimination of funds for growth capacity, and project eligibility restrictions. The advantage of the SRF is the program's ability to provide low interest loans for 100 percent of project costs including growth capacity. Also under the SRF, project eligibility has been broadened to include storm sewers, estuary and nonpoint source projects. The primary disadvantage is that the loans must be repaid.
2. The federal legislation allows for flexibility in the transition from grants to the SRF; i.e., the program can be phased out quickly or states can choose to allocate substantial funds for grants, and implement the SRF more slowly. To demonstrate this flexibility, Attachment D presents three options for the allocation of funds between grants and loans from FY 1989 through FY 1995.
3. The transition from grant financing to loan financing amounts to a tradeoff between funding of sewerage works now and in the future. Funds allocated to grants in the short term will reduce the size of the State Revolving Fund. The SRF will be the only known significant source of financial assistance for construction of sewerage facilities. In effect, emphasis on grants will result in fewer funds for loans in the future. Conversely, emphasis on loans will mean fewer funds for grants in the immediate future.

4. Community affordability is another significant issue. It appears that small communities experiencing very little population growth would be better off with a grant than a loan, and, further, a loan may be prohibitively expensive. For example, preliminary evaluation of financial capability in some small communities suggests that loan financing under the SRF program will result in sewer use charges of \$40 - \$60 per month. In contrast, City of Portland homeowners pay about \$8.50 per month. If low interest rate loans through the SRF were not available at all, sewer use charges could become very expensive for many communities.

5. For the state to be able to commit all the federal grant funds available, the Department must start working with potential grant and loan recipients now to ensure that all federal grant funds can be obligated. Both the grant and loan requirements dictate at least a six month lead time before an award can be made. Therefore, the Department needs to know whether a community will receive a grant or loan so they can be guided through the appropriate qualification process. There are still federal funds available from the FY 1988 allocation which must be obligated to grants and/or loans by September 30, 1989 or the unused funds will be returned to the federal government and lost to the state.

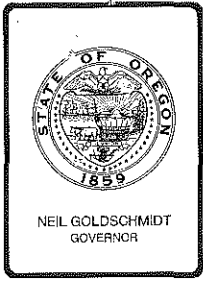
CONSTRUCTION GRANT AND STATE REVOLVING FUND PROJECTIONS

(This chart identifies three options available to Oregon during the grant/loan transition. Column 1 shows how the grant/loan split would work if the funds are used partly for grants and partly for loans through 1990. Column 2 show how dollars would be allocated to grants and loans if the maximum allows by federal law is used for grants. Column 3 shows how dollars would be allocated to grants and loans if the maximum allowed by federal law is used for loans.)

| State Fiscal Year | Total Oregon Allotment As Authorized (Millions) | 1. DEQ Recommended Grant Loan Split | | | 2. If Oregon Takes as Much in Grant Funding as Allowed by Federal Law | | | 3. If Oregon Takes as Much in SRF Funding as Allowed by Federal Law* | | |
|-------------------|---|-------------------------------------|---------------------------------|----------------------------|---|---------------------------------|----------------------------|--|---------------------------------|----------------------------|
| | | Estimated \$ for Grants (Millions) | Estimated \$ for SRF (Millions) | 20% State Match (Millions) | Estimated \$ for Grants (Millions) | Estimated \$ for SRF (Millions) | 20% State Match (Millions) | Estimated \$ for Grants (Millions) | Estimated \$ for SRF (Millions) | 20% State Match (Millions) |
| 1989 | \$ 20.1 | \$15 | \$ 5.1 | \$ 1.0 | \$20.1 | \$ 0 | \$ 0 | \$ 0 | \$ 20.1 | \$ 4.0 |
| 1990 | 21.3 | 5 | 16.3 | 3.3 | 10.6 | 10.6 | 2.1 | 0 | 21.3 | 4.3 |
| 1991 | 27.4 | 5 | 22.4 | 4.5 | 13.7 | 13.7 | 2.7 | 0 | 27.4 | 5.5 |
| 1992** | 27.4 | 0 | 27.4 | 5.5 | 0 | 27.4 | 5.5 | 0 | 27.4 | 5.5 |
| 1993 | 20.6 | 0 | 20.6 | 4.1 | 0 | 20.6 | 4.1 | 0 | 20.6 | 4.1 |
| 1994 | 13.7 | 0 | 13.7 | 2.7 | 0 | 13.7 | 2.7 | 0 | 13.7 | 2.7 |
| 1995 | 6.9 | 0 | 6.9 | 1.4 | 0 | 6.9 | 1.4 | 0 | 6.9 | 1.4 |
| Total | \$137.3 | \$25 | \$112.4 | \$22.5 | \$44.4 | \$92.9 | \$18.5 | \$ 0 | \$137.3 | \$27.5 |

*Though DEQ has the option of putting all of the funds in the SRF during 1989, DEQ has been operating under the assumption that at least part of the funds would go to grants and is currently working with cities to get them grants.

**Grants are not allowed after 1991.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: 3/3/89
Agenda Item: K
Division: WQ
Section: PM

SUBJECT:

Proposed new rules related to approval of increased wastewater discharges.

PURPOSE:

The Water Quality Management Plan contains policy statements for waste discharges which apply generally in most but not all situations. In those cases where implementation of the policies are technically and economically infeasible, dischargers may request the Commission to grant an exception to the general policy. Language in two policy statements authorize the Commission to consider such requests and to grant exceptions on a case-by-case basis. Furthermore, language in one policy statement requires that significant or large new sources secure Commission approval in order to discharge treated wastewaters. Those policy statements that authorize the Commission to grant exceptions and approvals, however, lack explicit criteria upon which the Department and Commission can apply to make an equitable evaluation of proposals for new or increased loadings. Thus, this agenda item proposes environmental and economic criteria to amend present rules.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)

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Agenda Item: K
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| | | |
|--|-------------|------------------|
| <input checked="" type="checkbox"/> Authorize Rulemaking Hearing | | |
| Proposed Rules (Draft) | Attachments | <u>A & B</u> |
| Rulemaking Statements | Attachment | <u>D</u> |
| Fiscal and Economic Impact Statement | Attachment | <u>E</u> |
| Draft Public Notice | Attachment | <u>F</u> |
| | | |
| <input type="checkbox"/> Adopt Rules | | |
| Proposed Rules (Final Recommendation) | Attachment | ___ |
| Rulemaking Statements | Attachment | ___ |
| Fiscal and Economic Impact Statement | Attachment | ___ |
| Public Notice | Attachment | ___ |
| | | |
| <input type="checkbox"/> Issue Contested Case Decision/Order | | |
| Proposed Order | Attachment | ___ |
| | | |
| <input type="checkbox"/> Other: (specify) | | |

DESCRIPTION OF REQUESTED ACTION:

OAR 340-41-026(2) authorizes the Commission to approve increases in permitted discharge loadings requested by municipal and industrial sources. Thus, the Commission requested the Department to draft criteria that address the environmental and economic effects of increased discharge loadings to waterways. The proposed amendment and criteria provide for the following:

- o The Commission would review requests for increased loadings from major dischargers, while the Director would review requests from other dischargers.
- o The increased loading must not cause violation of water quality standards nor threaten or impair recognized beneficial uses.
- o Increased loadings will not be approved for water quality limited stream segments if the pollutant parameter(s) of the requested increased load are directly or indirectly related to the reason the stream is water quality limited.
- o Before additional loadings are allowed, the discharger must demonstrate that the activity or growth necessitating the increased loading is consistent with the local land use plans.
- o If unused waste assimilative capacity exists in a stream and it is determined that increased loading will not

exceed this capacity, then the economic effects of increased loading will be considered.

- o The environmental criteria consider whether the environmental effects will be greater for out-of-stream waste disposal than for discharge to a stream.
- o The environmental criteria also consider the reduction in total stream loading contributed from multiple sources and the increase in loading from one source such as from a regional treatment facility. The criteria further consider that increased loadings in seasons of high stream flow may enable reduction of loadings in periods of low flow.
- o The economic effects criteria give consideration to the present and future instream uses that could benefit from unused assimilative capacity compared to the economic benefit associated with increased loading. The economic cost of improved treatment technology to accommodate growth within existing allowable loadings may be considered in evaluating requests for increased loadings.

OAR 340-41-120(3)(a) provides that before new or expanded waste loads may discharge any waste, such treatment or control facilities must be fully approved by the Department.

- o To eliminate the apparent disparity between the treatment requirements for new and existing municipal treatment facilities, the proposed amendment to OAR 340-41-120(3)(a) adds language to clarify that new sewage treatment plants must either meet a basin's minimum design criteria or match the effluent concentration levels required of similar sources on the same segment of the waterbody, whichever are more stringent.

AUTHORITY/NEED FOR ACTION:

| | |
|--|------------------------------|
| ___ Required by Statute: _____ | Attachment ___ |
| Enactment Date: _____ | |
| <u>X</u> Statutory Authority: <u>ORS 468.705-.730</u> | Attachment <u>C</u> |
| <u>X</u> Amendment of Existing Rule: <u>OAR 340-41-026(2)</u> <u>OAR 340-41-120(3)(a)</u> | Attachments <u>A & B</u> |
| ___ Implement Delegated Federal Program: _____ | Attachment ___ |
| ___ Other: _____ | Attachment ___ |
| ___ Time Constraints: None | |

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DEVELOPMENTAL BACKGROUND:

Oregon Administrative Rule (OAR) 340-41-026(2) requires that growth and development be accommodated within existing permitted loads unless otherwise approved by the Commission. At the June 1988 meeting, Portland General Electric Company requested the Commission grant an exception to the policy and allow an increase in permit loadings for their sewage treatment plant at the Trojan Power Plant (Attachment H). Although the request was approved, the Commission requested the Department to develop criteria for evaluating whether requested loading increases would be appropriate. At the November 3, 1988 Commission work session, the Department provided proposed criteria for consideration. Subsequently, Commissioner Emery Castle provided suggested language as a starting point for staff to develop the criteria (Attachment I). This language, with some revisions, has been placed in rule form for the Commission to consider.

In addition to developing criteria for increased loadings, the Department also believed that the minimum design criteria for new or modified sewage treatment plants should be changed. However, in maintaining discharge loadings within permit limits, some sewage treatment plants may be required to provide treatment better than the minimum design criteria. The Department believes that it is possible for a new sewage treatment plant to be proposed next to a plant that has had to provide much better treatment than the minimum design criteria. The Department further believes that it is inequitable for the new plant to have to meet only the minimum design criteria. As a result, the Department proposes to require new sewage treatment plants to provide treatment equivalent to the most stringent provided on that stream segment. It should be recognized that new industrial dischargers are required to provide highest and best available treatment. This treatment standard requires upgrading automatically as technology improves.

| | | |
|--|------------|-------------|
| <u> </u> Advisory Committee Report/Recommendation | Attachment | <u> </u> |
| <u> </u> Hearing Officer's Report/Recommendations | Attachment | <u> </u> |
| <u> </u> Response to Testimony/Comments | Attachment | <u> </u> |
| <u> X</u> Prior EQC Agenda Items: | | |
| November 3, 1988 EQC Work Session | Attachment | <u> G</u> |
| June 10, 1988, Portland General Electric Request for Increased Load Allocation | Attachment | <u> H</u> |
| Commissioner Castle's Suggested Criteria | Attachment | <u> I</u> |
| <u> X</u> Other Related Reports/Rules/Statutes: | | |
| OAR 340-45-075(2) | Attachment | <u> J</u> |
| <u> </u> Supplemental Background Information | Attachment | <u> </u> |

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REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The proposed criteria should be helpful to all dischargers in evaluating their situation and the options available to them in complying with the general policy before they request for an exception to discharge increased loads. The main distinguishing feature between major municipal and industrial dischargers and other sources is that the major discharges may have a significant adverse effect on the receiving stream. Thus, the amendments to the rule proposes that the Commission evaluate the major sources, while the Director would evaluate the minor sources that would not likely affect water quality adversely.

Some new dischargers may be disadvantaged by the proposed rule requiring that they provide treatment equivalent to the most stringent required on that stream segment. This treatment level may be more stringent than that required by the minimum design criteria specified in the basin standards and, as such, will be more costly to build and operate. The Department believes that there will be very few places, however, where this proposed rule will come into effect.

PROGRAMMATIC CONSIDERATIONS:

The Department foresees many requests for increased loadings from dischargers, particularly for the wet weather period. New tasks established by the proposed rule amendments could be handled by existing staff, provided consulting engineers conduct and incorporate results of water quality impact evaluations into their engineering and facility planning studies. The rules would require the same amount of staff time to evaluate proposals from both major and minor sources. Additional time would be needed, however, to prepare staff reports on requests from major sources for Commission consideration.

In cases where new municipal treatment facilities are proposed, the Sewage Disposal and Construction Grants Sections will process the proposals on a routine basis. These tasks include review of engineering studies, plans and specifications, and construction grants related activities. The Planning and Monitoring Section would review the water quality evaluations of consultants for potential adverse effects that proposed new or expanded sources may have on water quality. This evaluation considers the dilution capabilities of the receiving waters and the potential instream effects on the biota and other beneficial uses.

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ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

The Department considered the following alternatives in drafting the proposed rule amendments:

1. Develop criteria authorizing the Commission to grant exceptions only to policy statement OAR 340-41-026(2).

If the criteria were applied to only the policy statement above in granting exceptions under certain situations, then the Commission would be faced without criteria for evaluating and approving discharges from significant new or large sources and discharges to lakes and reservoirs.

2. Develop criteria authorizing the Commission to grant exceptions to policy statements OAR 340-41-026(2) and (4) and to approve discharges from significant or large sources under OAR 340-41-026(3).

The Department believes that the environmental and economic effects criteria proposed in Attachment A can be used by the Commission and Director to evaluate proposals for increased discharge loadings, as well as for significant new source discharges and discharges to impoundments. Agenda item Q is a proposal by the City of Lowell to continue its discharge to Dexter Reservoir.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission adopt option 2 and allow public hearings to proceed. This action will allow the Department to provide public review and receive testimony on the proposed rule amendments.

The Department further recommends that Commissioner Castle's suggested language allowing the Commission to consider whether increased loading is in the most appropriate geographic location be changed. The proposed change would require that growth necessitating an increased loading be consistent with acknowledged local land use plans.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The proposed rules are consistent with past Commission action to allow an increase in permitted loads only when

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environmental or economic considerations would warrant such an increase.

The addition of proposed criteria to OAR 340-41-026 would provide the Commission, Department, and potential point source applicants the conditions which will be considered when a request for increased discharge loading is reviewed. These criteria should help clarify how this policy statement will be implemented when such a request is submitted to the Commission or Director for consideration. These criteria would also help an applicant to focus on the types of information that should accompany a request for increased loading.

The additional language proposed for OAR 340-41-120(3)(a) helps clarify the minimum treatment requirement for new municipal control facilities. Currently, new industrial dischargers are required to provide best available treatment. The proposed amendment would provide consistency in minimum treatment requirements between municipal and industrial source discharges.

ISSUES FOR COMMISSION TO RESOLVE:

1. Should the Department be authorized to approve proposed increased loadings from minor sources, while the Commission considers such requests from only major sources, or should the Commission review and evaluate all exceptions to the policy?
2. Should the proposed criteria be applicable to OAR 340-41-026(3) and (4), which require the Commission to respectively approve significant or large new sources for discharge and discharges to lakes and reservoirs?
3. Are the proposed criteria consistent with the intent of Commissioner Castle's suggested language?
4. Is it appropriate to require a new sewage treatment plant to meet the same design criteria as an adjacent sewage treatment plant that has to provide more stringent treatment in order to accommodate new growth?

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INTENDED FOLLOWUP ACTIONS:

Actions on draft rule:

- o File hearing notice with the Secretary of State.
- o Hold public hearing at selected sites across Oregon.
- o Review and respond to oral and written testimony and revise proposed amendments to the rules as appropriate.
- o Return to July or September 1989 Commission meeting for final rule adoption, depending on the amount of testimony received or issues raised.

Approved:

Section: *David J. Mulligan*

Division: *David J. Mulligan*

Director: *Bill Kern*

Report Prepared By: Ed L. Quan

Phone: 229-6978

Date Prepared: 2/3/89

ELQ:kjc
WJ1497 (EQC.FMT 1/31/89)
2/6/89

POLICIES AND GUIDELINES GENERALLY APPLICABLE TO ALL BASINS

340-41-026

- (1) (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 Environmental Quality 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), (4) [(3)], and (5) [(4)], and nonpoint source activities shall follow guidelines (6), (7), (8), (9), and (10) [(5), (6), (7), (8), and (9).]
- (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). [unless otherwise specifically approved by the EQC.]
- (3) The Commission or Director may grant exceptions to sections (2) and (5) and approvals to section (4) 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 Director 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 discharged load would not threaten or impair any recognized beneficial uses;

(C) The new or increased discharged load shall not be granted if the receiving stream is classified as being water quality limited unless the pollutant parameters associated with the proposed discharge are unrelated either directly or indirectly to the parameter(s) causing the receiving stream to be water quality limited; and

(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. The strategy that has been followed in stream management has hastened the development and application of treatment technology that would not have otherwise occurred. As a result, some waters in Oregon have assimilative capacity above that which would exist if only the minimum level of waste treatment was achieved. This 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 Director shall consider the following:

(A) Environmental Effects Criteria.

(i) Adverse Out-of-Stream Effects. There may be instances where the nondischarge or limited discharge alternatives may cause greater adverse environmental effects than the increased discharge alternative. Examples of such adverse impacts may include energy consumption and greater operating skill requirements of "high tech" treatment facilities or 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.

(B) Economic Effects Criteria. When assimilative capacity exists in a stream, and when it is judged that increased loadings will have less 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 value of the beneficial use that would be sacrificed or foregone if the increased loading is not permitted. 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 increased loading.

(ii) Cost of Treatment Technology. The cost of improved treatment technology, nondischarge and limited discharge alternatives shall be evaluated. This evaluation shall consider the relationship of costs to those experienced by other similar facilities and whether the costs may be unduly burdensome or inequitable.

(4) [(3)] 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 by the Department if no measurable adverse impact on water quality or beneficial uses will occur. In considering approval of major [Significant or large] new sources, the Commission shall apply the criteria in section 3. [must be approved by the Environmental Quality Commission.]

(5) [(4)] No discharges of wastes to lakes or reservoirs shall be allowed except as provided in section 3. [without specific approval of the EQC.]

(6) [(5)] Log handling in public waters shall conform to current EQC policies and guidelines.

(7) [(6)] 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.

(8) [(7)] 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.

(9) [(8)] 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.

(10) [(9)] 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. 468

Hist: DEQ 128, f. & ef. 1-21-77; DEQ 1-1980, f. & ef. 1-9-80

IMPLEMENTATION PROGRAM APPLICABLE TO ALL BASINS

340-41-120

- (3) (a) For new or expanded waste loads or activities, fully approved treatment or control facilities, or both, shall be provided prior to discharge of any wastes from the new or expanded facility or conduct of the new or expanded activity. In addition, new waste control facilities shall provide treatment equivalent to either that specified in the appropriate basin plan under Minimum Design Criteria for Control of Wastes or that provided by other similar waste sources on the same stream segment, whichever is more stringent.

468.705 Authority of commission over water pollution; construction. (1) Except as otherwise provided in ORS 469.300 to 469.570, 469.590 to 469.621 and 469.930, in so far as the authority of the commission over water pollution granted by 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 this chapter is inconsistent with any other law, or authority granted to any other state agency, the authority of the commission shall be controlling.

(2) The water pollution control laws of this state shall be liberally construed for the accomplishment of the purposes set forth in ORS 468.710. [Formerly 449.070]

468.710 Policy. Whereas pollution of the waters of the state constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish and aquatic life and impairs domestic, agricultural, industrial, recreational and other legitimate beneficial uses of water, and whereas the problem of water pollution in this state is closely related to the problem of water pollution in adjoining states, it is hereby declared to be the public policy of the state:

(1) To conserve the waters of the state;

(2) To protect, maintain and improve the quality of the waters of the state for public water supplies, for the propagation of wildlife, fish and aquatic life and for domestic, agricultural, industrial, municipal, recreational and other legitimate beneficial uses;

(3) To provide that no waste be discharged into any waters of this state without first receiving the necessary treatment or other corrective action to protect the legitimate beneficial uses of such waters;

(4) To provide for the prevention, abatement and control of new or existing water pollution; and

(5) To cooperate with other agencies of the state, agencies of other states and the Federal Government in carrying out these objectives. [Formerly 449.077]

468.715 Prevention of pollution. (1) Pollution of any of the waters of the state is declared to be not a reasonable or natural use of such waters and to be contrary to the public policy of the State of Oregon, as set forth in ORS 468.710.

(2) In order to carry out the public policy set forth in ORS 468.710, the department shall take such action as is necessary for the prevention of new pollution and the abatement of existing pollution by:

(a) Fostering and encouraging the cooperation of the people, industry, cities and counties, in order to prevent, control and reduce pollution of the waters of the state; and

(b) Requiring the use of all available and reasonable methods necessary to achieve the purposes of ORS 468.710 and to conform to the standards of water quality and purity established under ORS 468.735. [Formerly 449.095]

468.720 Prohibited activities. (1) Except as provided in ORS 468.740, no person shall:

(a) Cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means.

(b) Discharge any wastes into the waters of the state if the discharge reduces the quality of such waters below the water quality standards established by rule for such waters by the commission.

(2) No person shall violate the conditions of any waste discharge permit issued under ORS 468.740.

(3) Violation of subsection (1) or (2) of this section is a public nuisance. [Formerly 449.079]

468.725 Effluent limitations. In relation to the waters of the state, the commission by rule may establish effluent limitations, as defined in Section 502 of the Federal Water Pollution Control Act, as amended by Public Law 92-500, October 18, 1972, and other minimum requirements for disposal of wastes, minimum requirements for operation and maintenance of disposal systems, and all other matters pertaining to standards of quality for the waters of the state. The commission may perform or cause to be performed any and all acts necessary to be performed by the state to implement within the jurisdiction of the state the provisions of the Federal Water Pollution Control Act of October 18, 1972, and Acts amendatory thereof or supplementary thereto, and federal regulations and guidelines issued pursuant thereto. [Formerly 449.081]

468.730 Implementation of Federal Water Pollution Control Act. The commission may perform or cause to be performed any and all acts necessary to be performed by the state to implement within the jurisdiction of the state the provisions of the Federal Water Pollution Control Act, enacted by Congress, October 18, 1972, and Acts amendatory thereof or supplementary thereto, and federal regulations and guidelines issued pursuant thereto. The commis-

sion may adopt, modify or repeal rules, pursuant to ORS 183.310 to 183.550, for the administration and implementation of this section: [1973 c.92 §3]

468.732 Certification of hydroelectric power project; comments of affected state agencies. The Director of the Department of Environmental Quality shall approve or deny certification of any federally licensed or permitted activity related to hydroelectric power development, under section 401 of the Federal Water Pollution Control Act, P.L. 92-500, as amended. In making a decision as to whether to approve or deny such certification, the director shall:

(1) Solicit and consider the comments of all affected state agencies relative to adverse impacts on water quality caused by the project, according to sections 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act, P.L. 92-500, as amended.

(2) Approve or deny a certification only after making findings that the approval or denial is consistent with:

(a) Rules adopted by the Environmental Quality Commission on water quality;

(b) Provisions of sections 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act, P.L. 92-500, as amended;

(c) Standards established in ORS 469.371 and 543.017 and rules adopted by the Water Resources Commission and the Energy Facility Siting Council implementing such standards; and

(d) Standards of other state and local agencies that are consistent with the standards of ORS 469.371 and 543.017 and that the director determines are other appropriate requirements of state law according to section 401 of the Federal Water Pollution Control Act, P.L. 92-500, as amended. [1985 c.569 §7]

468.734 Certification of change to hydroelectric power project; notification of federal agency. Within 60 days after the Department of Environmental Quality receives notice that any federal agency is considering a permit or license application related to a change to a hydroelectric project or proposed hydroelectric project that was previously certified by the Director of the Department of Environmental Quality according to section 401 (1) of the Federal Water Pollution Control Act P.L. 92-500, as amended:

(1) The director shall:

(a) Solicit and consider the comments of all affected state agencies relative to adverse impacts

on water quality caused by changes in the project, according to sections 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act, P.L. 92-500, as amended.

(b) Approve or deny a certification of the proposed change after making findings that the approval or denial is consistent with:

(A) Rules adopted by the Environmental Quality Commission on water quality;

(B) Provisions of sections 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act, P.L. 92-500, as amended;

(C) Standards established in ORS 469.371 and 543.017 and rules adopted by the Water Resources Commission and the Energy Facility Siting Council implementing such standards; and

(D) Standards of other state and local agencies that are consistent with the standards of ORS 469.371 and 543.017 and that the director determines are other appropriate requirements of state law according to section 401 of the Federal Water Pollution Control Act, P.L. 92-500, as amended.

(2) On the basis of the evaluation and determination under subsection (1) of this section, the director shall notify the appropriate federal agency that:

(a) The proposed change to the project is approved; or

(b) There is no longer reasonable assurance that the project as changed complies with the applicable provisions of the Federal Water Pollution Control Act, P.L. 92-500, as amended, because of changes in the proposed project since the director issued the construction license or permit certification. [1985 c.569 §8]

468.735 Standards of quality and purity; factors to be considered; meeting standards. (1) The commission by rule may establish standards of quality and purity for the waters of the state in accordance with the public policy set forth in ORS 468.710. In establishing such standards, the commission shall consider the following factors:

(a) The extent, if any, to which floating solids may be permitted in the water;

(b) The extent, if any, to which suspended solids, settleable solids, colloids or a combination of solids with other substances suspended in water may be permitted;

(c) The extent, if any, to which organisms of the coliform group, and other bacteriological organisms or virus may be permitted in the waters;

Agenda Item K, March 3, 1989, EQC Meeting

STATEMENT OF NEED FOR RULEMAKING

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

1. Legal Authority

Oregon Revised Statute (ORS) 468.020 grants the Environmental Quality Commission the authority to "adopt such rules and standards as it considers necessary and proper in performing the functions vested by law in the Commission." Further, ORS 468.705 provides the Commission authority over water pollution.

2. Need for the Rule

Oregon Administrative Rule (OAR) 340-41-026(2) requires the Commission to approve any increase in permitted discharge loadings. At the Commission's request, the Department has drafted rules to provide criteria to be considered when weighing a request by a permittee for an increase in discharge loading. In addition, the Commission, at the Department's suggestion, felt that only the larger facilities with such requests should be brought to the Commission for approval. Smaller facilities should require only Department review and approval. The proposed draft rules address this concern. Finally, the Commission agreed with the Department that it would be inequitable for a new sewage treatment plant to be allowed to only meet minimum treatment criteria if an existing plant on the same stream segment had been required to meet more stringent treatment as a result of staying within currently allowed loading limits. The proposed rules also address this concern.

3. Principal Documents Relied Upon in this Rulemaking

- a. Oregon Administrative Rule 340-41.
- b. Memo dated November 3, 1988 from Fred Hansen, Director of the Department of Environmental Quality, to the Environmental Quality Commission concerning criteria for evaluating requests for increased loadings (attached).

- c. Agenda Item L, June 10, 1988, EQC meeting, "Request for Increase Load Allocation Under OAR 340-41-026(2) from Portland General Electric for an Expansion of the Sewage Treatment Plant Serving the Trojan Nuclear Power Plant."
- d. Note from Environmental Quality Commission member E.N. Castle concerning "Proposed Criteria for Consideration of Increased Loadings from Expansion of Sewage Treatment Plants and Industrial Sources."

LAND USE COMPATIBILITY STATEMENT

Land Use Consistency

The Department has concluded that the proposal conforms with the Statewide Planning Goals and Guidelines.

Goal 6 (Air, Water and Land Resources Quality): The first two proposed rule changes are procedural in nature and will not affect this goal. The last proposed rule change, in some cases, will require a higher level of treatment for new sewage treatment plants. The Department believes that the change will better protect water quality resources and, therefore, concludes that this proposal is consistent with Goal 6.

Goal 11 (Public Facilities and Services): The first two proposed rule changes are procedural in nature and will not affect this goal. The last proposed rule change, in some cases, will require a higher level of treatment for new sewage treatment plants. Higher treatment levels will add to the cost of providing necessary sewage treatment and will probably add to the burdens of public agencies in charge of providing sewer service.

Public comment on any land use issue involved is welcome and may be submitted in the same manner as indicated for testimony in this notice.

FISCAL AND ECONOMIC IMPACT

Oregon Administrative Rule (OAR) 340-41-026(2) currently requires that: "In order to maintain the quality of waters in the State of Oregon, it is the 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 discharge waste loads from existing sources do not exceed presently allowed discharged loads unless otherwise specifically approved by the EQC." The present rule creates an economic effect by requiring increased levels of treatment and control as growth and development occurs. The proposed rule change does not eliminate this condition, but it does allow requests by the smaller sources for increased loadings to be judged by the Director rather than the Commission. Review and approval by the Department should speed up the decision-making process and result in reduced costs to the smaller sources including small businesses. The proposed rule change also establishes criteria upon which the decisions will be based. The Department believes that the criteria will aid people, including small business owners, in determining whether or not they may qualify for approval. ORS 183.310 through 183.335 suggests that economic impacts be reduced with the use of objective criteria in the application of standards.

The proposal to add language to OAR 340-41-120(3)(a) will require new sewage treatment plants to provide treatment levels equivalent to the most stringent levels currently being applied by any existing sewage treatment plant on the same stream segment. This modification could have an economic and fiscal effect because of the need for cash outlay to purchase and install additional treatment equipment and associated operation and maintenance costs. Most likely, these added costs will be transferred to people by the owner of the sewerage facility through added user fees for sewer service. The costs to individuals and small businesses will depend upon the necessary equipment for achieving the higher treatment level, the amount of wastewater discharged into the new sewage treatment plant by the individual or small business, and the number of connections to the new sewage treatment plant that have to share the additional costs. An example of the potential added costs are demonstrated as follows. If the added treatment requirements would require the use of a sand filter to polish the effluent from a one million gallon per day plant, the increased costs for a single family home could be an additional \$2.00 to 3.00 per month. The increased costs for small businesses would depend on the amount of wastewater discharged into the sewerage facility and the particular rate structure used by the owner of the sewerage facility.

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Public Hearing

Hearing Date:

Comments Due:

WHO IS AFFECTED: Permitted municipal and industrial sources that discharge treated effluent to surface waters. Large and small businesses and the public served by municipal treatment facilities.

WHAT IS PROPOSED: The Department proposes to amend two existing rules: OAR 340-41-026 which provides the Commission and Director with a set of environmental and economic criteria to determine whether principal dischargers and smaller dischargers, respectively, should be allowed to discharge increased loads to waterways either year round or seasonally; and OAR 340-41-120(3)(C) which requires new municipal sewage treatment plants to either meet the minimum design criteria specified in the appropriate basin plan or match the treatment level provided by similar sources on the same waterbody, whichever is more stringent.

WHAT ARE THE HIGHLIGHTS: Under proposed amendments to OAR 340-41-026, principal dischargers requesting increased discharge loadings would know before hand whjether they have submitted all the necessary information to the Commission to consider in approving for an increase in permitted discharge loads. Nonprincipal dischargers would know not only the criteria used to evaluate their request, but the Department, rather than the Commission, would process their application.

Proposed amendments to OAR 340-41-120(3)(C) would establish the minimum design criteria for new municipal wastewater treatment facilities.

PUBLIC HEARINGS: Public hearings will be held before a hearings officer at:

(TIME) _____
 (DATE) _____
 (PLACE) _____



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.

**HOW TO
COMMENT:**

Written or oral comments may be presented at the hearings. Written comments may also be sent to the Department of Environmental Quality, Water Quality Division, 811 S.W. Sixth Avenue, Portland, OR 97204, and must be received no later than 5:00 p.m., _____, 1989.

Copies of the complete proposed rule package may be obtained from the DEQ, Water Quality Division. For further information, contact Ed Quan at 229-6978 or toll-free (in Oregon) at 1-800-452-4011.

**WHAT IS THE
NEXT STEP:**

The Environmental Quality Commission may adopt new rules 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 new rule and rule revisions at its meeting on _____, 1989.

WJ1503 (PUBN.H 1/13/88)



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

TO: Environmental Quality Commission DATE: November 3, 1988

FROM: Fred Hansen, Director

SUBJECT: Proposed Criteria for Consideration of Increased Loadings Due to Expansions of Existing Sewage Treatment Plants or Industrial Sources.

BACKGROUND

Oregon Administrative Rule (OAR) 340-41-026(2) states: "In order to maintain the quality of waters in the State of Oregon, it is the 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 unless otherwise specifically approved by the EQC."

This policy statement was adopted by the Commission in January, 1977, and is one of two basic components of the Department's current water quality management strategy as it relates to the control of point source discharges. The second component is reflected in the minimum design criteria for treatment and control of wastes as stated in Oregon Administrative Rule (OAR) 340-41. These criteria are specific for each of Oregon's nineteen river basins and specify the minimum treatment design levels for both sewage treatment plants and industrial waste water sources. The treatment levels for sewage treatment plants, in part, state specific numerical criteria. For industrial sources, on the other hand, the criteria require highest and best practicable treatment and control which means that, as technology improves with time, the criteria become more stringent.

When developed, the minimum design criteria were designed to assure that projected growth during the twenty year planning period would not result in any additional waste loadings to the state's waters.

The regulations also provide that wherever minimum design criteria for waste treatment and control facilities set forth in the rules are more stringent than applicable federal standards and treatment levels currently being provided (emphasis provided), upgrading to the more stringent requirements will be deferred until it is necessary to expand or otherwise modify or replace the existing treatment facilities. (OAR 340-41-120(3)(c))

This water quality management strategy has been extremely beneficial to the protection of Oregon's water quality. It has forced the advance of treatment technology which might not have otherwise occurred. It recognizes that Oregon's water bodies have a finite capacity to assimilate wastes and

still meet water quality standards. Consequently, it has helped preserve the remaining, unused assimilative capacity of Oregon's rivers and streams by minimizing the increase of discharges into them. The strategy, however, inherently causes disparities that, over time, have become more glaring. First, because the strategy is not triggered for existing facilities until there is a need to upgrade or expand, some facilities still are only required to meet the minimum treatment level required by the Federal government.

The second disparity arises when a new sewage source is proposed for discharge. The new source may only be required to meet the basin's numerical standard for sewage treatment plants if adequate stream flow is available and uses will be protected. Theoretically, the new source could be located next to an existing source that, because of expansions due to growth, has had to progressively increase its level of treatment resulting in effluent limits much more stringent than the basin standard required of the new source.

Historically, the Department always evaluates the potential effects on water quality from proposed new or expanded sources. This evaluation, among other things, considers the dilution capabilities of the receiving stream and, in conjunction with the water quality management strategy discussed above, has represented the basic approach to controlling wastewater discharges from point sources. Admittedly, it is more of a technology-based approach than a strict water quality approach. However, it is not intended to allow loads to increase to the carrying capacity of the streams.

ISSUES

1. As discussed above, application of this strategy can create some disparities or inequities between adjacent or similar sources. The Department does not believe that rules can be written that could anticipate the potential disparities and eliminate them from arising. Consequently, the Commission will continue to be faced with requests from sources to allow increased loadings. The issue then seems to be what criteria should be used in arriving at the decisions. A list of proposed criteria is attached as Attachment A.
2. Should new municipal sources be allowed only to meet the numerical minimum design criteria if a similar source along the same river system has been forced by the strategy to meet much more stringent treatment requirements? To be comparable to the approach for new industrial sources, it may be more appropriate for new municipal sources to meet treatment requirements equivalent to the highest level currently being required on that water body.
3. To what extent should the Commission involve itself in permit issuance decisions? In most permit actions, the Commission's role is to act as an appeal board. When the strategy was adopted, the Department did not envision that the Commission would be faced with very many requests.

In fact, the Department referred only those requests to the Commission that were considered significant and dealt with the rest through the regular permit issuance procedure. The Department believes that strict application of the strategy currently required by the rules will force many minor decisions to the Commission for action. We do not believe it is a good use of Commission time to consider routine requests nor effective use of Department staff time in preparing Commission staff reports on these routine requests. We recommend that the Commission limit its review and required approval to those requests from principal dischargers as defined by EPA criteria. A list of the principal dischargers is attached as Attachment B.

DIRECTOR'S RECOMMENDATION

The Director recommends that:

1. The Commission recognize the criteria stated in Attachment A as the basis for considering requests for increased loadings under OAR 30-41-026(2).
2. The Commission direct the Department to proceed to rule-making to:
 - a. Change the minimum design criteria so that new municipal sewage treatment plants must meet the most stringent treatment requirements currently imposed on other sources discharging into the same water body.
 - b. Limit the sources for which the Commission would review requests for increased loadings to those defined as principal dischargers by EPA and DEQ.

Richard J. Nichols:kjc
229-5324
WJ1138

PROPOSED CRITERIA FOR CONSIDERATION OF INCREASED LOADINGS DUE TO
EXPANSIONS OF EXISTING SEWAGE TREATMENT PLANTS AND INDUSTRIAL
SOURCES

1. Practicality of options to increased loads. The review of alternatives to increased loads concludes that there are no practicable alternatives. Obviously, practicability is not easily defined and must consider costs, available technology, public concerns, and other issues such as the environmental consequences of not requiring more stringent controls. An example: A sewage treatment plant currently discharges at a level of 10 mg/l each for BOD-5 and total suspended solids (TSS) on a monthly average. Growth has caused the plant to reach its capacity and the city proposes to double the size of the plant. Summer effluent irrigation is not possible because of steep slopes. Improved treatment over 10/10 would require expensive treatment technology. The receiving stream is large and has ample assimilative capacity for additional waste loadings.

2. Increased loading from an existing treatment plant is due to: the extension of sewers to an existing development served by on-site systems that currently cause a health hazard or groundwater contamination; the reduction of existing total loads discharged by eliminating raw sewage by-passes; or the construction of a regional plant to replace several smaller, less-efficient sewage treatment plants. In some cases, a particular sewage treatment plant may be asked to serve additional areas outside its existing service area to eliminate a water quality or public health concern. An example of this situation would be the City of Gresham which is extending sewers into mid-Multnomah County to eliminate the use of cesspools for waste disposal as required by the Environmental Quality Commission. The Commission allowed Gresham to retain its effluent concentration limits rather than provide a higher degree of treatment when serving mid-Multnomah County. In another case, a city's sewerage system is overtaxed with extraneous water, causing the sewer system to frequently by-pass raw waste and the plant to operate inefficiently. The excess water in the system resulted from combined sanitary and storm sewers, and groundwater infiltration due to leaky sewers. To address such a problem, the City of North Bend improved its sewer system and is expanding its plant. They are being allowed to maintain their effluent concentration limits. Finally, a plant may be selected to serve as a regional facility to replace a number of nearby smaller plants that are less efficient and would otherwise need to expand. The expanded sewage treatment plant at Roseburg is a case where this has happened. The upgrade of the Roseburg plant required a higher summer treatment level to meet the Umpqua Basin treatment and effluent dilution criteria. However, they were given higher winter permitted load limits for the larger plant flow while retaining secondary treatment during the wet weather season.

3. Environmental trade-offs may outweigh the benefits of restricting seasonal increased loadings. In some cases, there may be environmental advantages to allowing an increased loading to a particular stream. In addition, there may be undesirable environmental effects to the "no increase" alternative. Some examples:
- a. Philomath had an old conventional sewage treatment system that discharged reasonably well-treated effluent to the Marys River year-round. The new plant is a lagoon system that stores effluent through the summer so that no discharge occurs during the critical water quality period. Thus, loadings to the river are increased in the winter, but the flows in the Marys River are much greater at that time and the impacts significantly less.
 - b. Some smaller cities have few resources available to properly operate and maintain a mechanical sewage treatment plant. In such situations, it may be preferable to allow expansion of their present lagoon system resulting in increased loads during the wet weather period rather than requiring them to install a more efficient mechanical facility that cannot be reliably operated and maintained. An example would be the small sewage treatment plant at Henley School outside of Klamath Falls. The school district invariably seems to fail to put in the time and resources to properly operate and maintain its mechanical sewage treatment plant. Consequently, the plant frequently malfunctions and discharges much poorer effluent quality than would have been discharged by a lagoon which requires less operation and maintenance.
 - c. Although energy considerations have seemed to dim in most peoples' minds, it should still be a high priority with DEQ. While mechanical plants can achieve much better treatment than other less "high tech" systems, they do consume greater amounts of energy compared to lagoons and other "low tech" systems. In places where land is abundant and water quality considerations are not a concern because of ample dilution, low energy systems should be preferable.
 - d. High tech treatment systems also can generate secondary environmental problems that should be seriously considered. Large volumes of sludge is one example of a secondary problem that can be generated by installation of more sophisticated sewage treatment technology. In many areas west of the Cascade Mountains, the sludges may be difficult to dispose of, especially during the winter and spring, and may be of greater potential threat to public health and the environment than by allowing increased effluent loadings to the river during periods of high flow.

ATTACHMENT B

OREGON MAJOR INDUSTRIAL PERMITS AS OF APRIL 1, 1988

| NAME | LOCATION | REF. NO. | TYPE |
|---------------------------|-----------------------------|------------|-------------|
| Chevron Chemical Company | St. Helens | OR000163-5 | Fertilizer |
| Dee Forest Products, Inc. | Dee | OR000186-4 | Hardboard |
| Evanite Hardboard, Inc. | Corvallis | OR000029-9 | Hardboard |
| Georgia Pacific Corp. | Toledo | OR000134-1 | Pulp&Paper |
| International Paper Co. | Gardiner | OR000022-1 | Pulp&Paper |
| James River II, Inc. | Wauna | OR000079-5 | Pulp&Paper |
| James River II, Inc. | West Linn | OR000078-7 | Pulp&Paper |
| Northwest Aluminum | The Dalles | OR000170-8 | Aluminum |
| Ore-Ida Corporation | Ontario | OR000240-2 | Potatoes |
| Oregon Metallurgical | Albany | OR000171-1 | Titanium |
| Pennwalt Corporation | Portland | OR000159-7 | Chlorine |
| Pope & Talbot Pulp | Halsey | OR000107-4 | Pulp&Paper |
| Portland General Electric | Prescott | OR002345-1 | Nuc. Power |
| Reynolds Metals | Troutdale | OR000006-0 | Aluminum |
| Rhone-Poulenc, Inc. | Portland | OR000174-1 | Pesticide |
| Smurfit Newsprint | Newberg | OR000055-8 | Pulp&Paper |
| Smurfit Newsprint | Oregon City | OR000056-6 | Pulp&Paper |
| Teledyne Wah Chang Albany | Albany | OR000111-2 | Zirconium |
| Tillamook County Creamery | Tillamook | OR000014-1 | Cheese |
| Weyerhaeuser Company | North Bend | OR000211-9 | Pulp&Paper |
| Weyerhaeuser Company | Klamath Falls | OR000254-2 | Wood Prod. |
| Weyerhaeuser Company | Springfield | OR000051-5 | Pulp&Paper |
| Willamette Industries | Albany | OR000044-2 | Pulp&Paper |
| DELETIONS | - Hanna Mining and Nickel | OR000162-7 | (Closed) |
| ADDITIONS | - Dee Forest Products, Inc. | OR000186-4 | (Re-opened) |

MAJOR MUNICIPAL INSPECTION SCHEDULE -- FY89
July 1988 - June 1989

| Source | EPA Reference No. | 1st Quarter | | | 2nd Quarter | | | 3rd Quarter | | | 4th Quarter | | |
|-----------------------------|-------------------|-------------|---|---|-------------|---|---|-------------|---|---|-------------|---|---|
| | | J | A | S | P | N | D | J | F | M | A | M | J |
| Albany, City of | CR-002880-1 | | | | | | | | | | | | |
| Ashland, City of | CR-002625-5 | | | | | | | | | | | | |
| Astoria, City of | CR-002756-1 | | | | | | | | | | | | |
| Clackamas Co. Svc. Dist. #1 | CR-002622-1 | | | | | | | | | | | | |
| Coos Bay, City of #1 | CR-002357-4 | | | | | | | | | | | | |
| Coos Bay, City of #2 | CR-002358-2 | | | | | | | | | | | | |
| Corvallis, City of | CR-002636-1 | | | | | | | | | | | | |
| Cottage Grove, City of | CR-002055-9 | | | | | | | | | | | | |
| Grants Pass, City of | CR-002884-3 | | | | | | | | | | | | |
| Gresham, City of | CR-002613-1 | | | | | | | | | | | | |
| Hood River, City of | CR-002078-8 | | | | | | | | | | | | |
| Klamath Falls, City of | CR-002630-1 | | | | | | | | | | | | |
| La Grande, City of | CR-002046-0 | | | | | | | | | | | | |
| Lebanon, City of | CR-002081-8 | | | | | | | | | | | | |
| McMinnville, City of | CR-002619-1 | | | | | | | | | | | | |
| Medford, City of | CR-002626-3 | | | | | | | | | | | | |
| MVC | CR-003122-4 | | | | | | | | | | | | |
| Newberg, City of | CR-002025-7 | | | | | | | | | | | | |

ATTACHMENT B (Continued)

MAJOR MUNICIPAL INSPECTION SCHEDULE -- FY89
July 1988 - June 1989

| Source | EPA Reference No. | 1st Quarter | | | 2nd Quarter | | | 3rd Quarter | | | 4th Quarter | | |
|-----------------------------------|-------------------|-------------|---|---|-------------|---|---|-------------|---|---|-------------|---|---|
| | | J | A | S | O | N | D | J | F | M | A | M | J |
| North Bend, City of | CR-002336-1 | | | | | | | | | | | | |
| Oak Lodge Svc. Dist. | CR-002614-0 | | | | | | | | | | | | |
| Penitentiary, City of | CR-002639-5 | | | | | | | | | | | | |
| Portland, City of (Col. Blvd) | CR-002690-5 | | | | | | | | | | | | |
| Portland, City of (Troy Cr.) | CR-002689-1 | | | | | | | | | | | | |
| REA (Rossburg) | CR-002258-6 | | | | | | | | | | | | |
| Salem, City of (Willow Lake) | CR-002640-9 | | | | | | | | | | | | |
| South Suburban Svc. Dist. | CR-002387-6 | | | | | | | | | | | | |
| St. Helens, City of | CR-002387-6 | | | | | | | | | | | | |
| The Dalles, City of | CR-002066-4 | | | | | | | | | | | | |
| Tillamook, City of | CR-002066-4 | | | | | | | | | | | | |
| Tri-City Svc. Dist. (Oregon City) | CR-002829-1 | | | | | | | | | | | | |
| U.S.A. (Durham) | CR-002811-8 | | | | | | | | | | | | |
| U.S.A. (Forest Grove) | CR-002016-8 | | | | | | | | | | | | |
| U.S.A. (Rock Creek) | CR-002977-7 | | | | | | | | | | | | |
| U.S.A. (Westside) | CR-002334-5 | | | | | | | | | | | | |
| Woodburn, City of | CR-002000-1 | | | | | | | | | | | | |

ATTACHMENT B(Continued)

WJ557.2



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

TO: ENVIRONMENTAL QUALITY COMMISSION

FROM: DIRECTOR *Jed*

RE: AGENDA ITEM L, June 10, 1988, EQC MEETING

REQUEST FOR INCREASE LOAD ALLOCATION UNDER OAR
340-41-026(2) FROM PORTLAND GENERAL ELECTRIC FOR
AN EXPANSION OF THE SEWAGE TREATMENT PLANT SERVING
THE TROJAN NUCLEAR POWER PLANT

EXECUTIVE SUMMARY

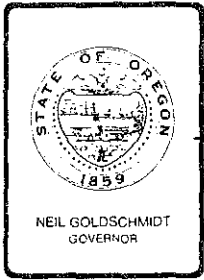
Portland General Electric operates a small sewage treatment facility to serve its Trojan Nuclear Power Plant. The sewage treatment plant is too small to adequately treat the increased wastewater loads from the plant. Wastewater loads have increased due to a larger work force at the plant.

The company has evaluated the options available to them for increasing their ability to treat sewage at the plant, and had requested approval be granted for increasing its allowable discharge limit by a monthly average of 12.5 pounds of biochemical oxygen demand and total suspended solids. The company's evaluation of other alternatives which would not increase loads discharged were more expensive or impractical.

Under the Commission's rules, additional load allocations must be specifically approved by the Commission.

The Department had concluded that the increased 12.5 pounds in BOD and suspended solids will have no affect on the Columbia River, and are recommending the Commission grant the requested increase and the National Pollutant Discharge Elimination System permit for the facility be so modified. Public comment has been solicited on this proposed request and a public hearing held. No comments were received.

RP1404A



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

MEMORANDUM

TO: ENVIRONMENTAL QUALITY COMMISSION

FROM: DIRECTOR

RE: AGENDA ITEM L, June 10, 1988, EQC MEETING

REQUEST FOR INCREASE LOAD ALLOCATION UNDER OAR
340-41-026(2) FROM PORTLAND GENERAL ELECTRIC FOR
AN EXPANSION OF THE SEWAGE TREATMENT PLANT SERVING
THE TROJAN NUCLEAR POWER PLANT

BACKGROUND

The Trojan Nuclear Power Plant is located near Rainier, Oregon on the Columbia River. The facility, built in 1974, included a small sewage treatment plant to serve a planned permanent staff of 60 persons (20 people per shift, 3 shifts per day). The 25,000 gallon per day treatment plant includes two aeration basins, a final clarifier, and a chlorine contact chamber for disinfection. The National Pollutant Discharge Elimination System (NPDES) Permit for the facility allows 20 milligrams per liter (mg/l) of total suspended solids (TSS) and 20 milligrams per liter of biochemical oxygen demand (BOD) to be discharged during the summer; 30 mg/l is allowed in winter months. Total pounds of solids and BOD allowed to be discharged are 4.2 pounds each on a monthly average, with a peak daily concentration of 30 mg/l equaling a total of 6.3 pounds allowed. The treated effluent is discharged to the Columbia River at river mile 72.5.

Currently, the sewage plant serves a work force of 350 people. In addition, more than 1,000 additional workers are on-site during the annual refueling and maintenance shutdown.

PROBLEM

In addition to the seasonal influx, PGE plans to transfer additional permanent staff to the plant. The larger work force at the facility overloads the sewage treatment plant, and permit limits have been exceeded. Portland General Electric responded to a Regional Notice of Violation issued June 29, 1987 (NWR-WQ-87-88) with a plan to expand the plant to handle the current and anticipated work force.

After considering a variety of alternatives, Portland General is proposing to increase the treatment capacity of the sewage treatment system from its current 25,000 gallons per day to 75,000 gallons per day. This would increase the allowable discharge in the summer months from a total monthly average of 4.2 pounds to 12.5 pounds. Discharge limits would remain at 20 mg/l suspended solids and BOD as required in the applicable water quality basin standards (Oregon Administrative Rule (OAR) 340-41-215(1)).

The table below summarizes the company's request:

| | Current Permitted <u>25,000 GPD</u> ¹ | Requested <u>75,000 GPD</u> |
|--------------------------------|---|--------------------------------|
| Monthly average concentrations | 20 mg/l BOD/TSS | 20 mg/l BOD/TSS |
| Monthly average discharge | 4.2 pounds BOD/TSS | 12.5 pounds BOD/TSS |
| Daily Maximum | 6.3 pounds BOD/TSS | 25.0 pounds BOD/TSS |

¹ Gallons Per Day

The Commission's policy is that growth is to be accommodated within existing load allocations, OAR 340-41-026(2). This policy states that, "In order to maintain the quality of waters in the State of Oregon, it is the policy of the EQC to require that growth and development be accommodated by increased efficiency and effectiveness of waste treatment and control such that future discharge loads from existing sources do not exceed presently allowed discharged loads unless otherwise specifically approved by the EQC."

This policy recognizes that the assimilative capacity of rivers is limited and maintenance of water quality, while accommodating growth will require more stringent controls.

ALTERNATIVES

1. HOLD COMPANY TO CURRENT DISCHARGE LIMITS

To ensure no additional violations of the permit limits due to the additional staff at the facility, the company would need to:

- A. Provide a higher level of treatment;
- B. Spray irrigate the wastewater on land; or
- C. Use ponds or tanks to store the wastewater.

Portland General Electric explored each of these options. A summary of each of these alternatives is explored below.

A. TREAT THE LARGER SEWAGE LOAD TO HIGHER STANDARDS TO STAY WITHIN PERMIT POUNDAGE LOADINGS.

To serve a larger workforce and to meet current permit load limits, the sewage treatment plant would need to meet concentration limits of 6.7 mg/l for BOD and TSS. After analysis, consultants for the company concluded that a dual media filtration system would best meet these treatment standards. The company estimates that the additional construction costs would be \$375,700 and an additional \$20,000 per year in operational costs. This would amount to a 34% increase in cost and complexity of operation on a present-worth basis.

B. FLOW EQUALIZATION HOLDING POND.

This alternative would have the company expanding its treatment abilities, along with building a storage pond at the site to hold the increased load which occurs during power outages. This treated water would be held and added back into the effluent slowly at levels below the current permitted levels. The Company indicates that no area on site is suitable for building a pond.

The PGE estimates of this alternative exceed the costs of expanding the sewage treatment plant by \$730,000 or 51%.

C. WINTER STORAGE, SUMMER IRRIGATION.

Effluent over the permitted discharge of 25,000 gallons per day (gpd) could be irrigated. The company indicates the nearest suitable land for irrigation is 2 miles from the plant. A pipeline and pump stations would be necessary for transporting the effluent. The company estimates this would cost an additional 72% over expanding the sewage treatment plant.

Attachment A summarizes the company's estimates of the costs of each of these alternatives.

2. ALLOW THE COMPANY AN INCREASE IN DISCHARGE LIMITS TO ACCOMMODATE 75,000 GPD OF TREATED EFFLUENT.

At the Trojan Plant, the Columbia River ranges from a low flow of 120,000 cubic feet per second (cfs) to peak flows of 450,000 cfs. At these flows the existing discharge is diluted by a low of over 9500:1 to over 19,000:1. The proposed increase would be diluted by a high of 6500:1 to a low of 3200:1. Dilution available is well above the needed factor of 20:1 for an effluent BOD of 20 mg/l.

The impacts of the current sewage treatment plant have been studied extensively. No impacts on the Columbia River or aquatic life have been documented from the current discharge.

ANALYSIS

Additional sewage treatment capability is necessary at the Trojan Plant to handle the current and planned work load. Treating the necessary increase in wastewater to the requirements in the basin standards (20/20) would produce an additional 12.8 pounds of BOD and suspended solids to be discharged to the Columbia River. The Department has concluded this increase will have no impact on the Columbia River or its beneficial uses.

PUBLIC COMMENT

The Department issued a public notice on the proposed increase (Attachment C) and held a public hearing on the proposed modification April 20, 1988 (Attachment D). No comments were received.

SUMMARY

1. The Trojan Nuclear Power Plant, near Rainier, has increased its work force beyond that originally planned for when the plant was built in 1974.
2. The increased number of workers overloads the existing sewage treatment plant, causing violations of the plant's NPDES permit.
3. The company has proposed to increase the size of its plant such that it can adequately treat the sewage loads.
4. Increases in permitted loads require action by the Environmental Quality Commission under OAR 340-41-026(2).
5. There are alternatives available to the company which would allow them to treat the additional wastewater and stay within the existing permit. The company has presented estimates showing that these alternatives range in cost from \$375,000 to \$730,000 in additional capital outlay costs. In addition, \$20,000 to \$60,000 additional annual operation and maintenance costs would be incurred.
6. The Department has concluded that the increase of 12.8 pounds of BOD and suspended solids will have no impact on Columbia River quality or its beneficial uses.
7. Public comments were solicited on the proposed permit. None were received.

EQC/PGE/Trojan Plant
June 10, 1988
Page 5

RECOMMENDATION

The Director recommends that the Commission grant the requested increase for 12.8 pounds of additional loading to Portland General Electric for the Trojan Nuclear Power Plant, and that the Department modify the plants NPDES permit as appropriate.



Fred Hansen
Director

JA Gillaspie
229-5292
RP1404
Attachments

- A. Portland General Electric estimates of treatment costs
- B. Request from Portland General Electric
- C. Public Notice
- D. Hearing Officer's report
- E. Proposed modified permit

GFD

WO-COL
PGE
TROJAN

H-7

TABLE 11
COMPARISON OF PROPOSED STP AND ALTERNATIVES

| Costs | Proposed STP Expansion to 75,000 GPD | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Flow Equal Over 25,000 gpd (Holding Pond + Alternative 1) | Flow Equal Over 25,000 gpd (Holding Pond + Alternative 2) | Winter Storage Summer Irrigation Over 25,000 gpd + Proposed STP | Winter Storage Summer Irrigation Over 25,000 gpd + Alternative 1 |
|-------------------------------------|--|---------------|---------------|---------------|---------------|--|--|--|---|
| Construction | \$ 811,700 | | | | | \$1,917,400 | \$2,309,200 | \$1,517,950 | \$1,517,950 |
| O&M/Year | 78,000 | | | | | 121,600 | 183,000 | 137,855 | 137,855 |
| Present Worth (O&M) | 1,166,400 | | | | | 1,743,900 | 2,651,400 | 1,886,400 | 1,886,400 |
| Total Present Worth | \$1,978,100 | \$2,651,300 | \$3,950,000 | \$3,950,000 | \$3,950,000 | \$3,661,300 | \$4,960,600 | \$3,404,350 | \$3,404,350 |
| Operational Com- plexity Rating* | 10 | 3 | 2 | 8 | 2 | 2 | 2 | 7 | 7 |
| Reliability Rating* | 10 | 4 | 3 | 8 | 3 | 3 | 2 | 6 | 6 |
| Energy Consumption Rating* | 10 | 6 | 5 | 9 | 5 | 5 | 4 | 3 | 3 |

Reduce this
page to
8 1/2 x 11"
paper.

* 10 is best, 1 is worst.

SK/rn
T-3427f



Portland General Electric
121 S. W. Salmon Street
Portland, Oregon 97201

P6E - Trojan
W6 - Columbia

PROPOSED SEWAGE TREATMENT PLANT AT TROJAN

I. Introduction

The original sewage treatment plant (STP) at Trojan was designed for a permanent staff of approximately 60 persons (20 per shift for three shifts) plus visitors. That STP was designed to treat a monthly average flow of 15,000 gallons per day. Early on, it became apparent the plant was inadequate and the monthly average flow was increased to 25,000 gallons per day. Limits for suspended solids and BOD as given in the NPDES permit are 20 mg/l (loading of 4.2 pounds) for monthly averages and 30 mg/l (loading of 6.3 pounds) for daily maximums. Over the past several years the permanent plant staff has increased to approximately 350 persons. In addition, more than 1,000 additional workers are on site during the annual refueling/maintenance shutdown.

The increased usage has exceeded the capacity of the STP and discharge limits are frequently exceeded during periods of high usage. Heavier STP usage will be experienced in the future. The Trojan Engineering Staff will be relocated to the plant site from Portland and will approximately double the number of permanent employees. This increased load on the sanitary facilities at Trojan will actually be a shift from the Portland metropolitan area downstream to the Trojan area. Similarly, there will be a shift of loading during the annual refueling/maintenance shutdown if a significant number of temporary personnel and/or contractors are hired from the local area.

The water used in the domestic water system (and is discharged through the sewage treatment plant) is withdrawn from the Columbia River and treated in the water plant prior to use. Background levels of suspended solids and BOD have been removed prior to the additions from the sewage effluent. The additions are, therefore, lessened due to the background removals.

URS Corporation was retained to design a STP to adequately treat the increased amounts of sewage which are and will be discharged. A copy of the "Wastewater Treatment Predesign Study" dated August 1987 prepared by URS has been previously submitted to the Oregon DEQ. In addition, URS has submitted a letter summary dated January 20, 1988 (Attachment A) evaluating the chosen option, a sequencing batch reactor, with other alternatives.

Proposed Sewage Treatment Plant/Trojan
March 2, 1988

PGE is requesting authorization to construct the STP as recommended by URS. The recommended monthly average flow limit of 75,000 gallons per day will result in the following discharge loadings for BOD and suspended solids:

TABLE 1

Loadings of Suspended Solids and BOD From Proposed STP

| <u>Summer (June through October)</u> <u>at 20 mg/l</u> | <u>Winter (November through May)</u> <u>at 30 mg/l</u> |
|---|---|
| Average Month - 12.5 lb/day | Average Month - 18.8 lb/day |
| Maximum Week - 18.8 lb/day | Maximum week - 28.1 lb/day |
| Maximum day - 25.0 lb/day | Maximum day - 37.5 lb/day |

The policy of the State of Oregon is to accommodate increases in discharge flows from sewage facilities within existing loading limits. The following information and appended material are presented to justify PGE's request to increase the discharge loadings from the STP to the Columbia River.

II. Present Conditions at Outfall and Mixing Zone

A. Dispersion Effects and Tidal Currents

The effluent from the existing STP is discharged to the Columbia River at River Mile (RM) 72.7 at -3.0 feet mean sea level (MSL) and the effluent from the proposed STP will be discharged at the same point. (See Figures 1 and 2). This effluent is mixed and dispersed within the Columbia River by river and tidal currents.

As described in the Trojan Final Environmental Impact Statement (USAEC Docket No. 50-344), low river flows, which occur in late summer and fall range from 120,000 cubic feet per second (cfs) to 170,000 cfs with average current velocities of 1.0 foot per second (fps) to 1.5 fps. High flows are during spring runoff (usually peaking in May or June) and can range from 450,000 cfs to 700,000 cfs with average current velocities of 2.0 fps to 3.0 fps. (This is the time of the year when the annual refueling shutdown is scheduled and the sewage treatment plant would likely incur highest usage).

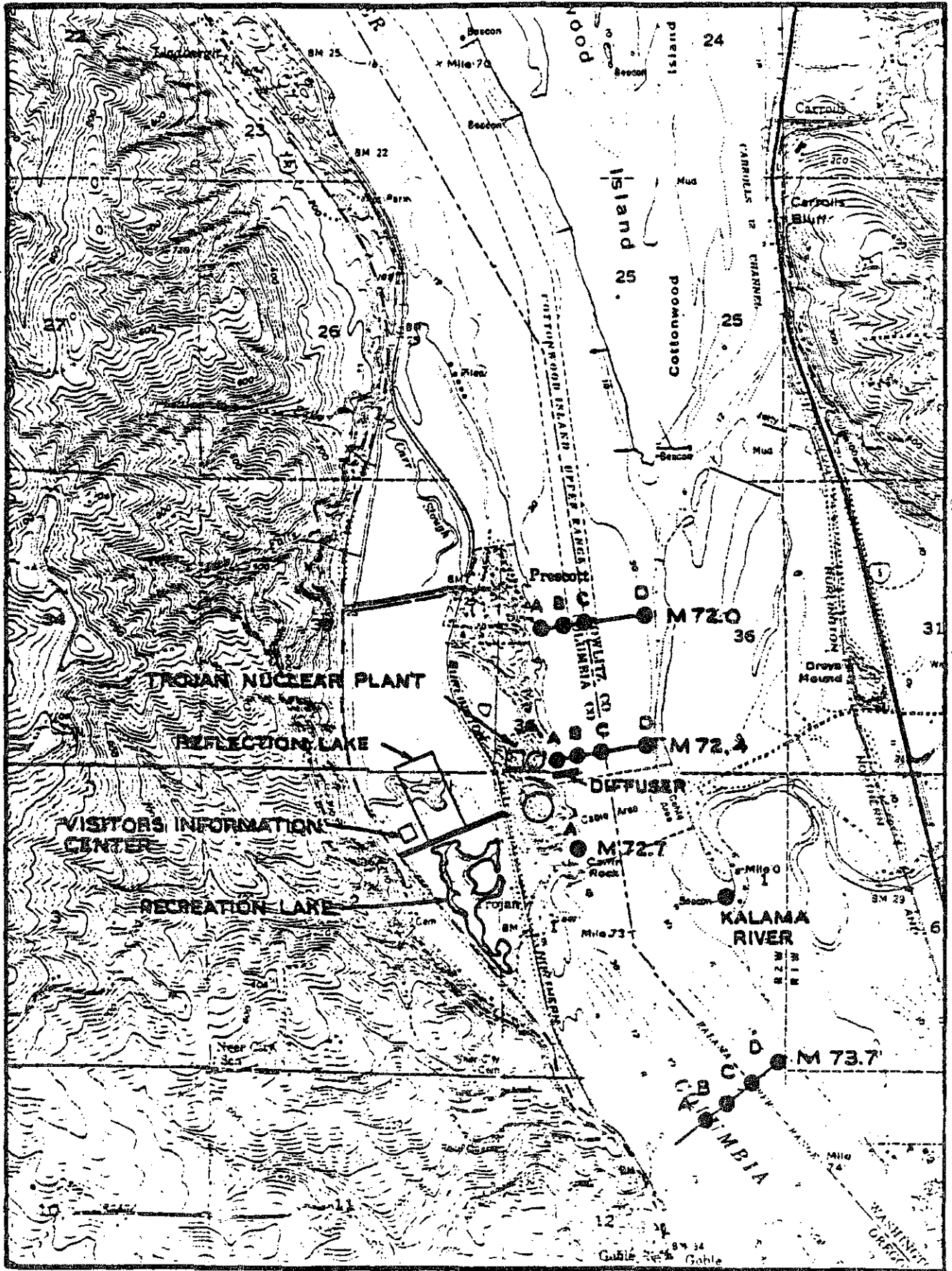
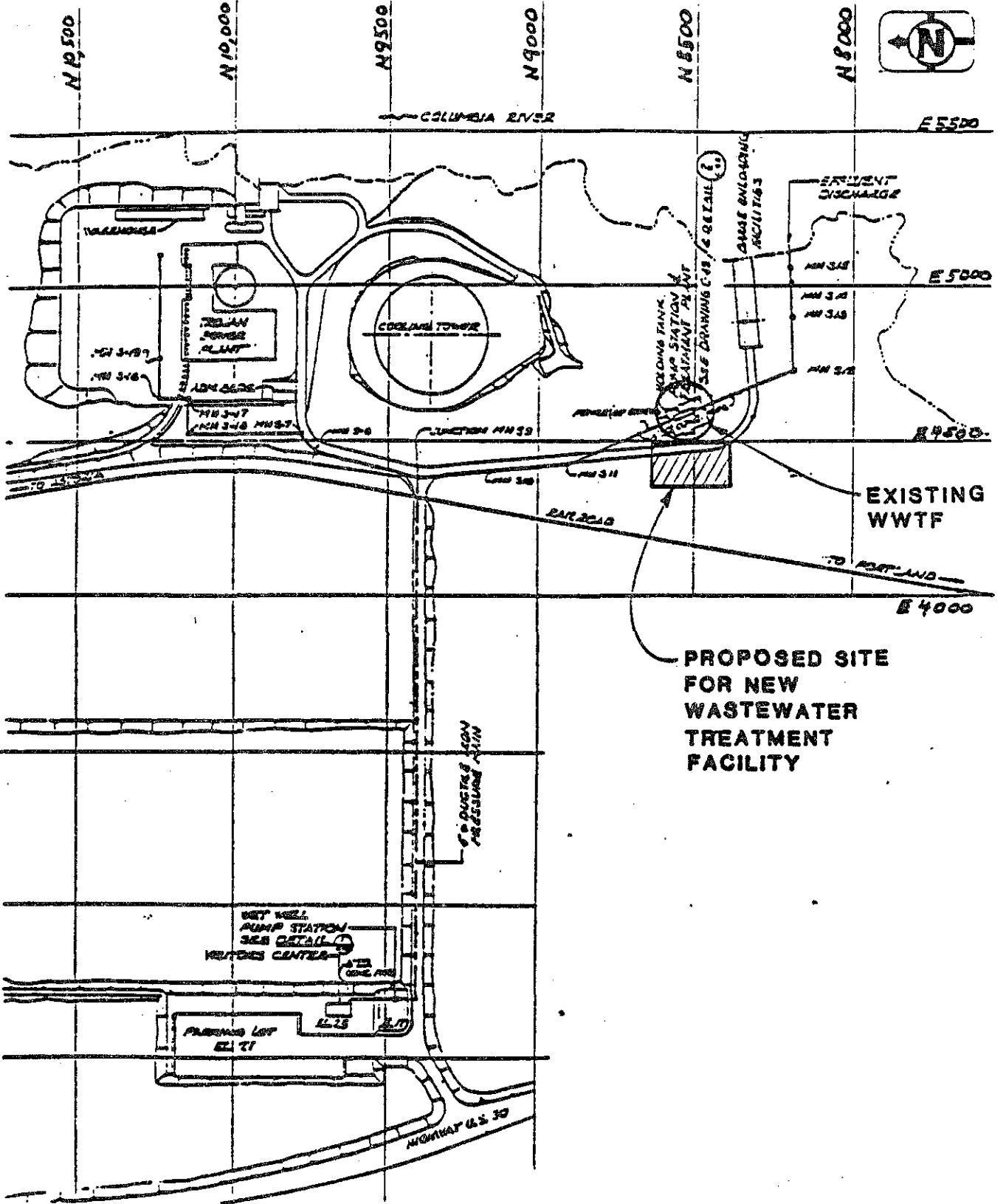


Figure 1 Sampling areas Columbia River Physical/Chemical Parameters, 1974 through 1980



URS
CORPORATION

**LOCATION MAP
WASTE WATER TREATMENT FACILITY**

PGE-TROJAN WWTF PREDESIGN

**FIGURE
1.1**

The average current velocity of 1.9 fps occurs with the average flow of 230,000 cfs. The above stated current velocities are averages. Ebb tide velocities may be 20 percent to 30 percent greater and may be 40 percent less near shore (where the discharge is located). Tidal reversals do occur in the area and are caused by a combination of high tides and river flows of less than 190,000 cfs. Flow reversal occurs on about one-quarter of the tides during a normal year, meaning reversal occurs to some extent with every tide during the three months of low river flow (mid-August to mid-October). See Figures 3 to 11 (on the scale, 1 knot is equal to approximately 1.7 fps). These tidal reversals occur at planned non-peak periods of sewage plant usage. During a tidal reversal, the effluent plume would be directed upstream and be dispersed in that direction. On the ebbing tide when the river again flows downstream, the much diluted effluent would again be directed downstream and additionally diluted and dispersed.

B. Monitoring of Columbia River (1974 through 1980)

The STP outfall area was monitored from 1974 through 1980 as part of the Trojan Environmental Monitoring Program. Similar parameters were monitored upstream of the STP outfall at RM 73.7 and downstream at RM 72.4 and 72.0. Four sampling sites were visited monthly at RM 72.0, 72.4, and 73.7, Site A was nearest the Oregon Shore with Sites B and C being progressively farther offshore. Site D was near the Washington shore (see Figure 1). Comparison of data from the aforementioned sampling sites with monthly data from Site 72.7A was the basis to investigate the possibility of impacts on Columbia River water quality from the STP effluent. Since the "A" sampling sites are in closer proximity to the distance from the Oregon shore at which the STP effluent is discharged, the "A" station data were compared with data from Site 72.7A. Copies of data collected from 1974 through 1980 are appended for reference (Attachment B).

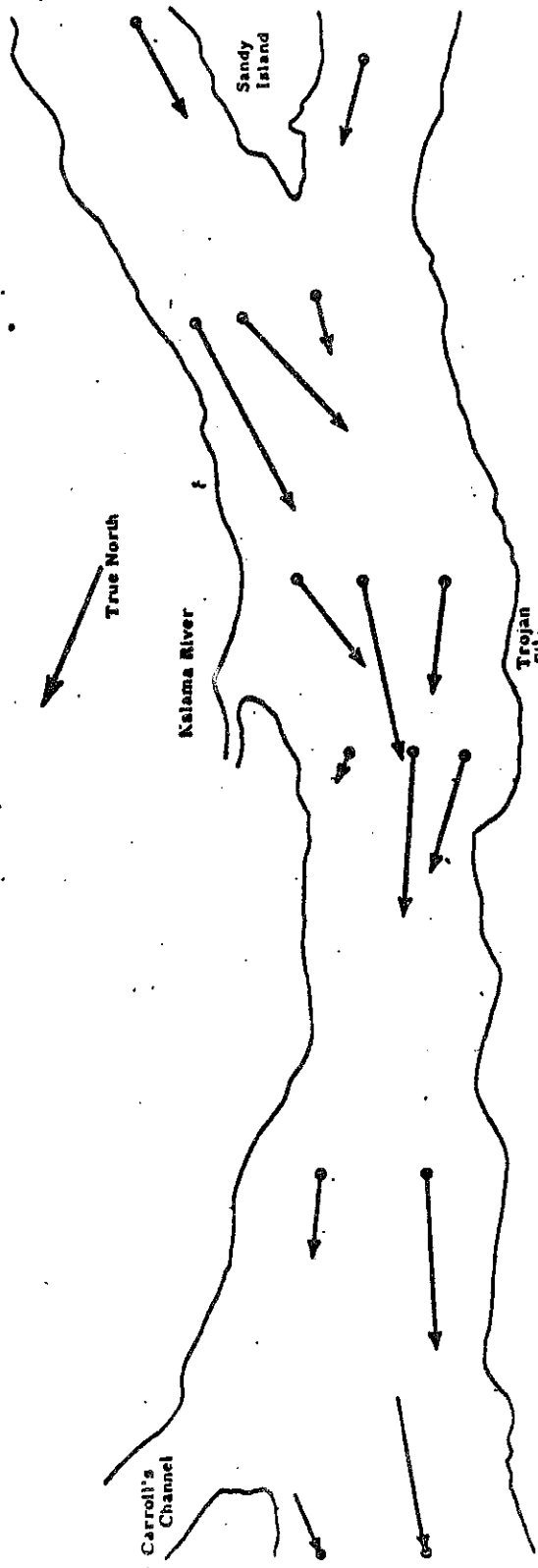


FIGURE 3
 CURRENT MAP FOUR HOURS
 BEFORE HIGH WATER AT ASTORIA

From
 Environmental
 Report
 Amendment 2
 (6/28/72)

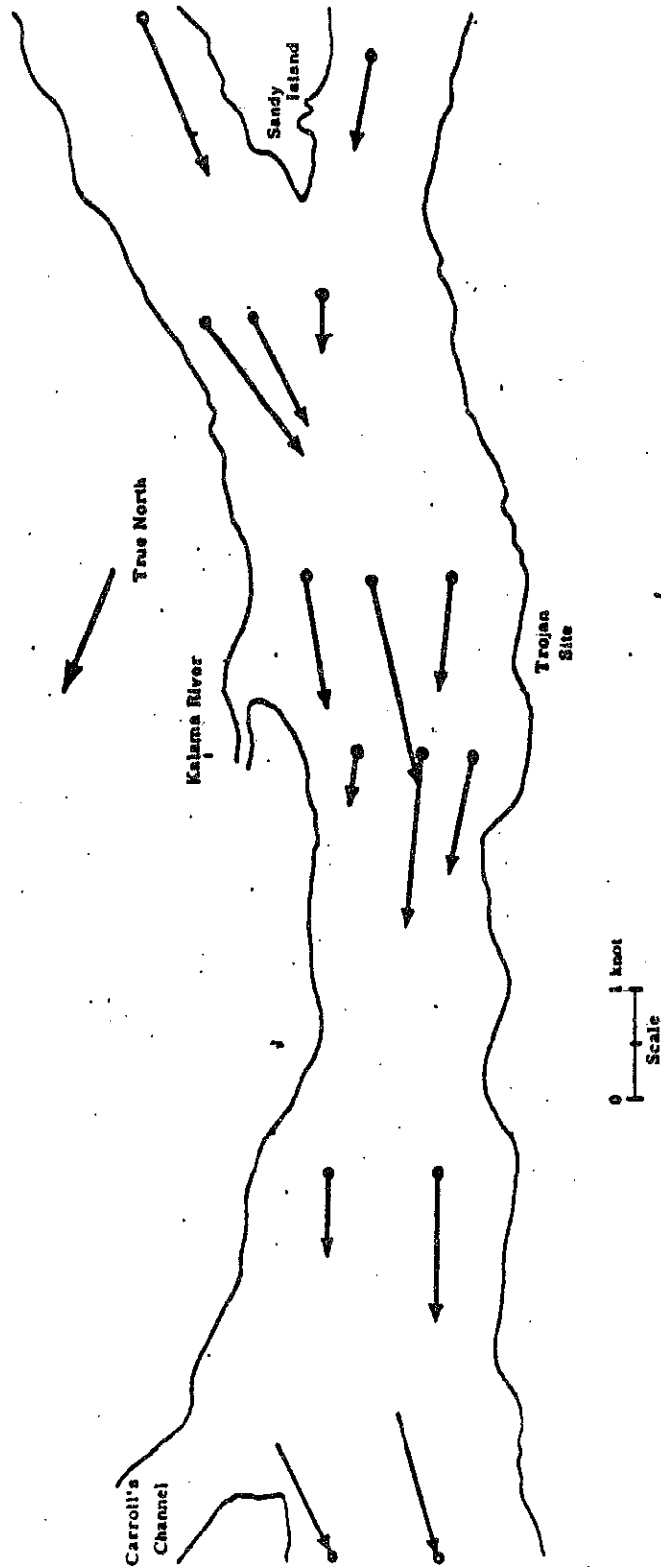


FIGURE 4
 CURRENT MAP THREE HOURS
 BEFORE HIGH WATER AT ASTORIA

From
 Environmental
 Report

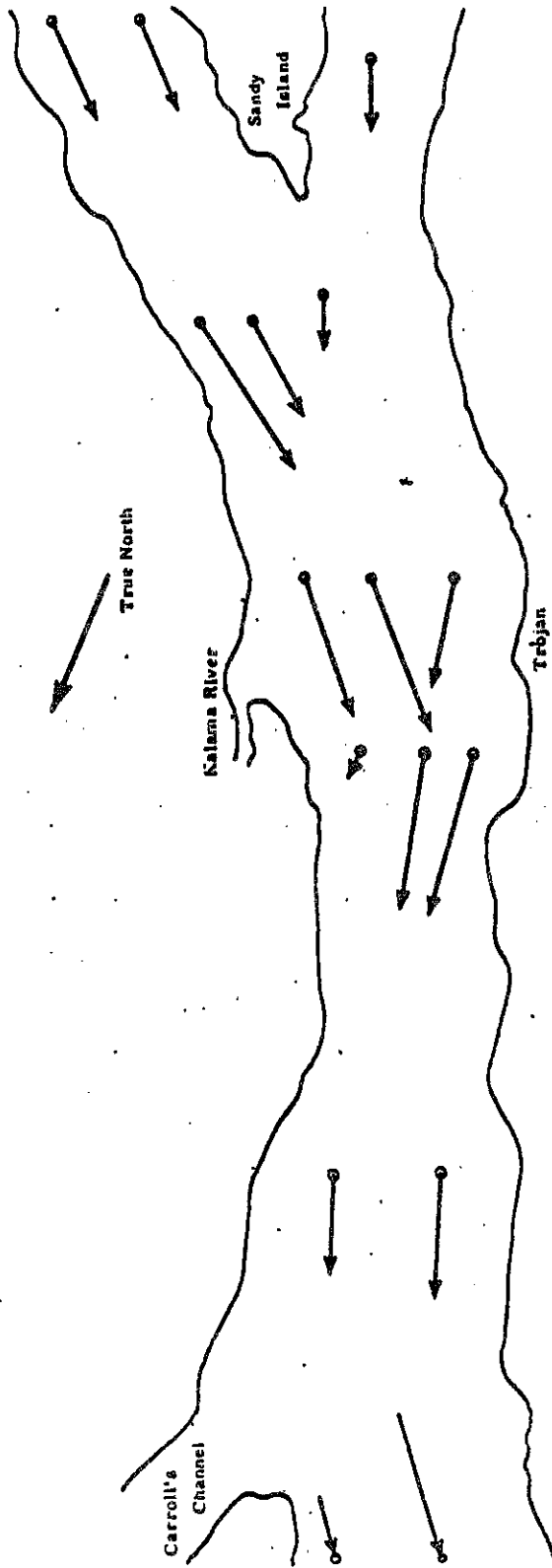
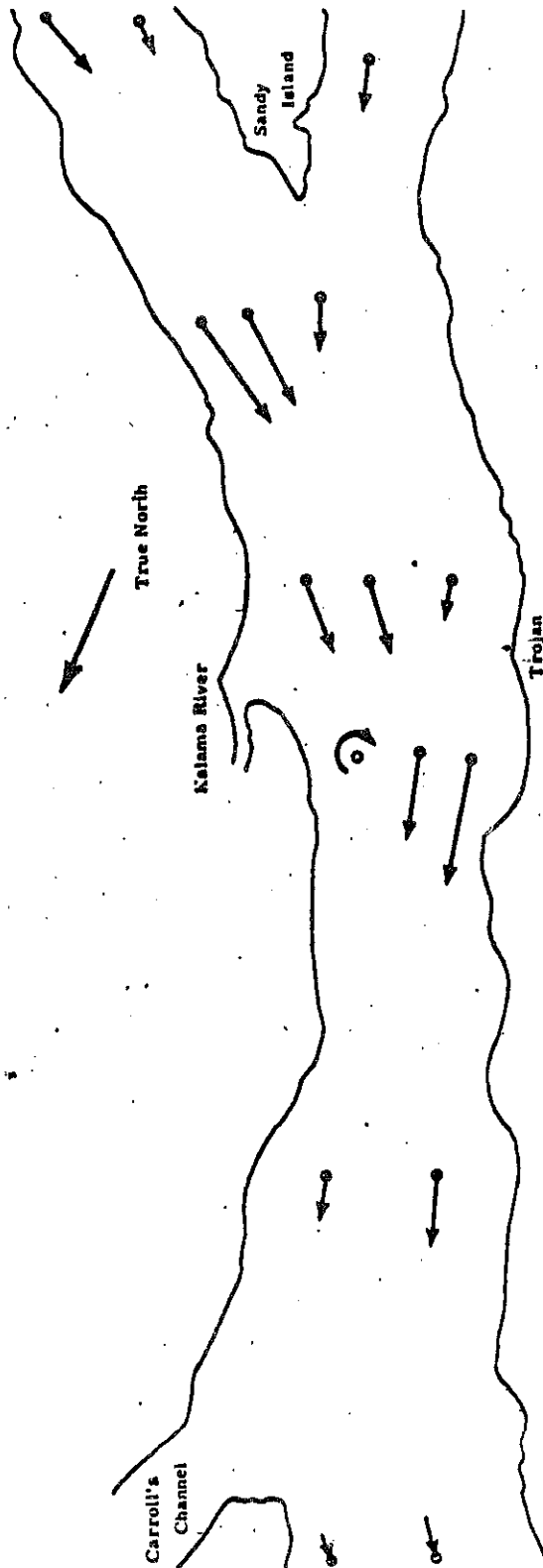


FIGURE 5
 CURRENT MAP TWO HOURS
 BEFORE HIGH WATER AT ASTORIA

From
 Environmental
 Report

Amendment 2
 (6/28/77)



— FIGURE 6

CURRENT MAP ONE HOUR
BEFORE HIGH WATER AT ASTORIA

From
Environmental
Report
Amendment 2
(6/28/72)

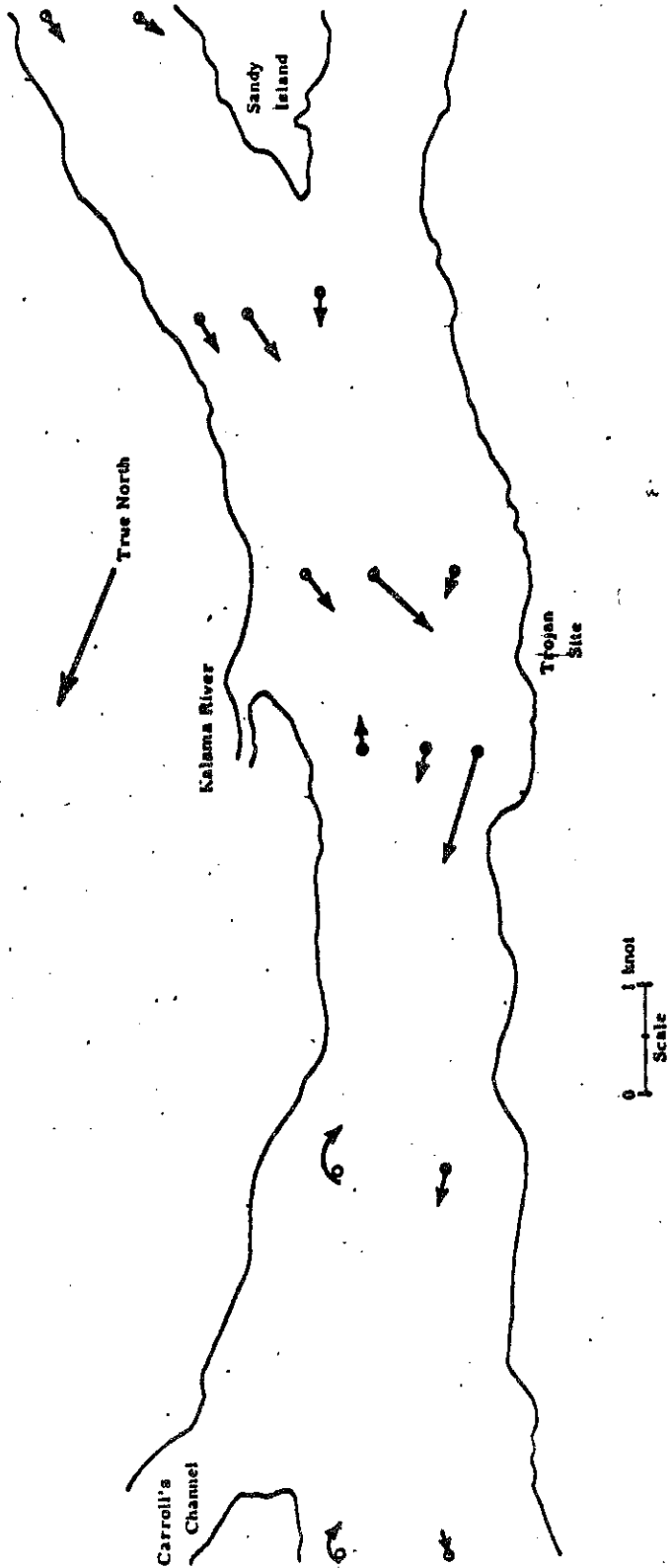


FIGURE 7
HIGH WATER AT ASTORIA

From
Environmental
Report
Amendment 2
(6/28/72)

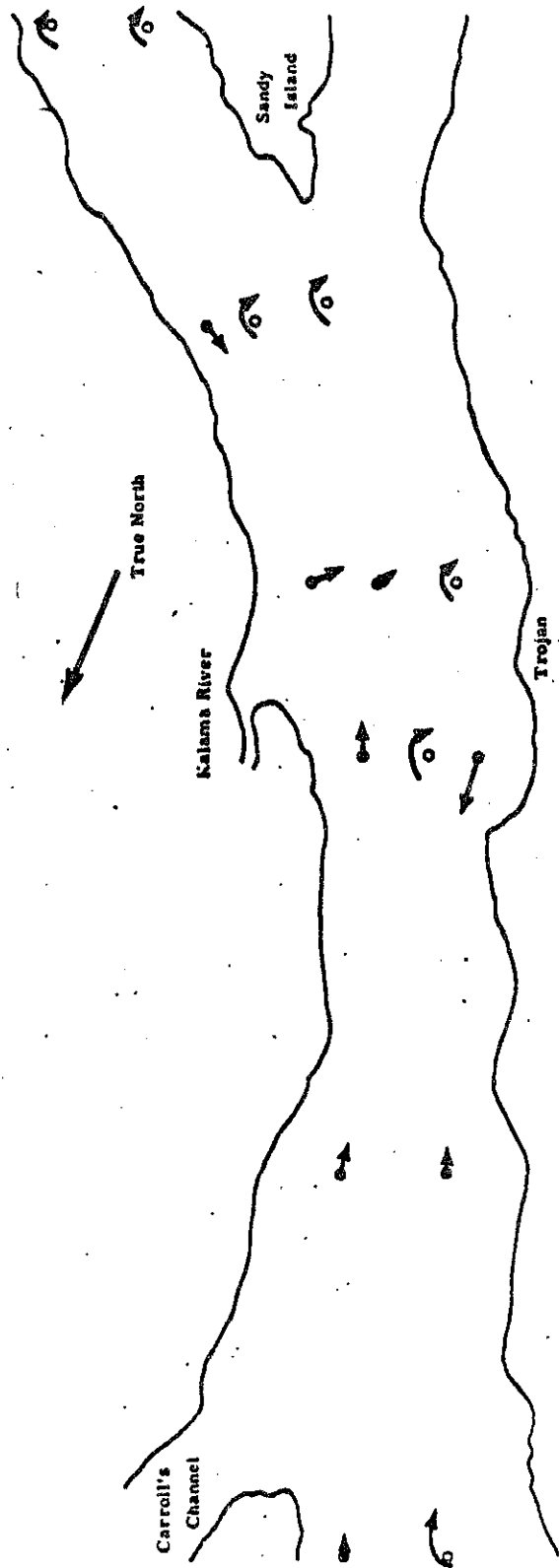


FIGURE 8
CURRENT MAP ONE HOUR AFTER
HIGH WATER AT ASTORIA

From
Environmental
Report
Amendment 2
(6/28/72)

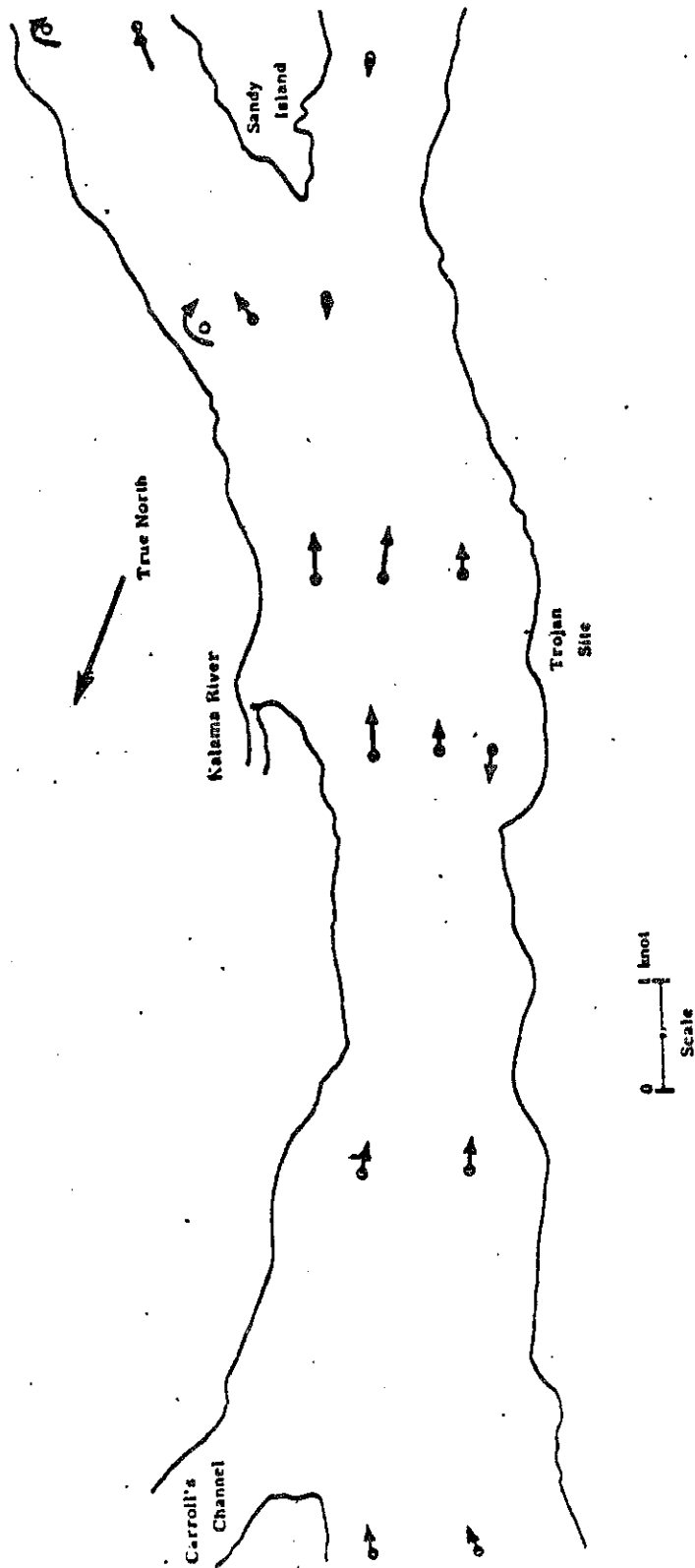


FIGURE 9
 CURRENT MAP TWO HOURS AFTER
 HIGH WATER AT ASTORIA

From
 Environmental
 Report

Amendment 2
 (6/28/72)

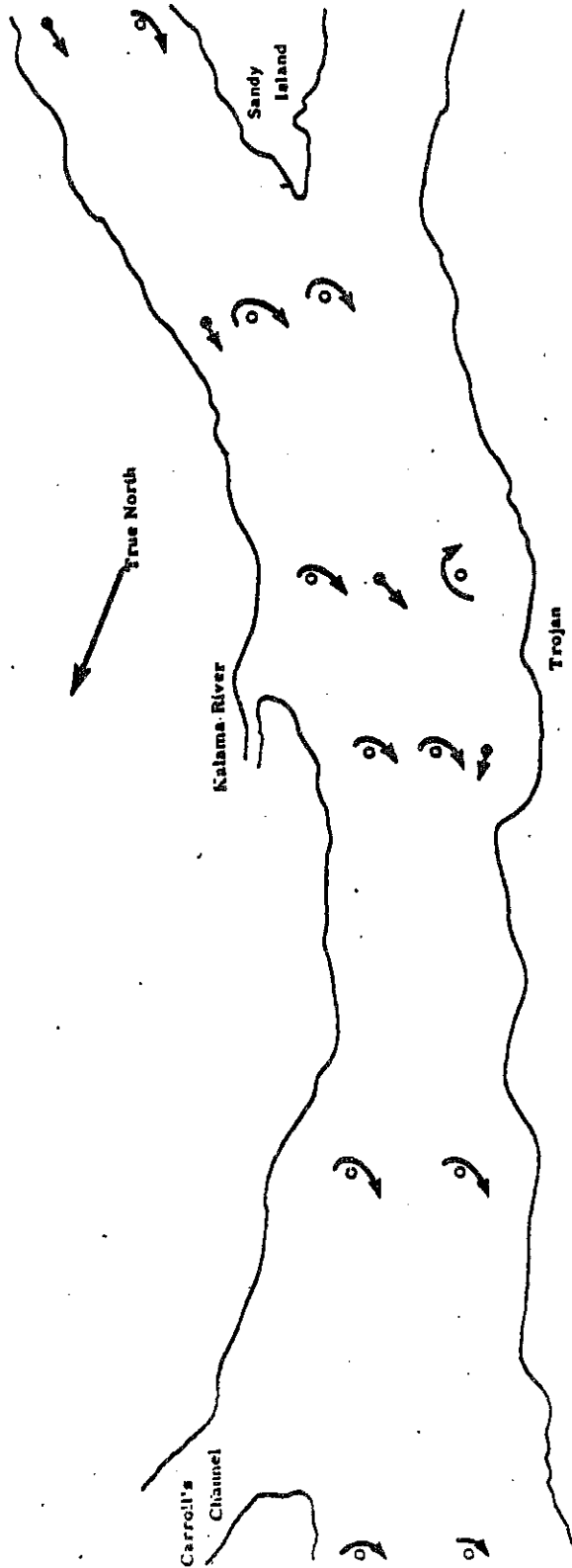


FIGURE 10
CURRENT MAP THREE HOURS AFTER
HIGH WATER AT ASTORIA

From
Environmental
Report

Amendment 2
(6/28/77)

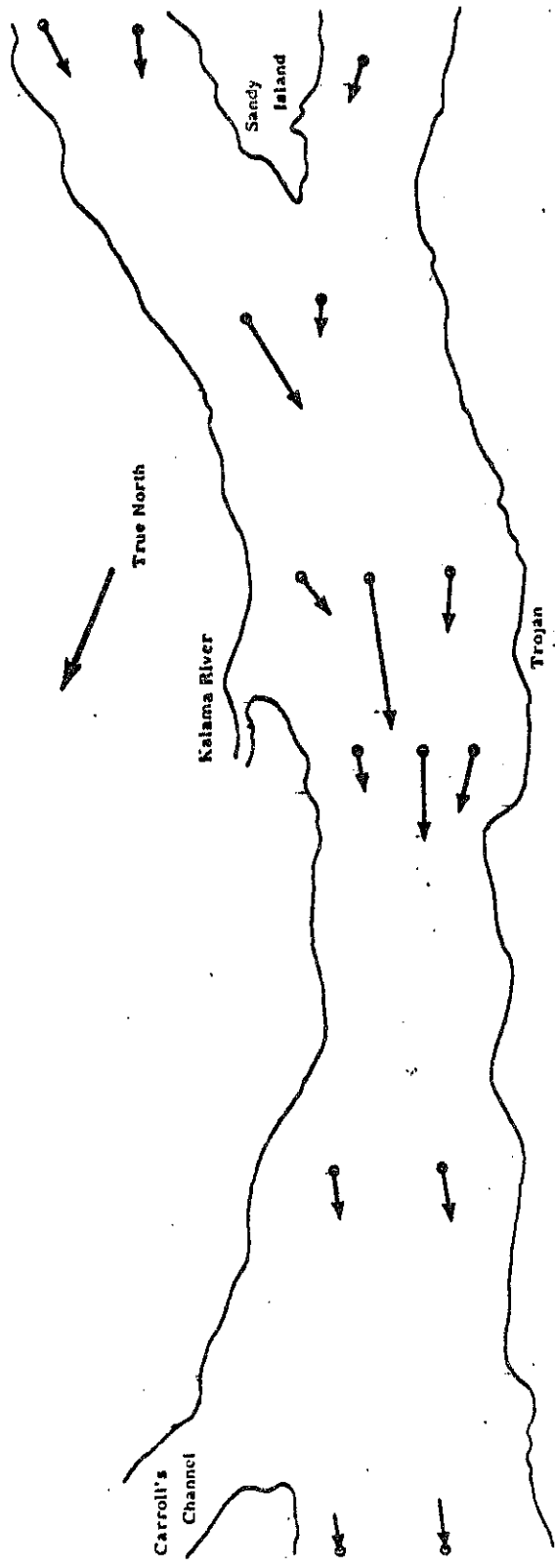


FIGURE 11
CURRENT MAP FOUR HOURS AFTER
HIGH WATER AT ASTORIA

From
 Environmental
 Report
 Amendment 2
 (6/28/72)

Proposed Sewage Treatment Plant/Trojan
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Since the parameters measured at the STP discharge (pH, total alkalinity, turbidity, residual chlorine, sulfate, total phosphate, secchi disk transparency, conductivity, dissolved oxygen, percent oxygen saturation, and temperature) were similar to comparable data from upstream and downstream stations (from Preoperation and Operational ecological Monitoring Program for the Trojan Nuclear Plant Annual Reports 1974 through 1980) this portion of the program was terminated after 1980 (program changes and agency concurrence documents as listed below are appended for reference as Attachment C).

1. Letter from Robert A. Clark, USNRC to Bart D. Withers, PGE dated May 14, 1981.
2. Letter from William H. Young, ODEQ to P.Y. Cree, PGE dated June 21, 1981.
3. Letter from Robert U. Mace, ODFW to P. Y. Cree, PGE dated July 9, 1981.
4. Letter from Donald J. Broehl, PGE to Lynn Frank, ODOE dated August 26, 1981.
5. Letter from Lynn Frank, ODOE to Donald J. Braehl, PGE dated September 16, 1981.

C. Monitoring of the Columbia River (1981 through 1986).

Monitoring of the sewage treatment outfall ceased after 1980 since no impacts were noted. Monitoring at the upstream and downstream stations was decreased in frequency at this time (see Figure 12). Parameters monitored from 1981 through 1986 are pH, total alkalinity, secchi disk transparency, conductivity, dissolved oxygen, temperature, and percent oxygen saturation. Chlorophyll pigments are measured as an indicator of biological productivity. Data collected from 1981 through 1986 are appended for reference (See Attachment B). As stated in the Operational Ecological Monitoring Program For the Trojan Nuclear Plant Annual Reports 1981 through

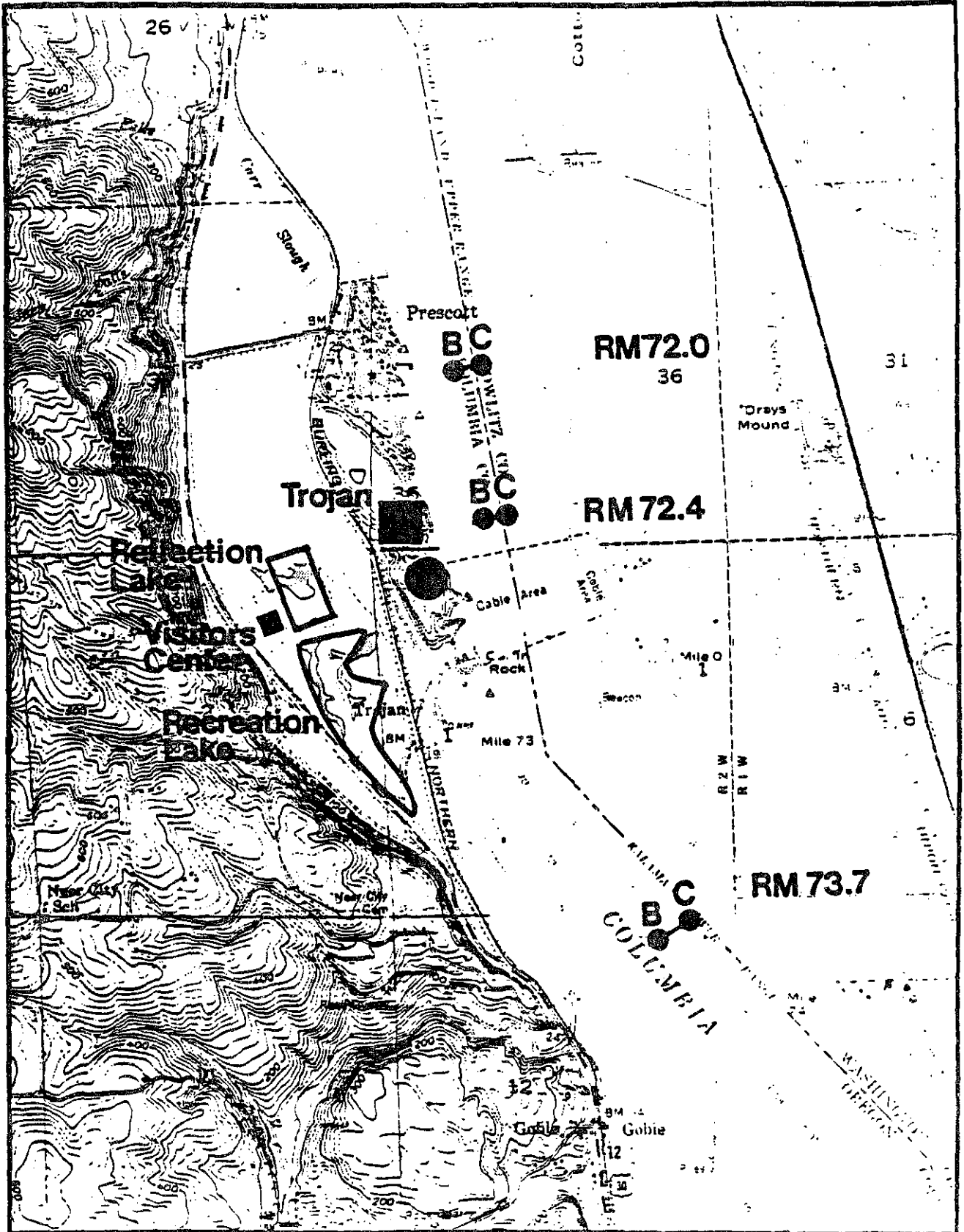


FIGURE 12. Sampling areas Columbia River Physical/Chemical Parameters, 1981 to the present

1986, variations between sampling sites were attributed to regional climatic and upstream influences. Cross stream variations were attributed to natural variations in water quality between the Willamette and Columbia Rivers. During periods of the year, water quality on the Oregon side of the river is influenced predominately by Willamette River flows and water quality on the Washington Side of the river is influenced predominately by Columbia River water flows. In none of the years since routine monitoring was initiated have impacts on Columbia River water quality been caused by operations of the Trojan plant.

D. Available Assimilative Capacity

As indicated previously, no impact on the water quality of the Columbia River has been attributed to any operation of the Trojan Nuclear Plant. Samples taken above and below the STP outfall have not shown impacts of this discharge. It has been calculated the average concentration of BOD and suspended solids in the Columbia River will be increased by 0.000014 ppm. That value is well beyond detection limits and is overshadowed by natural variations. It is clear that additional loading will have no demonstrable impact on the river.

The existing average high flow limit for the sewage treatment plant is 25,000 gpd, and the proposed high flow limit is 75,000 gpd. The difference between 75,000 gpd and 25,000 gpd represents 0.00003% of the average flow of the Columbia River at Trojan. Utilizing an average of 35 ppm of total suspended solids and 2 ppm BOD already present in the Columbia River at Trojan, the increased loading proposed would increase the average concentration of suspended solids and BOD in the Columbia by 0.00004% and 0.0007% respectively. Such variations are beyond detection levels and are overshadowed by the normal fluctuations in the river. Since past impacts have not been noted, impacts from the proposed increased loadings are not anticipated.

Stream velocity for dispersal varies with river flow and tidal conditions. River velocity averages approximately 1.8 fps and ranges from 1.0 to 1.5 fps during yearly low flows to 2.0 to 3.0 fps during high flows in the spring (when the sewage treatment plant will normally receive its heaviest planned use). Tidal reversal occurs when river flow drops below approximately 190,000 cfs, this occurs roughly during the period of mid-August to mid-October (which is the planned non-peak period of operation for the sewage treatment plant). The current near the Oregon shore, where the effluent is discharged, continues downstream for a time after the flow in the main channel has reversed (see Figures 3 to 11). The above velocities are averages and may be less near shore as opposed to mid-channel and greater during ebb tide.

The increase in loadings from the proposed STP will be so small as to be unmeasurable. Since past monitoring has not shown impacts on Columbia River water quality from discharges from the existing plant, none should be expected from the small increases from the proposed plant.

E. Mixing Zone Configuration

The effluent from the STP is discharged at RM 72.7 through an 8-inch concrete pipe at -3.0 feet MSL as shown in figures 1 and 2 (also see Attachment D). The mixing zone specified in the current NPDES permit is the area within a 50-foot radius of the point of discharge. The adjacent upland area has an elevation of approximately 20 feet MSL. The vertical distance from the discharge to ground level is approximately 23 feet. The water level varies due to seasonal river flows (ie, spring runoff) and tidal fluctuations. To determine the volume of the mixing zone, a depth of 15 feet was chosen to represent minimum average conditions. Figure 13 illustrates the approximate configuration of the mixing zone. To simulate approximate worse case conditions an active mixing zone with 45° angle of dispersion was used. Given the above configuration of the mixing zone a 2-fps flow in the winter and a 1-fps flow in the summer, the volume of dilution water flowing from the point of discharge to the downstream edge of the mixing zone is 140,250 gallons in 25 seconds in the winter and 50 seconds in the summer. This provides the following dilution ratios:

Proposed Sewage Treatment Plant/Trojan
 March 2, 1988

TABLE 2

Dilution Ratios In STP Mixing Zone

| | <u>Existing STP</u> | <u>Proposed STP</u> |
|-------------------------------|---------------------|---------------------|
| Winter (November through May) | 19,400:1 | 6,470:1 |
| Summer (June Through October) | 9,695:1 | 3,230:1 |

III. Impacts of Proposed Increased Discharge

Considering the dilution ratios given above the following increases of suspended solids and BOD have been calculated for the existing STP and proposed STP in the summer (June through October) and winter (November through May) seasons.

TABLE 3

Concentrations of BOD and Suspended Solids (mg/l)

| <u>Parameter</u> | <u>Season</u> | <u>Background¹</u> | <u>Current STP²</u> | <u>Proposed STP³</u> |
|------------------|---------------|-------------------------------|--------------------------------|---------------------------------|
| Suspended Solids | Winter | 30 | 30,000 | 30,000 |
| BOD | Winter | 2 | 2.0014 | 2.0043 |
| Suspended Solids | Summer | 10 | 10.0010 | 10.0031 |
| BOD | Summer | 2 | 2.0019 | 2.0056 |

Basis:

1. Columbia River Historically Accepted BOD and SS Data
2. 25,000 gpd @ 30/30 (Winter) and 20/20 (Summer) BOD and SS
3. 75,000 gpd @ 30/30 (Winter) and 20/20 (Summer) BOD and SS

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Although not specified or limited in the NPDES permit phosphorus discharges are of interest in certain water sheds in Oregon. Since there are no historical data regarding phosphorus discharges from the existing STP, a value was chosen from facilities treating sewage similar to the existing Trojan STP (13 mg/l from the Hillsboro West and Hillsboro East facilities). A background level of 0.08 mg/l from the Columbia River was used. This is an average value calculated from monthly concentrations over a 3 1/2 year period as given in the Trojan Final Environmental Impact Statement (Docket No. 50-344). Using the dilution ratios given above the following increases in concentrations were calculated:

Table 4

Concentrations of Phosphorus (mg/l)

| Season | Background | Existing STP | Proposed STP |
|----------------------|------------|--------------|--------------|
| Winter (Nov-May) | 0.08 | 0.0807 | 0.0820 |
| Summer (June-Oct) | 0.08 | 0.0813 | 0.0840 |

The increases indicated for the parameters in Tables 3 and 4 are unmeasurable. Since these values are calculated to occur at the edge of the mixing zone they would be further diluted further downstream. Considering the insignificant increase in the concentrations of parameters calculated above and the available assimilative capacity of the Columbia River as described in above, no impact on Columbia River water quality can be expected from the proposed project.

IV. Flow Equalization Alternative

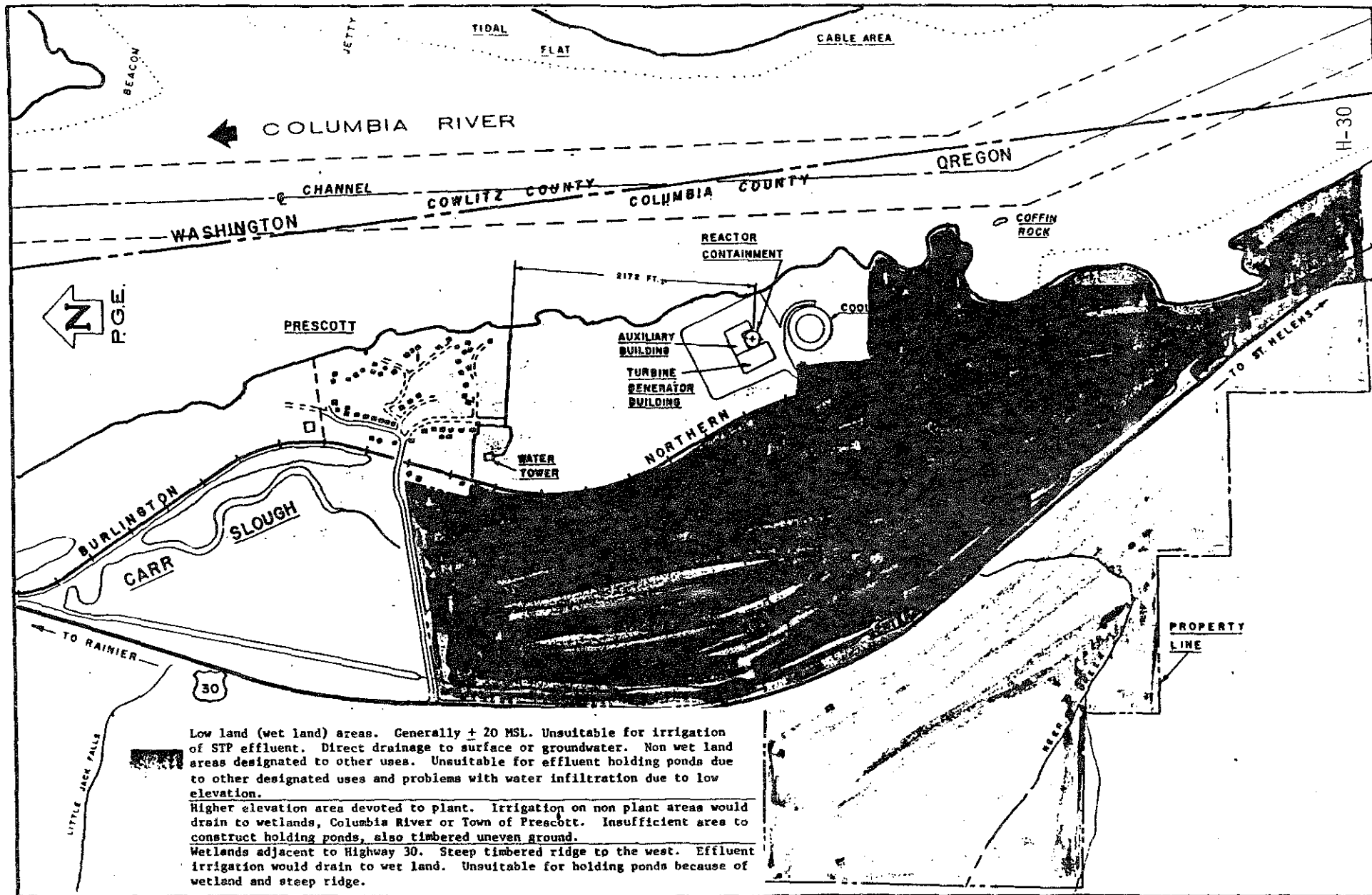
Influent or effluent storage basins would not be practical in equalizing flow rates to the Columbia to approximately the current levels as these flows increase dramatically on a seasonal rather than daily basis. The peak influent flow periods to the STP would be from April until the end of an extended outage which may be as late as July. A 60,000 gpd flow would be a reasonable average for this period (122 days). The difference between the above 60,000 gpd flow and the existing 25,000 gpd permitted flow means that a pond seven feet deep and 325 feet in diameter would have to be constructed to store the 4.3 million gallons of effluent. An even larger pond would be required should the outage extend beyond the end of July (a circumstance which has occurred several times in the past). Space to

Proposed Sewage Treatment Plant/Trojan
March 2, 1988

construct such a pond is limited by several physical and cultural factors (see Figure 14). Much of the land within the Trojan site boundaries are wetlands and therefore unavailable. Much of the rest of the site is taken up by buildings, work and recreation areas, and the fish rearing facility. Most of the land within the plant boundaries, with the exception of the ridge on which the plant is built is 20 MSL or less

Excavation of a pond of the depth required would be hampered by ground water infiltration, therefore a pond liner would be required. There is no area on site which is considered suitable to construct such a pond. To illustrate potential expenses involved were an acceptable site available, Tables 5, 6, and 7 present the calculated cost of construction and operation.

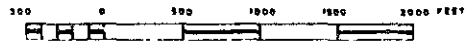
The stored effluent would eventually have to be discharged. This logically would occur after the outage where influent to the STP decreases. The effluent from the STP and storage pond would have to be discharged at the same time at a rate which would not exceed the currently permitted rate of 25,000 gpd to ensure compliance with current NPDES permit limitations. Depending on the amount of effluent stored and the flow from the STP, it may not be possible to completely discharge it prior to the next annual refueling outage.



Low land (wet land) areas. Generally + 20 MSL. Unsuitable for irrigation of STP effluent. Direct drainage to surface or groundwater. Non wet land areas designated to other uses. Unsuitable for effluent holding ponds due to other designated uses and problems with water infiltration due to low elevation.

Higher elevation area devoted to plant. Irrigation on non plant areas would drain to wetlands, Columbia River or Town of Prescott. Insufficient area to construct holding ponds, also timbered uneven ground.

Wetlands adjacent to Highway 30. Steep timbered ridge to the west. Effluent irrigation would drain to wet land. Unsuitable for holding ponds because of wetland and steep ridge.



Amendment 1
(07/24/72)

TROJAN PLANT LOCATION
Figure 14

| Age tion ed P | Winter Storage Summer Irrigation Over 25,000 gpd + Alternative 1 | Winter Storage Summer Irrigation Over 25,000 gpd + Alternative 2 |
|------------------------|---|---|
|------------------------|---|---|

| | | |
|--|-------------|-------------|
| | \$1,893,650 | \$2,285,450 |
|--|-------------|-------------|

| | | |
|--|---------|---------|
| | 157,855 | 219,255 |
|--|---------|---------|

| | | |
|--|-----------|-----------|
| | 2,183,900 | 3,091,400 |
|--|-----------|-----------|

| | | |
|--|-------------|-------------|
| | \$4,077,550 | \$5,376,850 |
|--|-------------|-------------|

| | | |
|--|---|---|
| | 2 | 1 |
|--|---|---|

| | | |
|--|---|---|
| | 3 | 1 |
|--|---|---|

| | | |
|--|---|---|
| | 2 | 1 |
|--|---|---|

Proposed Sewage Treatment Plant/Trojan
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Table 5

Calculated Cost of Sewage Effluent Holding Pond - Construction

| <u>Item</u> | <u>Cost</u> |
|---|----------------|
| Excavation (22,000 cu yd) at \$4.00/yd | \$88,000 |
| Piping (approximately 2,000 lin. ft) at \$10.40/lin ft | 21,000 |
| Aeration Blowers. Piping with Controls | 50,000 |
| Electrical Service Installation | 20,000 |
| Pumps | 5,000 |
| Engineering | 40,000 |
| Pond Liner (90,000 sq ft) at \$4.00/sq ft | 360,000 |
| Subtotal | \$584,000 |
| Contingency at 25% | <u>146,000</u> |
| Grand Total | \$730,000 |

TABLE 6

Annual Operation and Maintenance Costs

Holding Pond

| <u>Item</u> | <u>Cost</u> |
|--|---------------|
| Electrical Power (80,000 kwh at \$0.045 per kwh) | \$3,600 |
| Operations (Personnel, etc.) | <u>20,000</u> |
| TOTAL | \$23,600 |

TABLE 7

Summary of Holding Pond Costs

| <u>Capital Cost (\$)</u> | <u>Annual O&M (\$)</u> | <u>Present Worth O&M (\$)</u> | <u>Total Present Worth (\$)</u> |
|--------------------------|----------------------------|-----------------------------------|---------------------------------|
| 730,000 | 23,600 | 280,000 | 1,010,000 |

*27 years @ 7%/year

V. Effluent Irrigation Alternative

Since storage of effluent and subsequent slow discharge to the river is not a viable alternative, effluent irrigation might be considered. Since the effluent over 25,000 gpd would be produced in the non-irrigation time of the year (ie spring and early summer). It would have to be stored until the dryer season. As discussed above there is not a suitable area on site to construct such a holding pond. There are no viable irrigation disposal areas on the plant site due to the direct drainage to wet lands and land dedicated to other purposes. Irrigation water will either flow to the Recreation Lake, to wetlands and then to the Columbia River or penetrate the soil to the shallow ground water below. The assimilative capacity of these small bodies of water is far less than the Columbia River and resultant water quality degradation could occur. Irrigation on the smaller amounts of higher ground which might be available would drain to wetlands, the Columbia River, or the town of Prescott.

In order to use irrigation to dispose of the STP effluent, property would have to be purchased away from the site and the effluent transported. If this were done by pipeline, the effluent would have to be pumped at least two miles with a vertical rise of about 800 feet. Pump stations with holding tanks and pressure main would be required in the very steep area above the plant. The expense would be prohibitive considering lack of impacts on Columbia River water quality from the relatively very small increase in loading from the proposed treatment facilities. Tables 8, 9, and 10 illustrate the calculated costs of effluent irrigation.

Proposed Sewage Treatment Plant/Trojan
March 2, 1988

From the above, it is apparent there are no areas available to construct an effluent holding pond or to dispose of the effluent by irrigation. If there were, the costs of construction and operation and maintenance are extremely high (especially when considering the increase in loadings discharged will be unmeasurable in the river). The only viable alternative is direct discharge to the river.

Table 9

Calculated Costs for Pumping and Irrigating
Sewage Effluent - Construction

| <u>Item</u> | <u>Cost</u> |
|--|----------------|
| Two Miles 4-Inch Asbestos Cement Pipe (at \$5.40/lin ft) | .\$57,000 |
| Excavation and Backfill (at \$5.00/lin ft) | 53,000 |
| Jacking (Passage Under Railroad and Highway) | 25,000 |
| Pump Stations (Four at \$40,000 each) | 160,000 |
| Electrical Service Installation | 100,000 |
| Property (20 Acres at \$5,000/Acre) | 100,000 |
| Distribution System (Pumps and Sprinkler System) | 30,000 |
| Engineering | 40,000 |
| SUBTOTAL | \$565,000 |
| Contingency (at 25%) | <u>141,250</u> |
| GRAND TOTAL | \$706,250 |

TABLE 9

Annual Operation and Maintenance Costs
 Effluent Irrigation system

| <u>Item</u> | <u>Cost</u> |
|---|---------------|
| Electrical Power (219,000 kwh at \$0.045 kwh) | \$9,855 |
| Operations (Personnel, etc) | <u>50,000</u> |
| TOTAL | \$59,855 |

TABLE 10

Summary of Effluent Irrigation Costs

| <u>Capital Costs (\$)</u> | <u>Annual O&M (\$)</u> | <u>Presentation Worth O&M (\$)*</u> | <u>Total Present Worth (\$)</u> |
|---------------------------|----------------------------|---|---------------------------------|
| 706,250 | 59,855 | 720,000 | 1,426,250 |

*27 years @ 7% /year

VI. Advanced Treatment Alternative

Tertiary process facilities could be added to treat the secondary effluent to comply with the existing NPDES permit discharge limits during higher flow periods, but would increase the estimated treatment costs by at least 50%, and probably by 100%, over the estimated costs for secondary treatment alone. The extra cost for tertiary treatment would be about \$0.7 million to \$2.0 million over a twenty year life cycle period (based on present dollar values) for 100,000 gal/day flow. Project costs for flows of 75,000 to 86,000 gpd would be about 10% to 15% less. Tertiary treatment would substantially increase the complexity of the wastewater plant and the operating attention needed.

These discharge quantities are very low pollutant loadings relative to the assimilative capacity of the Columbia River. The increased cost and complexity of the treatment plant to implement tertiary treatment do not appear justified in view of the small improvement in environmental quality which would be gained.

VII. Other Concerns

There are no designed pathways for radioactivity to be discharged to the Columbia River via the sewage treatment system. A weekly 24-hour composite sample is analyzed for tritium and gross gamma. The sludge return is sampled if there is a primary to secondary system leak in the plant at the steam generator (with activity of at least 1×10^{-5} mCu/l. This sampling is not required but is carried out for in-house use.

Should PGE's request for increased loadings be denied, alternatives would be available. Since the existing plants designed capacity would continue to be exceeded during outage periods, violations of the NPDES permit would result and that is not acceptable or an alternative. The other alternatives include tertiary process facilities as described in the attached letter from From K. David Moss of URS to A. N. Roller of PGE, dated January 20, 1988. As described there, costs to provide a system with increased flows, but loadings equal to existing limitations would range from about \$0.7 million to \$2.0 million over a twenty year life cycle period. However, no detectable improvement in environmental quality would be gained.

VIII. Conclusions

The proposed STP would not increase loadings to the Columbia River which could be detected, therefore additions of tertiary treatment options to the proposed STP are not justified. Storage of effluent over 25,000 gpd is not a viable alternative since there is no location on site to build a holding pond. If there were, costs would be prohibitive. Effluent irrigation is not a viable alternative due to the lack of a site to construct a holding pond and expenses of pumping the effluent to an acceptable irrigation site. Table 11 summarizes the costs of the proposed STP and the alternatives.

The preceding assessment indicates the only viable alternative is the STP as proposed.

SCK:slc

es 1455

ATTACHMENT "A"



URS CORPORATION

500 NORTHEAST MULTNOMAH STREET
PORTLAND, OREGON 97232
TEL: (503) 238-7050

U.S. OFFICES

ALBANY, N.Y.
ANN ARBOR, MICH.
ATLANTA, GA.
BOSTON, MASS.
CHICAGO, ILL.
CINCINNATI, OHIO
COLUMBUS, OHIO
DENVER, COLO.
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HONG KONG
LONDON, ENGLAND
MADRID, SPAIN
MEXICO CITY, MEXICO
NEW DELHI, INDIA
RIO DE JANEIRO, BRAZIL
SINGAPORE
TOKYO, JAPAN
WASHINGTON, D.C.
HEADQUARTERS

January 20, 1988

78571.11
UP-25R

Mr. A. N. Roller
Portland General Electric
121 S.W. Salmon Street
Portland, OR 97204

Attn: W. L. Peregoy, P.E.

Subject: ESTIMATED FUTURE SEWAGE FLOWS (REVISED) and
SUMMARY OF TERTIARY TREATMENT REQUIREMENTS
Trojan Nuclear Power Plant
Wastewater Treatment Facility Design (P.O.# NQ-02594)

Dear Bill:

Attached are two documents for your review, use and files. [These documents have been updated from those submitted with letter UP-25 on January 19, 1988.]

The first is a revised version of Table 3.2 from the "Wastewater Treatment Predesign Study" which pertains to the Estimated Future Sewage Flows for the proposed wastewater treatment facility (WTF). Based upon this data, we recommend that a monthly average flow of 75,000 gallons per day be used for NPDES permit loading calculations. This flow would then result in the following discharge loadings for BOD-5 and TSS:

| <u>DRY WEATHER (at 20 mg/L)</u> | <u>WET WEATHER (at 30 mg/L)</u> |
|---------------------------------|---------------------------------|
| Average month - 12.5 lb/day | Average month - 18.8 lb/day |
| Maximum week - 18.8 lb/day | Maximum week - 28.1 lb/day |
| Maximum day - 25.0 lb/day | Maximum day - 37.5 lb/day |

The second item deals with our preparation of a two-page summary of the Tertiary Treatment Facility analysis previously submitted to PGE on December 7, 1987. We have excerpted key portions of that document for your submittal to the Oregon DEQ per their request. If you need additional information, please contact me.

Yours truly,

K. David Moss, P.E.
Project Manager

cc: S. Katkansky, PGE

RECEIVED
MAR 03 1988

Water Quality Division
Dept. of Environmental Quality

January 20, 1988

Revised
Table 3.2

Estimated Future Sewage Flows (gpd)
[Monthly Average]

| <u>Condition</u> | <u>Staff</u> | <u>GPCPD</u> | <u>Sewage</u> | <u>I/I</u> | <u>Total</u> |
|-----------------------------|--------------|--------------|---------------|------------|--------------|
| Non-outage; low estimate | 500 | 25 | 12,500 | 7,500 | 20,000 |
| Non-outage; "average" [dry] | 700 | 25 | 17,500 | 15,000 | 32,500 |
| Non-outage; "average" [wet] | 700 | 25 | 17,500 | 25,000 | 42,500 |
| Non-outage; high estimate | 700 | 30 | 21,000 | 30,000 | 51,000 |
| ----- | | | | | |
| Outage; low estimate | 1,300 | 25 | 32,500 | 7,500 | 40,000 |
| Outage; "average" [dry] | 2,000 | 25 | 50,000 | 15,000 | 65,000 |
| Outage; "average" [wet] | 2,000 | 25 | 50,000 | 25,000 | 75,000 |
| Outage; high estimate | 2,000 | 30 | 60,000 | 30,000 | 90,000 |
| Outage; peak (PF=2) | 2,000 | 60 | 120,000 | 30,000 | 150,000 |

LEGEND: Non-outage: When Trojan plant is operational and is producing electricity
 Outage: When Trojan plant is shut-down for annual maintenance
 [dry]: Dry weather, not necessarily matching the dry weather month for the Columbia River flow (which is June 1 to October 31)
 [wet]: Wet weather (sometimes June can be a wet month)

Based upon the above calculations, and also the flow data in Appendix A, the future average daily Non-outage flow would likely be between 20,000 gpd and 50,000 gpd. The average daily Outage flow would likely be between 40,000 gpd and 90,000 gpd, with an ultimate peak flow of 150,000 gpd.

For NPDES permit loading calculations, it is recommended that a monthly average flow of 75,000 gallons per day be used.

REFERENCE: "Wastewater Treatment Predesign Study," for Portland General Electric Trojan Nuclear Power Plant, by URS Corporation, August 31, 1987, page 3-4.

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

REVISED PUBLIC HEARING

A PROPOSED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
MODIFICATION FOR PORTLAND GENERAL ELECTRIC COMPANY

Notice Issued: March 21, 1988
Comments Due: April 29, 1988
Revised: April 1, 1988

REVISED PUBLIC NOTICE

WHO IS THE
APPLICANT:

Portland General Electric Company
Trojan Sewage Treatment Facility

WQ-Cop

WHAT IS
PROPOSED:

Water quality permit modification for PGE's facility at Trojan.

WHAT ARE THE
HIGHLIGHTS:

Portland General Electric has requested approval to increase the size of its sewage treatment facility at the Trojan nuclear power plant in Columbia County near Rainier, Oregon. This increase is necessary to accommodate the wastewater loads of a larger and growing work force at the plant. The increase in the sewage treatment plant size would increase PGE's permitted discharge to the Columbia River from 25,000 gallons per day to 75,000 gallons per day of treated wastewater with a loading increase from 4.2 to 12.5 pounds per day of biochemical oxygen demand and suspended solids on a monthly average.

WHO IS AFFECTED:

Users of the Columbia River near the facility located at River Mile 72.5.

WHAT IS THE
IMPACT:

After reviewing the current discharges on the Columbia River and the possible impact of increasing the discharge by an additional 8.3 pounds, the Department has concluded the increased loading will have no measurable impact on the Columbia River.

HOW TO COMMENT:

REVISED

DEQ originally scheduled the location of the hearing in Medford, during the EQC meeting. To make the location more convenient to users of the Columbia River, the hearing has been relocated to DEQ's Portland headquarters. A hearing will be held before a hearings officer on:

Friday, April 29, 1988
9:00 a.m.
DEQ Offices
811 SW Sixth Avenue, Room 4
Portland, Oregon



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

11/1/88

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.

-OVER-

PGE - Trojan Sewage Treatment Facility
Public Hearing Notice
Page Two

Written comments should be presented to DEQ by 5:00 pm on April 29, 1988, at the following address:

Department of Environmental Quality
Northwest Region Office
811 S.W. Sixth Avenue
Portland, OR 97204 Telephone: 229-5263

**WHAT IS THE
NEXT STEP:**

After evaluating the public comment, the Department will forward a recommendation to the Environmental Quality Commission at its earliest possible meeting for final action.

WJ349

MEMORANDUM

TO: ENVIRONMENTAL QUALITY COMMISSION

FROM: *[Signature]* KASHBAKER
HEARINGS OFFICER

DATE: 10 MAY 88

RE: HEARINGS OFFICERS REPORT
REQUEST FOR LOAD INCREASE
PORTLAND GENERAL ELECTRIC - TROJAN PLANT

Public notice was given and a public hearing was convened at 9:00 am on Friday, April 29, 1988 in room 4 of the DEQ's Portland offices, 811 SW Sixth Ave., in Portland to receive public comment on the proposed increase in load allocation for Portland General Electric's Trojan Plant.

No one appeared to testify at the hearing, and no written comments were received.



Department of Environmental Quality

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

May 26, 1988

RECEIVED
MAY 27 1988

Portland General Electric Company
Attn: R.J. Hess, Manager, Environmental Sciences
121 S.W. Salmon Street
Portland, OR 97204

NORTHWEST REGION

Final Date for Submission
of Written Comments: **June 9, 1988**

Re: NPDES Permit No. 100144
File No. 70825
Trojan Nuclear Power Plant
Columbia County

Enclosed is the draft modification of your National Pollutant Discharge Elimination System (NPDES) Permit for the Trojan Power Plant. The changes in the permit are as follows:

SCHEDULE A: Outfall 002 (Domestic Waste). Loadings for BOD and TSS are increased to 12.5 monthly average and 25 daily maximum. Dry weather flow is increased to .075 MGD.

SCHEDULE D: Condition 5 has been added which requires a sludge management plan by January 1, 1989.

You are invited to review the enclosed copy and submit any comments you may have in writing prior to the date indicated above.

The permit modification will go to the Environmental Quality Commission for concurrence on June 10, 1989. Provided they concur, it will be issued after that date.

If you have any questions, please contact this office.

Sincerely,

Charles K. Ashbaker, Manager
Industrial Waste Section
Water Quality Division

CKA:dh
Enclosures

cc: Northwest Region, DEQ

Permit Number: 100144
Expiration Date: 11/30/90
File Number: 70825
Page 1 of 7 Pages

MODIFICATION

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

ISSUED TO:

Portland General Electric Company
121 Southwest Salmon Street
Portland, OR 97204

SOURCES COVERED BY THIS PERMIT:

| Type of Waste | Outfall Number | Outfall Location |
|--------------------------|----------------|------------------|
| Cooling Water | 001 | R.M. 72.5 |
| Domestic Waste | 002 | |
| Settling Basin Eff. | 003 | |
| Boiler Blowdown | 004 | |
| Neutralizing Tank Eff. | 005 | |
| Oil/Water Separator Eff. | 006 | |

PLANT TYPE AND LOCATION:

Trojan Nuclear Plant
Prescott, OR

RECEIVING STREAM INFORMATION:

Major Basin: Lower Columbia Basin
Minor Basin: -
Receiving Stream: Columbia River
County: Columbia
Hydro Code: 10--COLU 72.5D

EPA REFERENCE NO: OR-002345-1

Issued in response to Application No. 999019 received March 29, 1988.

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

Fred Hansen, Director

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:

| | Page |
|---|----------|
| Schedule A - Waste Discharge Limitations not to be Exceeded.. | 2,3,4 |
| Schedule B - Minimum Monitoring and Reporting Requirements... | 5 |
| Schedule C - Compliance Conditions and Schedules..... | - |
| Schedule D - Special Conditions..... | 7 |
| General Conditions..... | Attached |

Each other direct and indirect waste 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 Date

Outfall Number 001 (Discharge and Dilution Structure Outfall)

| <u>Parameters</u> | <u>Concentrations</u> | |
|-------------------------|-----------------------------|---------------------------|
| | <u>Monthly Ave.</u> mg/l | <u>Daily Max.</u> mg/l |
| Sodium | 25 | 100 |
| Total Chlorine Residual | | Nondetectable* |
| Sulfate | 240 | 824 |
| Boron | 0.1 | 1.0 |
| Aluminum | 0.5 | 0.8 |

* Level of Detectability is defined as 0.1 mg/l.

Other Parameters

Limitations

| | |
|-------------|---|
| pH | Shall not be outside the range 6.0 - 9.0 |
| Flow | Shall not exceed 64.3 MGD |
| Temperature | Shall not exceed 33.9°C (93°F) and, shall not exceed a monthly average delta T of 5.6°C (10°F) and a daily maximum delta T of 8.9°C (16°F). |
| Heat | Shall not exceed a daily average of 79×10^6 BTU/hour. |

(During Reactor Cooldown Operations when the Columbia River water temperatures adjacent to the plant site are less than or equal to 19°C (66°F), the following temperature and heat discharge limits shall apply):

| | |
|-------------|---|
| Temperature | Shall not exceed a daily maximum delta T of 8.9°C (16°F) |
| Heat | Shall not exceed an instantaneous maximum of 240×10^6 BTU/hour |

(During Reactor Cooldown Operations when the Columbia River water temperatures adjacent to the plant site exceed 19°C (66°F), the following temperature and heat discharge limits shall apply):

| | |
|-------------|---|
| Temperature | Shall not exceed a daily maximum delta T of 4.4°C (8°F) |
| Heat | Shall not exceed an instantaneous maximum of 160×10^6 BTU/hour |

Outfall Number 002 (Domestic Waste)

| | Concentrations | | Loadings | |
|---------------|----------------------|--------------------|--------------------------|------------------------|
| | Monthly Ave. mg/l | Daily Max. mg/l | Monthly Ave. (lb/day) | Daily Max. (lb/day) |
| BOD-5 | 20 | 30 | 12.5 | 25.0 |
| TSS | 20 | 30 | 12.5 | 25.0 |
| FC per 100 ml | 200 | 400 | | |

Other Parameters

Limitations

pH Shall be within the range 6.0 - 9.0
 Monthly average dry weather flow to the treatment facility (June 1 - October 31) 0.075 MGD

Outfall Number 003 (Settling Basin Effluent Prior to Mixing with Other Waste Streams)

| | Monthly Ave. | Loadings | Daily Max. |
|-----|--------------|----------|------------|
| | (lb/day) | | (lb/day) |
| TSS | 15 | | 50 |

Other Parameters

Limitations

Flow* Shall not exceed 0.08 MGD

*If necessary, the neutralizing tank discharge may be diverted to the settling basin for treatment prior to discharge to the river. During those periods the flow limitation for discharge (003) shall be increased not to exceed 0.16 MGD.

Outfall Number 004 (Boiler Blowdown and Metal Cleaning Wastes Prior to Mixing with Other Waste Streams)

Parameters

Limitations

Total Copper Shall not exceed 1.0 lb/day
 Total Iron Shall not exceed 1.0 lb/day

Outfall Number 005 (Neutralizing Tank Prior to Mixing with Other Waste Streams)

| | Monthly Ave. | Loadings | Daily Max. |
|-----|--------------|----------|------------|
| | (lb/day) | | (lb/day) |
| TSS | 15 | | 50 |

Other Parameters

Limitations

Flow Shall not exceed 0.08 MGD

Outfall Number 006 (Oil/Water Separator Effluent, and Startup Broiler Blowdown and Drain Water Prior to Mixing with Other Waste Streams)

| | Monthly Ave. (lb/day) | Loadings Daily Max. (lb/day) |
|----------------|--------------------------|------------------------------------|
| TSS | 15 | 50 |
| Oil and Grease | 8 | 10 |

2. Miscellaneous drainage to Recreation Lake (storm runoff and pump seal water) shall not exceed the following limitations at the point of entry to the receiving pond:

| <u>Parameters</u> | <u>Limitations</u> |
|-------------------|--|
| Oil and grease | Shall not exceed 10 mg/l |
| pH | Shall not be outside the range 6.0 - 9.0 |

3. The permittee shall notify the Department prior to draining the circulating water system to Recreation Lake. This discharge shall only occur during periods of emergency or scheduled maintenance. The drainage water shall not exceed the following limitations at the point of entry to the receiving pond:

| <u>Parameters</u> | <u>Limitations</u> |
|-------------------------|--|
| Total Chlorine Residual | Nondetectable* |
| pH | Shall not be outside the range 6.0 - 9.0 |
| Sodium | Shall not exceed 100 mg/l |
| Sulfate | Shall not exceed 824 mg/l |

* Level of detectability is defined as 0.1 mg/L.

4. No water treatment chemicals containing zinc, chromates or phosphates shall be added to any water or wastewater stream which is discharged to the public waters of the State of Oregon.

5. 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 340-41-205 except in the following defined mixing zone:

(Discharge 001 - Main Plant Outfall) The allowable mixing zone shall consist of that portion of the Columbia River within 300 feet from the diffuser, excluding that portion within 1.0 feet from the surface of the river.

(Discharge 002 - Domestic Waste) The allowable mixing zone shall consist of that portion of the Columbia River within a 50 foot radius from the point of discharge.

(Miscellaneous Drainage and Circulating Water System Drainage to Recreation Lake) The allowable mixing zone shall consist of the receiving pond from the point of effluent discharge to the rock berm which separates it from Recreation Lake.

SCHEDULE B

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

Outfall Number 001

| <u>Item or Parameter</u> | <u>Minimum Frequency</u> | <u>Type of Sample</u> |
|---|--------------------------|-----------------------|
| Flow | Daily | Metered |
| pH ¹ | Continuous | Recorded |
| Temperature ² (Influent and Effluent) | Continuous | Recorded |
| Total Heat Discharged ³ | Continuous | Recorded |
| Total Chlorine Residual ⁴ | Continuous | Recorded |
| Sodium, Sulfate, Boron and Aluminum | Monthly | 24-hr Composite |
| Total Dissolved Solids | Weekly | 24-hr Composite |

1. A summary of each day's pH data shall be submitted. This data shall include the maximum and minimum pH value for that day.
2. A summary of each day's temperature data (in addition to the standard NPDES form) shall be submitted. This data shall include temperature maximums for both influent and effluent streams and the average and instantaneous maximum temperature difference of the two streams.
3. The data required for total heat discharged shall be the daily average heat discharge rate (BTU/hr) for each operating day or operating hours if operated less than 24 hours per day. Heat discharges associated with cooldown operations shall also be clearly marked. False BTU spikes caused by dilution flow spikes shall not be recorded as thermal discharges.
4. Residual chlorine at or above the level of detectability will be reported to the Department monthly.

Outfall Number 002 (Domestic Waste)

| <u>Item or Parameter</u> | <u>Minimum Frequency</u> | <u>Type of Sample</u> |
|--------------------------|--------------------------|-----------------------|
| Flow | Continuous | Metered |
| BOD-5 | Weekly | 24-hr Composite |
| TSS | Weekly | 24-hr Composite |
| pH | Daily | Grab |
| Fecal Coliform | Monthly | Grab |
| Chlorine Residual | Daily | Grab |

Outfall Number 003 (Settling basin effluent prior to mixing with other waste streams)

| <u>Item or Parameter</u> | <u>Minimum Frequency</u> | <u>Type of Sample</u> |
|--------------------------|--------------------------|-----------------------|
| Flow | Daily | Metered |
| TSS | Monthly | 24-hr Composite |

Outfall Number 004 (Boiler blowdown prior to mixing with other waste streams)

| <u>Item or Parameter</u> | <u>Minimum Frequency</u> | <u>Type of Sample</u> |
|--------------------------|--------------------------|-----------------------|
| Flow | Daily | Estimate |
| Total Copper | Monthly | Grab |
| Total Iron | Monthly | Grab |

Outfall Number 005 (Neutralizing tank discharge prior to mixing with other waste streams)

| <u>Item or Parameter</u> | <u>Minimum Frequency</u> | <u>Type of Sample</u> |
|--------------------------|--------------------------|-----------------------|
| Flow | Daily | Estimate |
| TSS | Weekly | Grab |

Outfall Number 006 (Oil/Water Separator Effluent, and Startup Boiler Blowdown and Drain Water prior to mixing with other waste streams)

| <u>Item or Parameter</u> | <u>Minimum Frequency</u> | <u>Type of Sample</u> |
|--------------------------|--------------------------|-----------------------|
| TSS | 2 per month | Grab |
| Oil and Grease | 2 per month | Grab |

Miscellaneous drainage to Recreation Lake (Storm runoff, pump seal water, etc., prior to mixing with the waters of the receiving pond).

| <u>Item or Parameter</u> | <u>Minimum Frequency</u> | <u>Type of Sample</u> |
|--|--------------------------|-----------------------|
| pH | Monthly | Grab |
| Oil and Grease (During periods of drainage from circulating water system) | Monthly | Grab |
| pH | Each Discharge | Grab |
| Total Chlorine Residual | Each Discharge | Grab |
| Sodium | Each Discharge | Grab |
| Sulfate | Each Discharge | Grab |

If continuous recording instrumentation or sample compositers required to monitor parameters limited by this permit become non-functional, (such that the specified minimum sampling frequency cannot be complied with) grab samples shall be taken to verify compliance. A list noting each occurrence shall be submitted to the Department with the monthly monitoring report.

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.

SCHEDULE D

Special Conditions

1. Unless approved otherwise in writing by the Department the permittee shall observe and inspect all waste handling, treatment and disposal facilities and the receiving stream above and below each point of discharge at least daily to insure compliance with the conditions of this permit. A written record of all such observations shall be maintained at the plant and shall be made available to the Department staff for inspection and review upon request.
2. Use of the sodium bisulfite scavenger system for reducing the chlorine residual in the Main Plant Outfall Discharge (001) shall be controlled such that dissolved oxygen concentrations in the Columbia River are not depressed outside the specified mixing zone.
3. Trash and debris collected at the water intake structure shall not be discharged back into the river, but shall be removed to an approved landfill.
4. Chemicals added for cooling tower maintenance shall not contain any of the 129 priority pollutants (as defined in Table III-2 of the Draft Technical Report for Revision of Steam Electric effluent Limitations Guidelines, September 1978).
5. The permittee shall submit by January 1, 1989, a sludge management plan which meets the requirements of OAR 340, Division 50.

P70825.M (h)

Proposed Criteria for Consideration of Increased Loadings from Expansion of Sewage Treatment Plants and Industrial Sources.

Oregon's water quality management policies and programs are based on the recognition that Oregon's water bodies have a finite capacity to assimilate waste. The strategy that has been followed in stream management has forced the development and application of technology that would not have otherwise occurred. As a result, some of the waters of Oregon have assimilative capacity above that which would exist if only minimal water quality standards were being met. This unused assimilative capacity is an exceedingly valuable resource that enhances in-stream values specifically, and environmental quality generally. Permitted use of this assimilative capacity should be based on explicit criteria.

The criteria for consideration of increased loadings will include the following:

1. Environmental effects:

a. negative out-of-stream environmental effects.

Generally, waste treatment and land application of waste is preferred to stream discharges. Nevertheless, there may be instances where the out-of-stream environmental effects of waste treatment or land application will be negative. Examples of such negative impacts include energy requirements of "high tech" treatment facilities and the degradation of ground water from land application of waste.

b. in-stream environmental effects.

(1) total stream effects.

Total stream loadings may vary inversely with the loadings coming from a particular source. For example, the expansion of a regional facility may replace small but less efficient plants -- total stream loadings are reduced even though loadings from the regional facility are increased.

(2) seasonal effects.

Increased loadings in seasons of high stream flow may make it possible to reduce loadings in periods of low flow. For example a new lagoon system may increase winter loads when the assimilative capacity of the stream is great but reduce or eliminate discharges during summer months from existing waste treatment systems.

2. Economic effects:

When assimilative capacity exists in a stream, and when it is judged that increased loadings will have the least damaging environmental effect, the economic effect of increased loading will be considered. Economic effects will be of two general types:

- a. the value of the beneficial use that would be sacrificed or foregone if the increased loading is not permitted.

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 those beneficial uses that promise the greatest return (beneficial use) relative to the assimilative capacity utilized. In-stream uses that will benefit from assimilative capacity as well as potential future beneficial use will be weighted against the economic benefit associated with increased loading.

- b. the cost of treatment technology.

In those situations where land application of wastes is not possible or feasible, (slopes too steep for irrigation, for example) the economic cost of improved treatment technology resulting from growth may become a criterion in evaluating increased loadings. However, before loadings resulting from high economic costs are permitted, consideration will be given as to whether the growth causing the increased waste is occurring in the most appropriate geographic location.

The above criteria are not necessarily mutually exclusive; more than one criterion may apply in a particular situation.

E. N. Castle
11/15/88

dm2277

OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 45 - DEPARTMENT OF ENVIRONMENTAL QUALITY

(6) The Director will review requests for Fundamentally Different Factors variances and shall either deny them or concur with them and submit the concurrence to the United States Environmental Protection Agency for approval, as provided in federal regulations.

Stat. Auth.: ORS Ch. 468
Hist.: DEQ 16-1980, f. & ef. 5-27-80

Other Requirements

340-45-065 (1) Prior to commencing construction on any waste collection, treatment, disposal, or discharge facilities for which a permit is required by rule 340-45-015, detailed plans and specifications must be submitted to and approved in writing by the Department as required by ORS 468.742; and for privately owned sewerage systems, a performance bond must be filed with the Department as required by ORS 454.425.

(2) Monitoring, recording, and reporting procedures used to meet the requirements of a NPDES permit shall conform with the Federal Act and regulations issued pursuant thereto.

Stat. Auth.: ORS Ch. 468
Hist.: DEQ 53(Temp), f. & ef. 6-21-73 thru 10-18-73; DEQ 58, f. 9-21-73, ef. 10-25-73; DEQ 113, f. & ef. 5-10-76; DEQ 126(Temp), f. & ef. 12-30-76 thru 4-28-77; DEQ 133, f. & ef. 5-2-77

[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. A filing fee of \$50 shall accompany any application for issuance, renewal, modification, or transfer of an NPDES Waste Discharge Permit or Water Pollution Control Facilities Permit. This fee is non-refundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed.

(2) Application Processing Fee. An application processing fee varying between \$75 and \$2,000 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 | \$2000 |
| (B) Minor industries | \$600 |
| (C) Major domestic ² | \$1500 |
| (D) Minor domestic | \$600 |
| (E) Agricultural | \$300 |

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

| | |
|-----------------------------------|--------|
| (A) Major industries ¹ | \$1000 |
| (B) Minor industries | \$300 |
| (C) Major domestic ² | \$750 |
| (D) Minor Domestic | \$300 |
| (E) Agricultural | \$150 |

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

| | |
|-----------------------------------|-------|
| (A) Major industries ¹ | \$500 |
| (B) Minor industries | \$200 |
| (C) Major domestic ² | \$500 |
| (D) Minor domestic | \$200 |
| (E) Agricultural | \$100 |

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

| | |
|-----------------------------------|--------|
| (A) Major industries ¹ | \$1000 |
| (B) Minor industries | \$300 |
| (C) Major domestic ² | \$750 |
| (D) Minor domestic | \$300 |
| (E) Agricultural | \$150 |

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

\$75

(3) Annual Compliance Determination Fee Schedule:

OREGON ADMINISTRATIVE RULES

CHAPTER 340, DIVISION 45 - DEPARTMENT OF ENVIRONMENTAL QUALITY

(a) Domestic Waste Sources (Select only one category per permit) (Category, Dry Weather Design Flow, and Initial and Annual Fee):

- (A) Sewage Disposal - 10 MGD or more\$1150
 - (B) Sewage Disposal - At least 5 but less than 10 MGD\$900
 - (C) Sewage Disposal - At least 1 but less than 5 MGD\$500
 - (D) Sewage Disposal - Less than 1 MGD\$300
 - (E) Non-overflow sewage lagoons\$150
 - (F) Subsurface Sewage disposal systems larger than 20,000 gallons per day\$150
 - (G) Subsurface sewage disposal systems larger than 5000 gallons per day but not greater than 20,000 gallons per day\$100
- (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\$1400
- (B) Major sugar beet processing, potato and other vegetable processing, and fruit processing industry\$1400
- (C) Fish Processing Industry:
 - (i) Bottom fish, crab, and/or oyster processing ...\$175
 - (ii) Shrimp processing\$175
 - (iii) Salmon and/or tuna canning\$300
- (D) Electroplating industry (excludes facilities which do anodizing only):
 - (i) Rectifier output capacity of 15,000 Amps or more\$1400
 - (ii) Rectifier output capacity of less than 15,000 Amps, but more than 5000 Amps\$700
- (E) Primary Aluminum Smelting\$1400
- (F) Primary smelting and/or refining of non-ferrous metals utilizing sand chlorination separation facilities \$1400
- (G) Primary smelting and/or refining of ferrous and non-ferrous metals not elsewhere classified above\$700
- (H) Alkalies, chlorine, pesticide, or fertilizer manufacturing with discharge of process waste waters\$1400

- (I) Petroleum refineries with a capacity in excess of 15,000 barrels per day discharging process waste water \$1400
- (J) Cooling water discharges in excess of 20,000 BTU/sec.\$700
- (K) Milk products processing industry which processes in excess of 250,000 pounds of milk per day\$1400
- (L) Major mining operators\$1400
- (M) Small mining operations less than 70,000 cubic yards per year, which:
 - (i) Discharge directly to public waters\$175
 - (ii) Do not discharge to public waters\$125
 - (iii) Use cyanide or other toxic chemicals for extracting precious metals\$700
- (N) All facilities not elsewhere classified with disposal of process waste water\$300
- (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.)\$200
- (P) Dairies and other confined feeding operations\$125
- (Q) All facilities which dispose of waste waters only by evaporation from watertight ponds or basins\$125

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.

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; DEQ 9-1987, f. & ef. 6-3-87

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

TO: Environmental quality commission

Date: March 2, 1989

From Fred Hansen

Subject: Proposed Modification to the Time Schedule in the Proposed Yamhill TMDL Rule

The proposed Yamhill TMDL rule was reviewed at a public work group session in McMinnville on February 23, 1989. During the work group discussion several representatives stated concern with the proposed compliance date. The Cities of McMinnville and Carlton felt the proposed date did not allow reasonable time for reviewing options, developing plans, reviewing facilities plans, and implementing control alternatives. During this discussion it became apparent that the City of McMinnville has spent considerable effort evaluating several solutions for meeting the phosphorus criteria proposed in the rule.

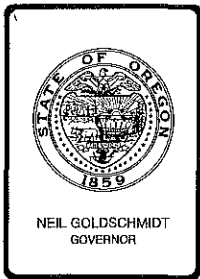
The definition of a compliance date in the rule provides guidance for the development of program plans. Staff believes a reasonable compliance date is a necessary component of the rule. Based on the technical information provided by McMinnville staff recommends that the compliance date be changed to June 30, 1994 prior to holding public hearings on the proposed rule.

As in the Tualatin Basin all the necessary information for defining the compliance dates will not be available until program plans are finished. Additional information may justify an alternative date for one or more affected communities. Therefore, staff recommends that paragraph (c) be amended to include " ... Commission. The Commission may define alternative compliance dates as the program plans are approved. All ...".

SPECIAL POLICIES AND GUIDELINES

340-41-470

- (4) In order to improve water quality within the Yamhill River subbasin to meet the existing water quality standard for pH, the following special rules for total maximum daily loads, waste load allocations, load allocations and program plans are established.
- (a) After completion of wastewater control facilities and program plans approved by the Commission under this rule and no later than June 30, 1994 [1991], no activities shall be allowed and no wastewater shall be discharged to the Yamhill River or its tributaries without the authorization of the Commission that cause the monthly median concentration of total phosphorus to exceed 70 ug/l as measured during the low flow period between approximately May 1 and October 31* of each year.
- * Precise dates for complying with this rule may be conditioned on physical conditions (i.e., flow, temperature) of the receiving water and shall be specified in individual permits or memorandums of understanding issued by the Department. The Department shall consider system design flows, river travel times, and other relevant information when establishing the specific conditions to be inserted in the permits or memorandums of understanding.
- (b) Within 90 days of adoption of these rules, the Cities of McMinnville and Lafayette shall submit a program plan and time schedule to the Department describing how and when they will modify their sewerage facility to comply with this rule.
- (c) Final program plans shall be reviewed and approved by the Commission. The Commission may define alternative compliance dates as program plans are approved. All proposed final program plans shall be subject to public hearing prior to consideration for approval by the Commission.
- (d) The Department shall within 60 days of adoption of these rules distribute initial waste load allocations and load allocations to the point and nonpoint sources in the basin. These allocations shall be considered interim and may be redistributed based upon the conclusions of the approved program plans.



Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: 3/3/89
 Agenda Item: L
 Division: Water Quality
 Section: Planning & Monitoring

SUBJECT:

Establishment of instream total phosphorus criteria for the Yamhill, South Yamhill, and North Yamhill Rivers.

PURPOSE:

To provide the basis for establishing the total maximum daily load (TMDL), waste load allocations (WLA), and load allocations (LA) for phosphorus in the Yamhill Basin by defining the assimilative capacity of the Yamhill River for nutrient loads.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)

- Authorize Rulemaking Hearing

| | |
|--------------------------------------|---------------------|
| Proposed Rules (Draft) | Attachment <u>A</u> |
| Rulemaking Statements | Attachment <u>B</u> |
| Fiscal and Economic Impact Statement | Attachment <u>C</u> |
| Draft Public Notice | Attachment <u>D</u> |

- Adopt Rules

| | |
|---------------------------------------|------------------------|
| Proposed Rules (Final Recommendation) | Attachment <u> </u> |
| Rulemaking Statements | Attachment <u> </u> |
| Fiscal and Economic Impact Statement | Attachment <u> </u> |
| Public Notice | Attachment <u> </u> |

- Issue Contested Case Decision/Order

| | |
|----------------|------------------------|
| Proposed Order | Attachment <u> </u> |
|----------------|------------------------|

- Other: (specify)

DESCRIPTION OF REQUESTED ACTION:

The proposed rule would:

1. Identify the assimilative capacity of the Yamhill River for nutrient loads.
2. Establish instream criteria for total phosphorus. These criteria will form the basis for allocating phosphorus loads in the Yamhill basin.
3. Define the time frame for the Department to publish interim allocations derived from the criteria established in the rule. Interim allocations will be used to develop and review program plans.
4. Define the time frame for point sources which discharge during the summer low flow in the Yamhill Basin to develop and submit to the Department program plans which describe strategies and options for achieving specified phosphorus load limits.

AUTHORITY/NEED FOR ACTION:

| | |
|---|---------------------|
| <input checked="" type="checkbox"/> Required by Statute: <u>ORS 468.735</u> | Attachment <u>B</u> |
| Enactment Date: _____ | |
| <input type="checkbox"/> Statutory Authority: _____ | Attachment _____ |
| <input type="checkbox"/> Amendment of Existing Rule: _____ | Attachment _____ |
| <input type="checkbox"/> Implement Delegated Federal Program: _____ | Attachment _____ |

Other:

Implement Public Law 92-500 as amended, specifically Section 303 Attachment B

Federal District Court Consent Decree Civil No 86-1578-B Attachment E

Time Constraints:

The Department is required to establish TMDLs on water quality limited streams at the rate of 20% annually, but in no event less than two annually. Allocations must be established on the Yamhill River to comply with the requirements stated in the consent decree. Oregon's failure to establish allocations will require the Environmental Protection Agency to promulgate action within 90 days after the deadline.

Meeting Date: March 3, 1989
Agenda Item:
Page 3

DEVELOPMENTAL BACKGROUND:

- Advisory Committee Report/Recommendation Attachment
- Hearing Officer's Report/Recommendations Attachment
- Response to Testimony/Comments Attachment
- Prior EQC Agenda Items:
 - Agenda Item O, March 13, 1987, EQC Meeting (not appended)
 - Informational Report: Proposed Approach for Establishing Total Maximum Daily Loads as a Management Tool on Water Quality Limited Segments.
- Other Related Reports/Rules/Statutes:
 - Department's Report (problem assessment) Attachment F
- Supplemental Background Information Attachment

The Federal Clean Water Act under Section 303 requires the establishment of total maximum daily loads for streams that are not achieving water quality standards even after the application of technology based effluents limitations. For municipal treatment plants technology based effluent limitations are defined as standard secondary treatment. The establishment of a total maximum daily load requires a technical evaluation of a receiving water's assimilative capacity. This capacity is then distributed among the various point source discharges as waste load allocations and nonpoint source loads, and background as load allocations. Once the loads are established it is possible then to identify and review options for protecting the receiving waters beneficial uses.

On August 24, 1987 the Department issued a public notice proposing a flow based TMDL for the Yamhill River. Following the public notice period the Department summarized and responded to the comments received. In May of 1988 the Department began intensive sampling to define pollution sources and water quality in the Yamhill Basins. Results of the sampling were used to refine the proposed TMDL, and to propose wasteload and load allocation. The proposed allocations are discussed in Attachment F. Several public meetings and work sessions were held in the Yamhill Basin during the development and allocation of the phosphorus TMDL.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The proposed rule will:

Establish criteria which will be used to define WLAs for the communities of Carlton, McMinnville and Lafayette.

Meeting Date: March 3, 1989
Agenda Item:
Page 4

The proposed WLA for Carlton provides design criteria to assure that effluent from the new wastewater treatment plant will not violate water quality standards.

Achieving the proposed WLA for McMinnville would require reducing existing loads by as much as 90% during summer low flow. Several options exist for achieving the WLA and need to be assessed relative to cost and time frame for implementation.

The WLA for Lafayette will require reductions in phosphorus load during summer low flow conditions. The level of reduction may depend on options selected by upstream dischargers.

The City of Yamhill requested that the Department hold in reserve an allocation for potential discharge by the City in the future. The proposed allocations provide the requested reserve. The Department proposes to hold reserve for future growth and development but not specifically for the City of Yamhill.

Require program plans describing strategies, available options, time frames, and costs of achieving specific WLAs to be submitted to the Department by the communities of McMinnville and Lafayette. Evaluation of options and selection of control strategies will follow the Departments review of the program plans. Review of the program plans may result in modifications to the WLAs.

Establish the LA at existing loads with a reserve dedicated the Department for future growth and development. An additional reserve has been allocated to the North Fork in response to the request by the City of Yamhill. No immediate impacts are expected from establishing LAs. Future growth, development, and discharges may require limitations to stay within the allocated load and reserves.

PROGRAM CONSIDERATIONS:

New tasks established by the proposed rule have been programmed to be handled by existing staff. The added workload is not as significant as that caused by the TMDL on the Tualatin River but will require shifting of priorities and postponing or delays on other required work. New tasks include development of interim TMDLs, program plan review, and continuing proactive involvement with the communities in the Yamhill Basin.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

- 1) Total phosphorus limits of 100 ug/l.

This limits were rejected because they failed to provide the necessary assurances of achieving water quality standards when implemented.

- 2) Nitrogen Limitation Criteria

Nitrogen is the most mobile of the major nutrients and is only partially controllable by human activities. Upstream inputs and nonpoint source inputs appear to be phosphorus limited. Nitrogen limitation would require load reductions to levels near the upstream input loads and does not provide the necessary assurance of achieving water quality standards when implemented.

- 3) Total Phosphorus Criteria of 50 ug/l

Provides the greatest assurance of the options reviewed for achieving water quality standards. This criteria is achievable with no point source discharges during summer low flow conditions. Nonpoint source controls on urban streams may be required. A 50 ug/l criteria appears to be below the assimilative capacity of the Yamhill River.

- 4) Total Phosphorus Criteria of 70 ug/l

The Departments analysis finds that water quality standards would be attained at an instream concentration of 70 ug/l. This criteria defines the assimilative capacity of the Yamhill River. The TMDL should be based on the assimilative capacity of the river. Reserves for future growth and development can be established through the load allocations.

- 5) Total Phosphorus Criteria of:

50 ug/l for:
South Yamhill above McMinnville
North Yamhill above Carlton

70 ug/l for:
South Yamhill below McMinnville
North Yamhill below Carlton
Yamhill River

The assimilative capacity of the Yamhill is still defined as 70 ug/l. The additional criteria describes the framework for establishing load allocations. This allocation process

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would require a change in rule to redistribute loads. The advantage is that upstream criteria provide assurance that NPS concentrations, and therefore IAs, will not increase and require further reductions from the point source dischargers in the future. The disadvantage is that the Department has less flexibility to adjust loads following the review of program plans or other future requirements.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission adopt option 4 and allow public hearings to take place.

The Department is required to establish total maximum daily loads for the Yamhill River. The time frame for developing TMDLS is defined in the EPA-NEDC consent decree. The public hearing and public comment period is an integral step in the process for developing TMDLS. Failure to hold public hearings will prevent the Department from achieving the required schedule. Within 90 days of the Department inaction the EPA is required to develop TMDLS.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

- a. The proposed rule is consistent with the approach for establishing TMDLS on water quality limited stream segments identified in the EQC Agenda Item O, March 13, 1987.
- b. The establishment of phosphorus criteria is needed to improve the water quality of the Yamhill River to protect the recognized beneficial uses of Resident Fish and Aquatic Life, Water Contact Recreation, and Aesthetic Quality. Achieving the phosphorus criteria will prevent nuisance aquatic growth of algae. The Yamhill River is water quality limited due to pH violations resulting from nuisance algal growths. The nuisance algal growths are the result of excessive nutrient loadings. The primary source of nutrients in the Yamhill are the municipal sewage treatment plants.
- c. The Federal Clean Water Act, under Section 303, requires that pollution limits termed Total Maximum Daily Loads be established in waters that do not meet standards, in either numerical or narrative form, even after technology based limitations have been applied.
- d. In December 1986, the Northwest Environmental Defense Center file suit in the Federal District court against the Environmental Protection Agency to ensure that total maximum daily loads would be established and implemented for waters in Oregon identified as being water quality limited. On June 3, 1987, Federal Judge James Burns signed a consent decree between NEDC and EPA describing a

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schedule for establishing TMDLS in Oregon. The Yamhill River was one of 11 waterbodies identified in the Consent Decree. In March 1987, the Environmental Quality Commission, (EQC) approved the Department's proposal and schedule for establishing TMDLS on water quality limited streams.

ISSUES FOR COMMISSION TO RESOLVE:

1. Whether to establish instream criteria of 50 ug/l total phosphorus for the North Fork and South Fork Yamhill in addition to the 70 ug/l for the Yamhill River. This process also holds a reserve for future growth and development. Reserves could not be allocated without a rule change.
2. Whether to establish a 70 ug/l criteria throughout the basin and have the Department hold in reserve for future allocations that load which is the difference between present loads in the South and North Yamhill Rivers, the proposed WLA's, and the 70 ug/l criteria.
3. Whether to allocate a waste load for the City of Yamhill even though they do not currently have a summertime discharge.
4. The Commission could elect not to establish a nutrient control policy for the Yamhill River to control nuisance aquatic growth. Failure to establish a nutrient control policy will result in the Environmental Protection Agency establishing a TMDL for the Yamhill River.

INTENDED FOLLOWUP ACTIONS:

File a Hearing Notice with the Secretary of State.

Notify Local Jurisdictions and interested citizens of public hearings and 30 day comment period.

Hold Public Hearing in McMinnville.

Evaluate and respond to public comment.

Incorporate public input into the proposed rule based on Departments evaluation.

Return to Commission meeting no later than July for final rule adoption.

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Approved:

Section:

Division:

Director:

James J. Mulligan
Robert J. Milson
Jul Hansen

Report Prepared By: Robert Baumgartner

Phone: 229-5877

Date Prepared: February 2, 1989

BB:crw
WC4466
February 2, 1989

SPECIAL POLICIES AND GUIDELINES

340-41-470

- (4) In order to improve water quality within the Yamhill River subbasin to meet the existing water quality standard for pH, the following special rules for total maximum daily loads, waste load allocations, load allocations and program plans are established.
- (a) After completion of wastewater control facilities and program plans approved by the Commission under this rule and no later than June 30, 1991, no activities shall be allowed and no wastewater shall be discharged to the Yamhill River or its tributaries without the authorization of the Commission that cause the monthly median concentration of total phosphorus to exceed 70 ug/l as measured during the low flow period between approximately May 1 and October 31* of each year.
- * Precise dates for complying with this rule may be conditioned on physical conditions (i.e., flow, temperature) of the receiving water and shall be specified in individual permits or memorandums of understanding issued by the Department. The Department shall consider system design flows, river travel times, and other relevant information when establishing the specific conditions to be inserted in the permits or memorandums of understanding.
- (b) Within 90 days of adoption of these rules, the Cities of McMinnville and Lafayette shall submit a program plan and time schedule to the Department describing how and when they will modify their sewerage facility to comply with this rule.
- (c) Final program plans shall be reviewed and approved by the Commission. All proposed final program plans shall be subject to public hearing prior to consideration for approval by the Commission.
- (d) The Department shall within 60 days of adoption of these rules distribute initial waste load allocations and load allocations to the point and nonpoint sources in the basin. These allocations shall be considered interim and may be redistributed based upon the conclusions of the approved program plans.

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 468.735 provides that the Commission by rule may establish standards of quality and purity for waters of the state in accordance with the public policy set forth in ORS 468.710. ORS 183.545 requires a review every three years of state agency Administrative Rules to minimize the economic effect these rules may have on businesses. ORS 183.550 requires, among other factors, that public comments be considered in the review and evaluation of these rules. The Clean Water Act (Public Law 92-500, as amended) requires the states to hold public hearings, at least once every three years, to review applicable water quality standards. Section 303 of the Act further requires that Total Maximum Daily Loads be established for water quality limited stream segments.

(2) Need for the Rule

The Environmental Quality Commission, at its meeting on March 13, 1987, approved the process identified by the Department for establishing Total Maximum Daily Loads (TMDLs), including the proposed schedule for completing Phase I of the process for ten stream segments and one lake. To start the process, the Commission concurred with the Department's intent to place the Tualatin River TMDLs on 30-day notice for public review and comment, thus initiating the entire TMDL/WLA (Waste Load Allocation) process for the Yamhill River.

(3) Principal Documents Relied Upon in this Rulemaking

Clean Water Act as amended in 1977.

Quality Criteria for Water, 1986. EPA.

Code of Federal Regulations, 1987 (40 CFR) Part 130 - Water Quality Planning and Management.

State/EPA Agreement, July 1987. Program Document for FY 1988.

FISCAL AND ECONOMIC IMPACT STATEMENT

Overall Impact

Adoption and implementation of the proposed amendments to water quality standards in the Yamhill Basin will result in increased costs for wastewater treatment and control. These increased costs will be limited to communities which treat municipal wastes and discharge effluent to basin streams. The proposed rules do not allocate loads, below existing conditions, to nonpoint waste sources and they do not allocate waste loads to industries. Consequently, neither industries nor nonpoint waste sources (primarily forest harvesting and agricultural operations) will experience fiscal impacts. Communities with municipal treatment facilities will receive specified waste load allocations: to the extent that these allocations require substantial and expensive improvements to treatment capability, there will be significant fiscal impacts.

The actual fiscal impacts to communities cannot be described at this time because cost information is not available. The rules will, if adopted, establish compliance dates for municipalities to submit implementation plans and schedules. When this information is available, the Department can assign monetary values to the impacts.

Although cost information is not available, it is possible to ascertain who may incur fiscal impacts, how they may be impacted, and where the impacts may occur. Local governments may be directly impacted. If capital investment is required, they will have to secure cash from bond sales or from loans. Operating expenses may increase to cover operation and maintenance of new facilities. Sewerage system users may be indirectly impacted. Local governments may have to increase user charges to pay off the bonds and/or loans - system users would have to pay the increased charges. These users include homeowners, small business, and large business. If business operating expenses increase, the public may be indirectly impacted through increased product prices. Property owners could also be indirectly impacted through property tax increases if operating expenses increase for public institutions such as schools. Table 1 presents a summary of possible fiscal and economic impacts which could result from waste load allocations to Yamhill Basin streams. Once cost information is available, these possible impacts will be evaluated.

FISCAL AND ECONOMIC IMPACT STATEMENT

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TABLE 1

SUMMARY OF POSSIBLE FISCAL IMPACTS--YAMHILL BASIN
 WHO IS IMPACTED? HOW ARE THEY IMPACTED? WHERE ARE THEY IMPACTED?

| | | |
|------------------|---------------------------------------|----------------------|
| Local Government | Bond sale or loan-Direct | Cash Outlays-1 time |
| | Operating Expenses-Direct | Cash Outlays-Ongoing |
| General Public | Rate Increases-Indirect | Cash Outlays-Ongoing |
| | Price Increases-Indirect | Cash Outlays-Ongoing |
| | Tax Increases-Indirect | Cash Outlays-Annual |
| Small Business | Rate Increases-Indirect | Cash Outlays-Ongoing |
| | Increased Operating Expenses-Indirect | Cash Outlays-Ongoing |
| | Tax Increases-Indirect | Cash Outlays-Annual |
| Large Businesses | Rate Increases-Indirect | Cash Outlays-Ongoing |
| | Increased Operating Expenses-Indirect | Cash Outlays-Ongoing |
| | Tax Increases-Indirect | Cash Outlays-Annual |

Probable Community Impacts

Probable fiscal impacts are presented below for five communities which may receive waste load allocations.

Gove Orchard. This community treats domestic wastes with a gravel filter and drainfield. The treatment system has failed. The EPA will provide a 100% grant to improve treatment capability necessary to meet treatment requirements and water quality standards. No increases in operating expenses are anticipated. There shouldn't be any fiscal impacts.

Yamhill. The waste load allocation to this community is a requested reserve. Treatment facility upgrade will probably not be necessary. There shouldn't be any fiscal impacts.

Carlton. This community is currently preparing a facility plan to upgrade treatment capability necessary to meet permit conditions and Yamhill Basin treatment requirements, and to eliminate compliance problems. Although the analysis is not complete, the facility plan will probably recommend summer holding and spray irrigation of effluent. If this is the case, the waste load allocation to Carlton will not result in increased treatment beyond what will be necessary to meet permit conditions and Basin treatment requirements. Subject to completion of the required facility plan, Carlton should be receiving a federal construction grant, scheduled for summer 1989. This grant will pay about 50% of capital construction costs. The waste load allocation should not result in significant fiscal impacts.

Lafayette. The implementation of a waste load allocation for Lafayette may require treatment facility upgrade and probably summer holding. This could be expensive. The community would be eligible for low interest loans (3%) from the State Revolving Fund. The waste load allocation will probably result in significant fiscal impacts.

McMinnville. McMinnville is the major source of nutrients to the South Yamhill River. The waste load allocation to this community will require substantial facility improvements. Possible alternatives to meet the allocation include summer holding and/or spray irrigation, and advanced waste treatment. The city is now initiating a study to evaluate treatment options, and capital and operating costs. The waste load allocations will probably result in significant fiscal impacts to the community and ratepayers. McMinnville would be eligible for low interest loans from the State Revolving Fund.

(5) Land Use Consistency

The Department has concluded that the proposal conforms with the statewide planning goals and guidelines.

Goal 6 (Air, Water, and Land Resources Quality):

This proposal is designed to improve and maintain water quality in the Yamhill River and achieve the pH standard by reducing the phosphorus loadings which supports nuisance algal blooms during the summer.

Goal 11 (Public Facilities):

Compliance with these proposed rules, if adopted, would require the Cities of McMinnville and Lafayette to provide program plans describing strategies for achieving phosphorus limits. Compliance with these proposed rules, if adopted, would require these cities to provide addition sewerage facilities.

The proposed rules do not appear to conflict with other goals.

Public comment on any land use involved is welcome and may be submitted in the same manner as indicated for testimony in this notice. It is requested that local, state, and federal agencies review the proposed action and comment on possible conflicts with their program affecting land use and with Statewide Planning goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any appropriate conflicts brought to our attention by local, state and federal authorities.

Bob Baumgartner:crw
229-6978
WC4466
2/3/89

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

PHOSPHORUS CRITERIA for the YAMHILL RIVER BASIN
TMDLs for total Phosphorus in the Yamhill

Date Prepared:
Notice Issued:
Comments Due:

WHO IS AFFECTED: All businesses, residents, industries, and local governments within the Yamhill River drainage basin.

WHAT IS PROPOSED: The Department proposes to add the attached language to the special policies and guidelines contained in Oregon Administrative Rules (OAR) Chapter 340, Division 41:-470(4). The proposed language establishes instream phosphorus criteria for the Yamhill, North Yamhill, and South Yamhill Rivers and defines the time period for when the criteria will apply.

The proposed rule will require the Cities of McMinnville and Lafayette to submit program plans to the Department describing a strategy for reviewing and selecting options for achieving phosphorus discharge requirements

WHAT ARE THE HIGHLIGHTS: The Federal Clean Water Act, under section 303, requires that pollution limits known as total maximum daily loads be established on streams that are not achieving water quality standards in either numerical or narrative form. The Yamhill River routinely exceeds the pH standard during summer low flow. The pH violations result from nuisance algal growth which is supported by excessive nutrient concentrations.

The Department believes that phosphorus is the key nutrient supporting the excess algal growths. The proposed rule establishes the instream phosphorus level necessary to prevent the pH standard from being exceeded. The proposed criteria will form the structure for establishing the total maximum daily load, load allocations and waste load allocations. The waste load allocations will define the allowable levels of phosphorus that may be discharged from specified point sources. The load allocations establish the amount of phosphorus that is derived from background and nonpoint sources.



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.

D - 1

The Department will accept public comment on the proposed additions and amendments to the special policies and guidelines contained in OAR 340-41-470(4). The proposed language for additions and amendments is attached.

HOW TO
COMMENT:

Public hearings to receive comments on the proposed additions and amendments to OAR 340-41-470(4) as follows:

When:

Where:

The Department will accept written comments received by 9:00 P.M. _____, _____, 1989. Comments should be addressed to:

Mr. Robert Baumgartner
Department of Environmental Quality
811 SW 6th Ave.
Portland OR 97204

WC4467

Copy to Sir...
U. S. DISTRICT COURT
DISTRICT OF OREGON
FILED
JUN 3 1987

RECEIVED
Reth S. Ginsberg, Attorney
United States Department of Justice,
Land and Natural Resources Division
Environmental Defense Section
P.O. Box
Washington, D.C. 20026-3986
(202) 33-2689

ROBERT M. CHRIST, CLERK
BY DEPUT.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

NORTHWEST ENVIRONMENTAL DEFENSE
CENTER (NEDC) and JOHN R. CHURCHILL,
Plaintiffs,
v.
LEE THOMAS, in his official
capacity as Administrator of
the Environmental Protection
Agency,
Defendant.

Civil No. 86-1578-BU
CONSENT DECREE

WHEREAS, on December 12, 1986, the Northwest Environ-
mental Defense Center ("NEDC") filed a complaint, as amended on
March 20, 1987 in the above-captioned case against Lee Thomas, in
his official capacity as Administrator of the Environmental
Protection Agency ("EPA");

WHEREAS, NEDC alleges that EPA has violated sections
303 and 505 of the Clean Water Act ("CWA") by failing to perform
certain mandatory duties, and EPA denies all liability under the
CWA, the Administrative Procedure Act ("APA"), or common law;

WHEREAS, by entering into this decree, EPA in no way
agrees with NEDC's allegations that Oregon's failure to make
the requisite submissions under CWA section 303 constitutes a
"constructive submission" that no submissions are necessary, and
that EPA had subsequently issued a constructive approval of the
same,

WHEREAS, it is the intent of EPA to see that the goals
set forth under CWA section 303 are accomplished, including the
designation of water quality limited segments ("WQLS") and the
establishment of total maximum daily loads ("TMDL"), including
both waste load allocations ("WLA") and load allocations ("LA");

1 WHEREAS, the parties agree that in accordance with the
2 statutory intent of the CWA, the primary responsibility for
accomplishing the goals under section 303 lies with the States;

3 WHEREAS, the State of Oregon and EPA will annually
4 incorporate elements of this agreement into the State's com-
prehensive water quality program through the State/EPA ("SEA")
negotiation process;

5 WHEREAS, EPA will not award CWA funds to Oregon for the
6 development of TMDLs, including WLA's and LAs if the elements of
this agreement are not identified in the SEA;

7 WHEREAS, promulgation of the TMDL/WLA/LA constitutes
8 "new information" and EPA understands that it is the intent of
9 the State of Oregon to modify, N.P.D.E.S. permits on the basis of
the respective permit reopener clauses and 40 C.F.R. § 122.62(a)(2)

10 WHEREAS, the parties wish to resolve this action without
11 litigation, and have, therefore, agreed to entry of this Consent
Decree, without the admission or adjudication of any issue of
fact or law.

12 NOW, THEREFORE, it is hereby ordered, adjudged, and
13 decreed as follows:

14 1. The Court has jurisdiction over this matter and the
parties to the decree.

15 2. That the following terms shall have the meanings
16 provided below:

- 17 A. "EPA" means the United States Environmental
18 Protection Agency.
- 19 B. "NEDC" means the Northwest Environmental Defense
Center.
- 20 C. "Loading Capacity" is that which is defined at
21 40 C.F.R. § 130.2(e).
- 22 D. "Water Quality Limited Segments" ("WQLS") is that
which is defined at 40 C.F.R. § 130.2(i).
- 23 E. "Total Maximum Daily Loads" is that which is
24 defined at 40 C.F.R. § 130.2(h).
- 25 F. "State/EPA Agreement" is that which is
26 defined at 40 C.F.R. 122.2.

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G. Waste load allocation ("WLA") is that which is defined at 40 C.F.R. § 130.2(g)

H. Load allocation ("LA") is that which is defined at 40 C.F.R. § 130.2(f).

I. "New Information" is that which is defined at 40 C.F.R. § 122.62(a)(2).

3. That in accordance with the current State/EPA agreement, the State of Oregon has lead responsibility for the designation of Water Quality Limited Segments and the promulgation of Total Maximum Daily Loads pursuant to CWA section 303, 33 U.S.C. § 1313.

4. ~~That~~, in the event the State of Oregon fails to undertake the following regulatory actions according to the schedule set out below, EPA will notice in the federal register proposed agency action in accordance with 33 U.S.C. § 1313(d)(2) no later than ninety days following Oregon's inaction. The regulatory actions and the dates by which they will be completed by the State of Oregon are as follows:

A. submission of the loading capacity as defined at 40 C.F.R. § 130.2(e) for the following Water Quality Limited Segments as set forth below:

| <u>Water Body</u> | <u>Date</u> |
|--------------------|-------------|
| Tualatin River | 5/87 |
| Yamhill River | 8/87 |
| Bear Creek | 11/87 |
| South Umpqua River | 11/87 |
| Cocuille River | 2/88 |
| Pudding River | 2/88 |
| Garrison Lake | 2/88 |
| Klamath River | 4/88 |
| Umatilla River | 4/88 |
| Calapooia River | 6/88 |
| Grande Ronde River | 6/88 |

B. adoption of TMDLs WLA's/LA's on those WQLS which are identified in paragraph A and subsequent listings of WQLS provided by the State of Oregon in water quality reports prepared in accordance with CWA section 305(b), at the rate of 20% annually, but in no event less than 2 annually.

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C. determination by August, 1988 as to whether the remaining water bodies listed in the plaintiffs' second notice letter of intent to sue dated January 6, 1987, and not identified in EPA's approval on February 20, 1987, of Oregon's January 5, 1987 submission to EPA of Water Quality Limited Segments, are water quality limited.

5. That EPA understands that it is the intent of the State of Oregon to initiate modification of the Rock Creek N.P.D.E.S permit on the basis of the permit reopener clause and 40 C.F.R. §. 122.62(a)(2) within 90 days of promulgation of the phosphorus TMDL/WLA/LA for the Tualatin River.

6. That, it is the intent of the State of Oregon and EPA to reevaluate, in accordance with CWA § 305(b), the waters of the State of Oregon under CWA § 303(d).

7. That defendant will pay plaintiff reasonable costs, including attorney's fees, incurred to date.

8. That this consent decree will expire upon completion of the obligations set forth in paragraph 4 as to the waters identified in subsections (a) and (c) of paragraph 4.

IT IS SO ORDERED.

6-3-87

James M. Burns
JAMES M. BURNS
UNITED STATES DISTRICT JUDGE

Plaintiffs and Defendant consent to the entry of this Consent Decree without further notice or hearing.

Respectfully submitted,

NORTHWEST ENVIRONMENTAL DEFENSE CENTER and JOHN R. CHURCHILL
Plaintiffs

LEE THOMAS, ADMINISTRATOR
U.S. Environmental Protection Agency
Defendant

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By: Beth S. Ginsberg
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By: Monica Kirk
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U.S. Environmental Protection
Region X, Office of Regional
Counsel
100 Sixth Avenue
Seattle, WA 98101
(206) 442-1505

Yamhill River
Problem Assessment

Introduction:

The Yamhill Basin, located in Western Oregon, consists of a central plain completely surrounded by hills and mountains. The Yamhill drainage is contained largely within Yamhill County and contains three major subbasins: the South Yamhill, the North Yamhill, and the mainstem Yamhill. Agriculture and forestry are the dominant land uses. The City of McMinnville is the largest urban area within the Yamhill Basin.

The Yamhill River currently exceeds the pH standard during low flow conditions. Chlorophyll a, an algal pigment, often exceeds the 15 ug/l level used to indicate nuisance algal growth. Because of the standards violations, the Yamhill River has been identified as a water quality limited stream segment.

Problem Assessment:

The pH of a stream is strongly influenced by various biological reactions. The dominant effect is the use of carbon dioxide by algae during photosynthesis. Reduced concentrations of carbon dioxide due to photosynthesis raise the stream pH. Photosynthesis also increases the dissolved oxygen concentration in a stream. During periods of pH violations in the Yamhill River, the dissolved oxygen and chlorophyll a concentrations are elevated due to excessive algal growth. The pH violations in the Yamhill river are due to excessive algal growth.

Almost all waterbodies support the growth of algae to some degree. Algae are primary producers supporting the base of the food chain. Typically, algae do not grow to nuisance proportions. Many factors contribute to algal growth. Some, such as sunlight, are natural phenomena and are not controllable. Most elements required for algal growth are present naturally and required in small amounts. Phosphorus and sometimes nitrogen are nutrients which typically determine the amount of algal growth that will occur. Excessive amounts of these nutrients are directly related to human activities. Nutrient control, typically phosphorus, is a commonly accepted strategy for controlling nuisance algal growths.

Phosphorus is usually the limiting nutrient under natural conditions and is the nutrient most controllable by human activities. Although phosphorus is not the only factor that affects algal growth, studies indicate it has a major effect on the abundance and type of algae produced. Nitrogen is more ubiquitous in nature. Certain plants and blue green algae can fix atmospheric nitrogen. Nitrogen supply is less controllable than

phosphorus. Inorganic carbon, the third nutrient required in large supply, is available from the atmosphere and is not controllable.

Pollution Sources:

The major source of nutrients in the Yamhill Basin are the municipal sewage treatment plants (STP). Three municipal STPs discharge in the Yamhill Basin during the summer, which is the season of concern. These plants and their nutrient load at design flows are listed below and compared to average low flow loads in the Yamhill River above McMinnville.

Table 1

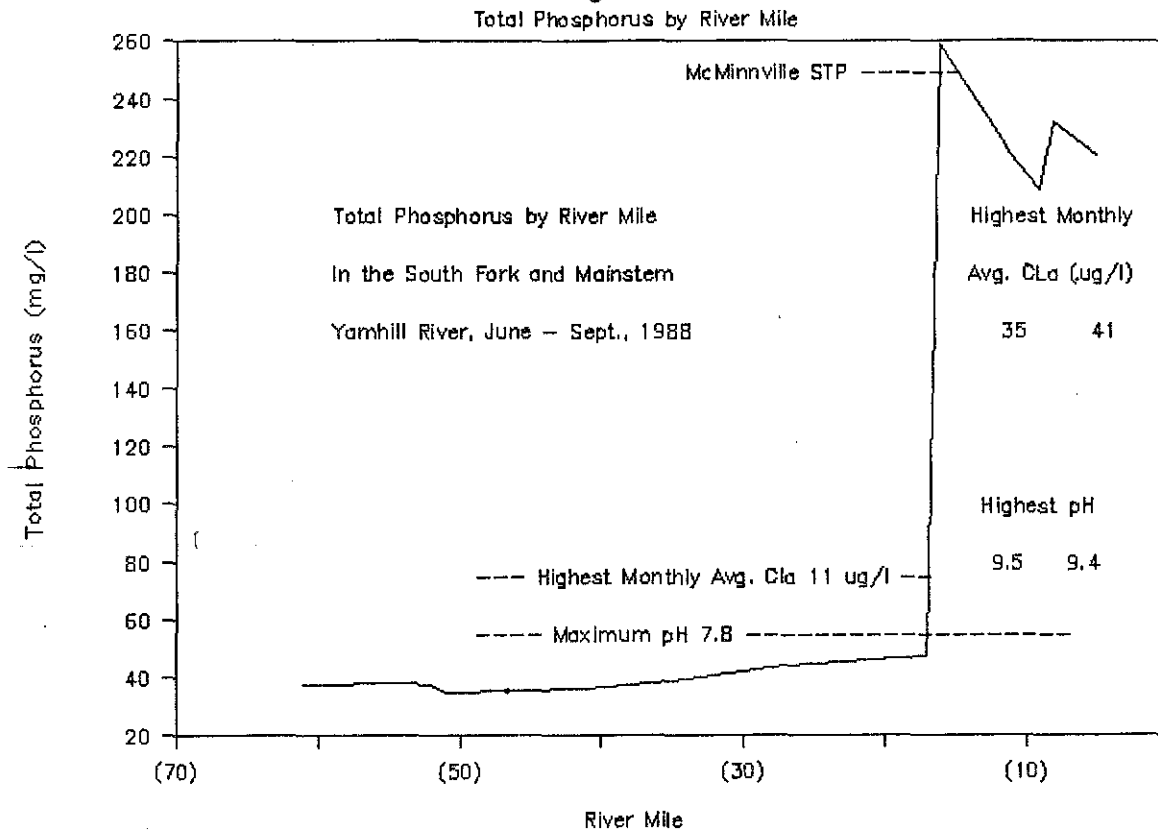
| Point source: | lbs/Day | | Limiting Nutrient |
|-------------------------|------------|----------|-------------------|
| | Phosphorus | Nitrogen | |
| McMinnville STP (4 MGD) | 150 | 363 | Nitrogen |
| Lafayette STP (0.3 MGD) | 14 | 38 | Nitrogen |
| Carlton STP (0.24 MGD) | 9 | 38 | Nitrogen |
| S.Yamhill (35 cfs) | 9 | 75 | Phosphorus |

Not all the phosphorus in stream water is available for algal growth. Typically from 20% to 60% of the total phosphorus is available. Ortho phosphorus is considered to represent the readily available supply of phosphorus. In a slow flowing stream like the Yamhill, with longer residence times, a portion of the particulate phosphorus may be available for algal growth. Algal assay data indicate that as much as 60% - 70% of the total phosphorus in the South Yamhill above McMinnville is available for algal uptake. Comparatively, almost all of the phosphorus from municipal effluent is readily available for algal growth. McMinnville's waste discharge would be expected to increase the readily available phosphorus by over 95% during summer low flow conditions.

Nonpoint source pollution also contributes nutrients to the Yamhill River. The Department conducted extensive ambient monitoring during 1988 to quantify both point and nonpoint source loads. Figure 1 illustrates the average total phosphorus concentration in the South Yamhill and mainstem Yamhill Rivers during 1988. The major peak is the result of phosphorus loads from the McMinnville STP. The subsequent drop is due both to assimilation and dilution from the North Fork Yamhill River. The following smaller peak is derived from the Lafayette STP.

Both algal growth and pH respond to the increased nutrient loads below McMinnville. Upstream from McMinnville the pH is within standard and the chlorophyll a concentrations remain below the reference level. At all sampling stations below McMinnville, the pH frequently exceeds standards and chlorophyll a concentrations exceed the reference level which indicates nuisance conditions.

Figure 1



Time of Concern:

Summer low flow conditions are the period of greatest water quality problems in the Yamhill basin. During the winter, low stream temperatures, limited sunlight, and faster flow combine to reduce algal growth. Nutrient limits are required when physical limitations would not control nuisance algal growth. This period extends from April through October.

Stream temperatures observed in October are sufficient to support nuisance algal growth. Similarly, observed low flow conditions of 23 cfs would result in residence time long enough to support algal growth. Ambient data from 1987 through 1988 show pH violations in the Yamhill River occurring from June through September. The time period for application of the instream criteria is described as the low flow period between May 1 and October 31.

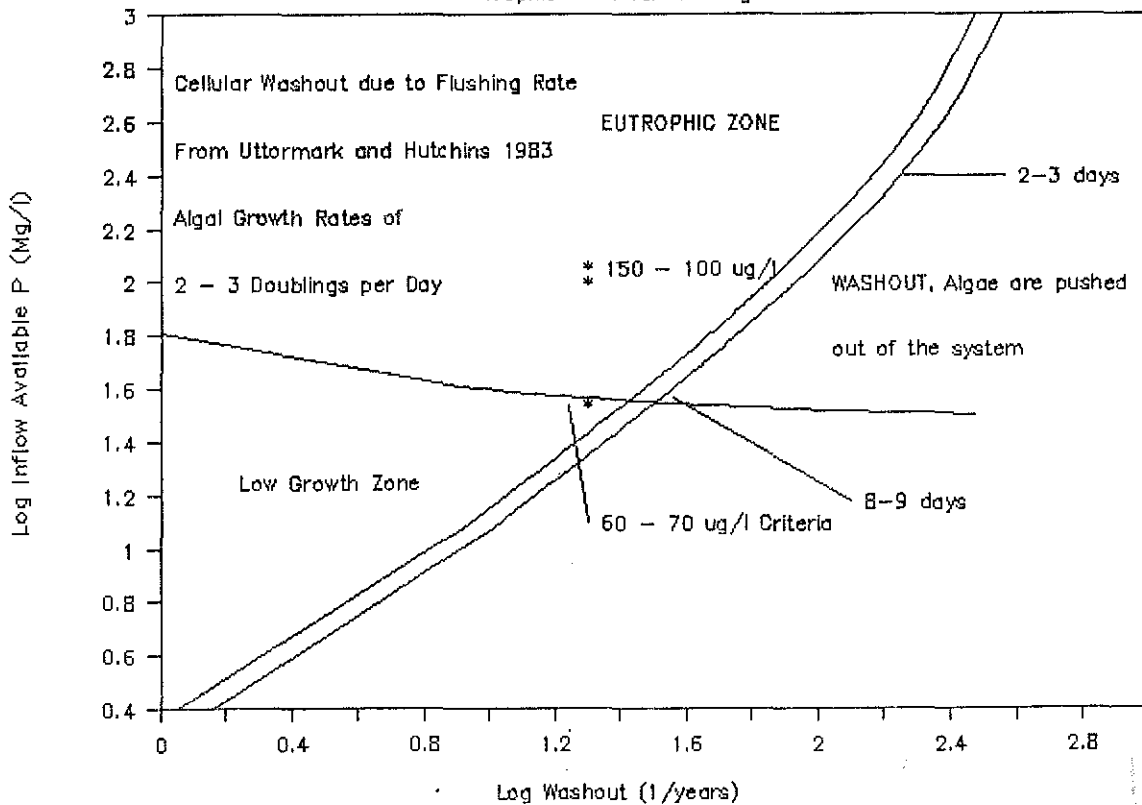
Nutrient Concentration:

An instream total phosphorus concentration of 70 ug/l in the Yamhill River will prevent nuisance algal growths and maintain pH within standards. The 70 ug/l criteria was determined using algal assays, empirical analysis, and modelling analysis. Similar results were obtained for the Tualatin River. Data indicates that similar environmental conditions exists for the Yamhill River. Model results show that residence time is sufficiently long to support algal growth, and that nutrient reduction to 70 ug/l total phosphorus is required to prevent nuisance growth in the Yamhill River.

Uttormark and Hutchins (1983) adapted the widely accepted Vollenweider method for assessing algal growth conditions in slow moving lake-like rivers. This empirical model allows residence time, algal growth, and nutrient concentration to be assessed in terms of trophic state. Figure 2 illustrates this empirical model to conditions observed in the Yamhill River.

In Figure 2, the horizontal axis represents the washout rate. Higher streamflow resulting in a long washout rate is the same as a short residence time. The horizontal slanting lines represent potential washout of algae. To the right of these lines residence times are short. Points to the right of the lines would indicate algae do not have time to grow and multiply to nuisance proportions.

Figure 2
Trophic Level vs. Flushing



Residence time in the Yamhill River below McMinnville was measured by dye test. Under low flow conditions residence time ranges from two to three weeks. Under existing conditions algae can grow to nuisance proportions in approximately three days. If phosphorus was limited an estimated eight to nine days would be required for algae to grow. Washout is not expected to reduce algal growth in the Yamhill River during low flow conditions.

The line slanting across Figure 2 represents Vollenweider's empirical relationship separating high growth conditions from low algal growth conditions, less than 20 ug/l chlorophyll a. However, this relationship is empirical and therefore subjective. Alternative phosphorus criteria can be compared relative to other options. For example, a criteria of 100 to 150 ug/l phosphorus would still be expected to result in high algal growth conditions. Levels near 70 ug/l would be expected to significantly reduce growth and prevent nuisance conditions.

Water quality in the Yamhill basin can be compared to that in other streams in the Willamette Valley. These streams all have low flows in the summer and residence times long enough to support algal growth. Based on eco-region studies conducted in Oregon, the trophic levels and productivity of Willamette valley streams tends to be similar. Water quality in streams that exceed 100 ug/l total phosphorus are overwhelmed by municipal point sources of pollution resulting in excessive algal growth and pH violations.

| <u>Stream Name</u> | <u>Drainage Characteristics</u> | <u>Median Total Phosphorus Concentration</u> | <u>Trophic Level (Median - Max Chlorophyll a)</u> |
|-----------------------------------|---------------------------------|--|---|
| Tualatin at Elsner | Agriculture Urban - STP | 240 | High Algal Growth 30 - 100+ |
| Mary's River | Agriculture Urban | 75 | Moderate Algal Growth 7 - 15 ug/l |
| Calapooia | Agriculture | 60 | Moderate Algal Growth 5 - 15 ug/l |
| Luckiamute | Agriculture | 40 | Low Algal Growth 1 - 5 ug/l |
| So. Yamhill Above McMinnville STP | Agriculture | 40 | Low Algal Growth 1 - 10 ug/l |
| Yamhill River | Agriculture Urban - STP | 210 | High Algal Growth 13 - 50 (1987) |

One algal assay was conducted on water quality samples collected from the Yamhill River. This assay indicated that phosphorus was in excess of algal growth requirements below the McMinnville STP. These results are consistent with the ambient results which indicate that extreme algal growth in the Yamhill River drives nitrogen concentration to low levels. Because of the high phosphorus load and low nitrogen to phosphorus ratio in municipal effluent, this imbalance is expected where municipal discharges overwhelm a stream system.

On the day the algal assay samples were collected, instream phosphorus concentrations were below 150 mg/l and nitrate concentrations were below 300 ug/l. These levels are below typical concentrations of 210 ug/l total phosphorus and 500 ug/l nitrogen. Maximum growth due to nutrient enrichment may not have been achieved in the assays. Samples collected from above McMinnville produced 40% of the algal growth produced by samples collected below McMinnville.

The pH violations in the Yamhill River are the result of photosynthesis. Photosynthesis is the process by which green plants use solar energy and nutrients to grow. It can be described simply as:

Nutrients + Carbon + Water -----> Cell growth + Oxygen

Photosynthesis results in:

- Increase in the Dissolved Oxygen Concentration
- Loss of CO₂
- Increase in the pH resulting from decreased inorganic carbon concentration.

The ability of a water to control pH change is a result of alkalinity. Alkalinity is a measurement of the ability to buffer changes in pH. Most of the Alkalinity in the Yamhill is provided by carbon. Excessive algal growth consumes the carbon in the buffer, causing the pH to increase. Since photosynthesis is the dominant sink for inorganic carbon, algal growth can be related stoichiometrically to changes in pH. At the peak pH level of 9.5 observed in the Yamhill River, photosynthesis would have to be reduced between 40 to 60% to maintain the standard pH of 8.5. The Department's analysis suggests that the 70 ug/l total phosphorus criteria would attain the required reduction.

TMDL-WLA-LA

The loading capacity of the Yamhill River for phosphorus is defined as 70 ug/l total phosphorus. The evaluation process used defines loads and allocations for a series of flow conditions. For the Yamhill, allocations are distributed by three subbasins: South Fork Yamhill, North Fork Yamhill, and the mainstem Yamhill.

Mass balance procedures were used to develop the allocations. Existing loads were compared to instream concentrations for various flow conditions.

This procedure allowed the estimation of nonpoint source loads, dilution from tributaries, and instream assimilation.

The water quality limited sections are defined as:

The South Fork below McMinnville,

The North Fork below Carlton, and

The mainstem Yamhill.

Point sources requiring waste load allocations include the three municipal treatment plants. In addition, the City of Yamhill has requested a waste load allocation in the event that future needs require discharge to the river.

Upstream load allocations for the North and South Yamhill Rivers are calculated using an existing instream concentration of 50 ug/l of total phosphorus. Additionally, the Department is holding in reserve 5 ug/l for each subbasin.

The allocations, in pounds per day of total phosphate as P, for each basin are presented below. Loads are calculated using the lower end of the presented ranges. For the lowest flow range the design flow is noted in parenthesis.

Total Phosphorus Loads (lbs/d) relative to Flow
Flow as Measured at Whiteson

| South Fork Basin Allocation / Description | less than 50 cfs | | 100 - 200 | Greater than 200 cfs | |
|--|---------------------|---------|-----------|-------------------------|--|
| | (15) | 50 -100 | | | |
| LA South Fork NPS | 4.0 | 13.5 | 27.0 | 53.6 | |
| WLA McMinnville STP | 3.5 | 6.7 | 10.8 | 19.2 | |
| LA Department Reserve | 0.5 | 1.3 | 2.7 | 5.3 | |
| TMDL (basin) | 8.0 | 21.5 | 40.5 | 78.1 | |

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Total Phosphorus Load (lbs/d)

| North Fork Basin Allocation / Description | ¹ Estimated Flow North Fork | | | |
|--|--|---------|---------|------------------------|
| | less than 15 cfs (7) | 15 - 30 | 30 - 50 | Greater than 50 cfs |
| LA North Fork NPS | 1.8 | 3.9 | 8.0 | 13.4 |
| WLA Carlton | 0.3 | 0.7 | 1.3 | 2.1 |
| WLA Yamhill | 0.3 | 0.7 | 1.3 | 2.1 |
| WLA Cove Orchard ² | ---- | --- | ---- | ---- |
| LA Department Reserve | 0.2 | 0.4 | 0.8 | 1.3 |
| TMDL | 2.6 | 5.7 | 11.4 | 18.9 |

Total Phosphorus Loads (lbs/d)

| Mainstem Yamhill Allocation / Description | ³ Estimated Flow Below Lafayette | | | |
|--|---|----------|---------|-------------------------|
| | less than 75 cfs (30) | 75 - 145 | 145-275 | Greater than 275 cfs |
| LA Upstream Input | 10.6 | 26.9 | 51.4 | 96.7 |
| Assimilation | 1.5 | 3.2 | 5.2 | 6.5 |
| Allocatable Load | 2.2 | 4.4 | 8.2 | 13.0 |
| WLA Lafayette | 1.2 | 2.0 | 3.3 | 3.8 |
| LA Mainstem NPS | 0.5 | 1.3 | 3.1 | 6.9 |
| LA Department Reserve | 0.5 | 1.1 | 1.8 | 2.3 |
| TMDL | 11.3 | 28.1 | 54.4 | 103.2 |

Note: WLA: Portion of the assimilative capacity allocated to a point source.

LA: Portion of the assimilative capacity allocated to nonpoint sources, background, assimilation, or reserved for future growth and development.

TMDL: Sum of the WLAs and LAs.

1 Estimates are from USGS historical data from the North Yamhill at Pike, plus flow from Carlton STP and estimates of flow from the Panther/Backer Creek subbasin.

2 The City of Cove Orchard is in the planning phase for reviewing alternatives to fix a failing subsurface system. Options that are being considered include discharge. The Department would have to

provide an allocation for such a discharge. The amount allocated would depend on receiving stream flow, assimilation, and any reserves allocated.

- 3 Estimates are made by summing the flows from the South Fork, the North Fork and estimated flows entering the mainstem Yamhill for each flow range. Estimated inflows to the mainstem for each flow range in cfs are 1.34, 3.34, 8.35, and 18.3 respectively.

The LA represent existing conditions with an added reserve set aside by the Department for future growth and development. The basins have been further subdivided into several sub-basins, which are cross-referenced to land use and political entity. These refinements allow LAs to be further divided as needed, or requested by coordinating agencies.

The WLA assumes equal effort for point sources in each subbasin. The WLA for McMinnville utilizes the remaining assimilative capacity for the Yamhill after the Department has held its reserve. The WLA for Lafayette is dependent on the instream assimilation and dilution from tributary flows. The WLAs may be revised pending further work sessions with interested parties in the basin.

Effect of TMDLs and WLAs

Nonpoint sources do not appear to contribute excessive nutrient loads to the mainstem Yamhill River. The load allocations have been established to reflect existing conditions. Reserves have been allocated which provide for future growth and development.

Waste load allocations will directly affect the communities of Carlton, Yamhill, McMinnville, and Lafayette. The City of Carlton is in the process of planning a new wastewater facility. The WLA provides a required goal for the new plant. The WLA therefore provides the design criteria to assure the new plant will not result in water quality violations. No increased costs are expected to result for Carlton due to the WLA.

The WLA to Yamhill provides a requested reserve for the city. The City felt this was necessary to keep their options open for future needs. No direct impacts to the City of Yamhill are expected due to issuing the WLA.

The City of McMinnville's wastewater treatment plant is the major source of nutrients discharged to the Yamhill River. To achieve the WLA will require reducing existing loads by as much as 90% during low flow conditions. Several options are available for achieving the WLA. These options include beneficial reuse by irrigation on city owned or agricultural land, summer holding, advanced treatment with phosphorus removal, or a combination of these alternatives. Costs will also be dependent on the time frames required to achieve compliance. The City of McMinnville has hired a consultant to review potential options and submit a program plan to the Department.

The City of Lafayette provides a significant load of phosphorus to the Yamhill River. To achieve the 70 ug/l total phosphorus would require load

reductions from Lafayette under any circumstances. For example, 130 cfs of dilution flow, at upstream phosphorus levels, would be required for Lafayette to discharge its design flow and not exceed 70 ug/l. Minimum monthly average low flows below 130 cfs have been observed from June through November. Options for Lafayette may depend on the options selected by upstream dischargers. However, Lafayette needs to review options for limiting phosphorus loads during summer low flow conditions.

Existing Concerns:

Salt Creek.

The proposed rules derived from this study do not directly set a criteria for Salt Creek. Salt Creek drains into the South Yamhill above McMinnville. The load from Salt Creek is calculated into the LAs and target criteria for the South Yamhill. Salt Creek routinely violates the dissolved oxygen standard, falling below 1.5 mg/l in the late summer. Salt Creek also has high nutrient concentrations and elevated chlorophyll a levels. Since the LA for the South Yamhill is established on existing conditions, the load from Salt Creek is accounted for. However, the Department may assess water quality in Salt Creek and establish a specific load allocation in the future if this is determined to be appropriate.

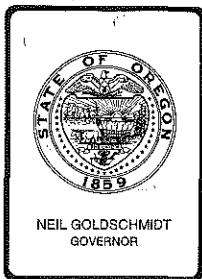
Available Dilution.

Oregon Administrative Rules provide an index of dilution required to assimilate point source discharges. This rule states that the effluent biochemical oxygen demand divided by the dilution ratio shall not exceed one. For McMinnville, with its existing effluent quality, this rule suggests 80 cfs for dilution. Insufficient dilution flows occur on the average of over three months per year.

Dissolved Oxygen - NH3.

Dissolved oxygen is seldom violated at sampling locations in the Yamhill River. One reason for this is the relatively low ammonia concentration discharged from McMinnville. As the Department reviews the control options, it is necessary to assure that the assimilative capacity for oxygen demanding wastes is not exceeded. Prior to evaluating control options, however, the Department may need to define the TMDL for BOD.

WA 27
6512
a



Department of Environmental Quality

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: March 3, 1989
Agenda Item: M
Division: Water Quality
Section: Industrial Waste

SUBJECT:

Proposed Rules Requiring Control of Stormwater Discharges from New Development in the Tualatin River Subbasin.

PURPOSE:

The proposed rules are intended to assure that new development in the Tualatin River Subbasin is provided with facilities to control and reduce the level of pollutants discharged until local jurisdictions develop and implement their own program plans for controlling pollutants in urban runoff.

ACTION REQUESTED:

- Work Session Discussion
 - General Program Background
 - Program Strategy
 - Proposed Policy
 - Potential Rules
 - Other: (specify)

- Authorize Rulemaking Hearing
 - Proposed Rules (Draft) Attachment A
 - Rulemaking Statements Attachment B
 - Fiscal and Economic Impact Statement Attachment C
 - Draft Public Notice Attachment D

- Adopt Rules
 - Proposed Rules (Final Recommendation) Attachment _____
 - Rulemaking Statements Attachment _____
 - Fiscal and Economic Impact Statement Attachment _____
 - Public Notice Attachment _____

- Issue Contested Case Decision/Order
 - Proposed Order Attachment _____

- Other: (specify)

DESCRIPTION OF REQUESTED ACTION:

The Department is proposing rules for the treatment and control of urban stormwater runoff in the Tualatin River Subbasin. The proposed rules will:

1. Require that interim stormwater control systems be installed during construction activities in order to control sediment runoff.
2. Require residential, commercial, or industrial developments involving 20 acres or more to submit an approvable plan for construction and maintenance of permanent stormwater treatment and control facilities as a condition of a preliminary plat or site approval.
3. Require subdivisions and industrial or commercial developments of less than 20 acres to be included in a local improvement district established to provide for the construction and maintenance of permanent stormwater treatment and control systems. Single family residence construction is exempt from this requirement.
4. Refer to best management practices (BMPs) already established for the treatment and control of urban stormwater but provide for others to be included as they are developed.
5. Require that permanent stormwater treatment systems achieve a removal efficiency of 65% for phosphorus and 85% for sediment.
6. Require a registered professional engineer to certify that the stormwater control facilities proposed will achieve the required removal efficiencies for phosphates and sediment.
7. Require a bond posted by the developer and placed with the jurisdiction to assure that stormwater control facilities are properly constructed.
8. Allow the Director to grant an exemption of the requirement to construct a permanent stormwater treatment system if the development will be part of an area-wide system.
9. Requires owners to get a permit from the Department for construction and operation of stormwater control and treatment systems.

development because of space taken by the stormwater control facilities.

2. Local jurisdictions will be affected because the proposed rules will:

a. require additional staffing and other resources to review development plans to assure stormwater control systems are included, and

b. in some cases, require operation and maintenance of stormwater control systems serving new subdivisions.

PROGRAM CONSIDERATIONS:

If the proposed rules are adopted as drafted, the Department should not have to expend a significant amount of resources once the permits have been drafted and once the local jurisdictions get staffed up to handle the requirements. The time associated with permit processing can be reduced to a few days if the Department issues a general permit which could adequately cover most applications. This assumes that there are few permit applications for unconventional stormwater control systems. Such applications could take several weeks of staff resource to review the application and prepare and issue a permit because the unconventional technology would need to be evaluated.

The Department believes, however, that once the rules take effect, there will be a number of developers caught unaware. Resolving problems resulting from these people will be time consuming. Further, the rules may make some developments infeasible. Such problems will also be time-consuming because it is likely that the developer will attempt to obtain relief in some form from local and state officials.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Do nothing at this time. The counties within the Tualatin and Oswego Lake subbasins are responsible for putting together a stormwater management plan such that the waste load allocations for stormwater meet the subbasin standards. This alternative has the advantage of putting the responsibility back on the counties without committing Department resources. The disadvantage is that, until the counties get their programs designed and implemented, development will continue to occur

without any thought to designing for stormwater control and treatment.

2. The Department considered regulating all development in the basin with a simple permit program implemented by the Department. This alternative could be implemented immediately so that new development could be controlled until such time as the counties complete and implement their plans. This alternative puts all of the burden upon the Department to control storm runoff from all of the new developments and to review and approve each storm water control and treatment system.

3. The third alternative is to draft rules which establish some basic criteria for developers to follow until such time as the counties have implemented their plans. The process would be regulated by a simplified permit process. However, the burden of approving the development would remain with the local planning jurisdictions. Since the local jurisdictions do not yet have the expertise to review and approve plans for stormwater control and treatment systems, reliance will be placed upon the requirement that facilities be designed in accordance with known technology and that all plans be submitted by professional engineers. This alternative puts some burden upon the Department because of the permitting requirement but the primary approval process will remain with the local jurisdiction. This is the alternative which the Department considers most appropriate and upon which the draft rules are based.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Director recommends that the Commission authorize the Department to proceed with a hearing on the rules as proposed, based upon the following:

1. The proposed rules meet the requirements specified in the Tualatin TMDL rule [OAR 340-41-470(3)]
2. The proposed rules will provide a practicable and effective approach to controlling storm water quality on new development in the Tualatin subbasin until the program plans are developed and implemented.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The proposed rules are different from those anticipated by OAR 340-41-470(3)(j)(C) in that it specified that the permit be issued to the local jurisdiction. The proposed rules would issue a permit for a specific development which may be under the control of a jurisdiction, but could also be under the control of a private party. Otherwise, the proposed rules are consistent with the requirements of the rule adopted for the Tualatin TMDL.

ISSUES FOR COMMISSION TO RESOLVE:

1. When should the rules go into effect? If the rules go into effect when they are filed with the Secretary of State (usually less than a week after the EQC adopts them), some developers will have to redo their plans. From their perspective, this may be unreasonable. On the other hand, the fact that the Commission is considering such rules, may cause developers to rush their projects in order to have their projects approved before the rules go into effect.

2. The Department does not intend for the jurisdictions to review and approve the design criteria for the storm water control systems. Design will be based on already developed criteria, but will rely on the designer being capable of applying that criteria appropriately. The rules do require that the plans be certified by a registered professional engineer. The Department believes that expertise of engineering professionals should assure proper design.

3. The proposed rules require installation of a stormwater control system capable of providing a certain removal efficiency as determined by the manual Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs, Metropolitan Washington Council of Governments. Is this acceptable assurance or should the rules or permit require either a given removal efficiency or effluent concentration as performance standards instead of only a design criteria? Performance standards would impose a greater level of responsibility, and also uncertainty, on the developer. If the Commission believes that a concentration limit should be specified in the rules or in the permit, a concentration of 0.07 mg/l would seem to be the most logical, since the phosphorus TMDL is based on this concentration. Even if a system met the concentration limit of 0.07mg/l, however, this is no guarantee that the load allocation for the particular urban area would be met. Concentrations of phosphorus less than 0.07 mg/l may be necessary on new development to compensate for higher

concentrations coming from existing older development that may not be able to reduce phosphorus concentrations as easily as the newer developments.

4. In order for the subbasin to achieve the TMDL, each load allocation and waste load allocation must be met. This will require, in the urban areas, controls for both existing development as well as new development. Controls on new development will contribute to achieving the load allocations, but it is most likely that additional controls will also be required. Developers may argue that, if they provide approved controls when their development is constructed, any additional controls should be imposed on, or at least paid for, by existing development only. At this time, no one knows what additional controls will be required in the approved program plans. The Department believes it would be foolish to commit to developers that the controls imposed by this rule will be all that will ever be required.

5. The Department believes it is likely that the rules as proposed will, in a few cases, cause some developments to be no longer feasible. Developments would be infeasible if the costs of providing stormwater control facilities were excessive or if the systems consumed too much of the area available for development. The Department believes that there are a sufficient number of alternative stormwater systems such that total interference with development will be rare. Nevertheless, they could occur. Should the rules allow for exemptions where development is not found feasible? If an opportunity for exemption is considered appropriate, what should the criteria be? If the Department or Commission is determined the appropriate body for considering an exemption, this could consume substantial resources even if they are rare.

6. The proposed rules do allow an exemption from construction of a stormwater treatment system for a development if an area-wide stormwater control system is proposed. In some cases, an area-wide system may be more efficient use of resources. If both an individual treatment system and an area-wide system are practicable, should the Department hold out for the area-wide system? The proposed rules would not allow the Department or the local jurisdiction to do this.

7. To what extent should the Department oversee approvals made by the local jurisdiction? At this stage, because of limited resources, the Department would not wish to provide an oversight role. The Department believes it is in the local jurisdiction's best interest to assure optimum design, otherwise the jurisdiction will face even more troublesome burdens in trying to achieve their load allocations.

Meeting Date: March 3, 1989
Agenda Item: Storm Water Rules
Page 8

INTENDED FOLLOWUP ACTIONS:

Schedule public hearing for proposed rules.


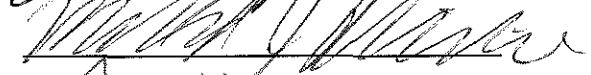

Come back to the Commission with a final recommendation at
June 2, 1989, Commission Meeting.

Approved:

Section:

Division:

Director:

Report Prepared By: Charles K. Ashbaker

Phone: 229-5325

Date Prepared: February 1, 1989

cka:cka
DEQ.TR5
February 14, 1989

Attachment A

DRAFT RULES

340-41-455 (3) Non-point source pollution control in Tualatin River sub-basin:

(a) For residential, commercial, or industrial developments, no preliminary plat, site plan, or building permit shall be approved by any jurisdiction in this sub-basin unless the plat or plan includes interim stormwater control facilities to be constructed prior to land development and to be operated during construction to control the discharge of sediment in the stormwater runoff. Any sediment ponds constructed shall have sufficient storage to provide a two (2) hour retention for a three (3) inch rainfall event and shall be constructed with an emergency overflow to prevent erosion or failure of the containment dike. Where sediment ponds are not practicable, other sediment control facilities may be used, such as hay bales or other filtration media, provided they are arranged in a manner which will provide equivalent sediment control.

(b) For subdivisions, commercial developments, or industrial developments, twenty (20) acres or over in total area, no preliminary plat or site plan shall be approved by any jurisdiction in this sub-basin unless the requirements in paragraphs (A) through (C) are met.

(A) The preliminary plat or site plan shall include permanent stormwater control facilities capable of achieving 65% removal of phosphorus and 85% of sediment from a one and one-half (1 1/2) inch summertime storm event based upon the design criteria stated in Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs. The preliminary plat or site plan proposed by the developer shall include conceptual plans and a certification prepared by a registered, professional engineer that the proposed stormwater control facilities are capable of achieving the required treatment efficiencies.

(B) An agreement must be consummated between the developer and the jurisdiction that assures that the permanent stormwater control facilities will be operated and maintained in perpetuity. The agreement shall define who shall be responsible for obtaining a permit from the Department as required in subsection (d) of this section.

(C) A bond, or equivalent security acceptable to the jurisdiction, shall be posted by the developer with the jurisdiction that assures that the storm water control facilities are constructed according to the plans established in the preliminary plat or site plan approval.

(c) An exception to subsection (b) may be granted by the Director subject to the following requirements:

(A) An area-wide stormwater control system will be provided to control the release of pollutants in the storm runoff;

(B) The development or subdivision would be served by the area-wide stormwater control system;

(C) Land necessary for the stormwater control facilities has been acquired;

(D) An area-wide stormwater control plan has been developed and approved by the Department of Environmental Quality. The plan shall include a time schedule for ensuring the facilities are installed before or concurrently with the development; and

(E) A permit has been issued by the Department to the local jurisdiction assuring adequate operation and maintenance of the stormwater control facilities.

(d) Any person who constructs or operates a stormwater control facility required by subsection (b) of this section shall have obtained a permit from the Department of Environmental Quality prior to construction.

(e) For any residential, commercial, or industrial development on parcels less than twenty (20) acres, no final plat shall be approved, for residential subdivisions, or final occupancy permit issued for industrial or commercial developments unless the development is included in a local improvement district specifically established to construct, operate, and maintain permanent stormwater control facilities capable of serving that development. The district shall have the legal authority to construct, operate, and maintain stormwater control facilities and to collect the necessary revenues to finance such activities.

(f) Single family residences outside urban growth boundaries and on lots of five (5) acres or more are exempt from the requirements in section (a).

(g) Single family residences are exempt from sections (b) and (e).

(h) As local jurisdictions adopt a program equivalent to those established in this section, these requirements will no longer apply to the development in that jurisdiction.

(i) The developer may choose an alternative design criteria for a permanent stormwater control facility required that is not

found in the manual Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs. In this case, a preliminary plat or site plan shall not be approved by any jurisdiction in the Tualatin River sub-basin unless the developer applies for and receives a permit from the Department. Any application for permit for a stormwater control facility located in the Tualatin River sub-basin shall include necessary technical documentation to support that the proposed system will achieve 65% removal of phosphorus and 85% removal of sediment.

(j) As the Department obtains additional information on appropriate BMPs for controlling stormwater quality, the Director may add additional BMPs and associated design criteria to those allowed in the manual Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs.

DEQ.TS2

Attachment B

STATEMENT OF NEED FOR RULEMAKING

(1) Legal Authority

ORS 468.020 requires the Environmental Quality Commission to adopt rules as necessary for performing its legislatively mandated functions. Water pollution control is one of those functions.

OAR 340-41-470(3)(j)(C) requires the Department to propose rules for permits to control storm water from new development within the Tualatin and Oswego Lake subbasins. The rules were to be proposed by March 8, 1989.

(2) Need for the Rule

There is an over abundance of nutrients in the Tualatin River. These excessive nutrients, primarily phosphorus, cause excessive algae blooms and depress dissolved oxygen. One of the contributors of these nutrients is urban stormwater runoff. The proposed rules will provide some treatment and control of stormwater runoff in the Tualatin and Oswego Lake subbasins until such time as the counties and cities in the subbasins have implemented their own program plan for addressing the problem.

(3) Principal Documents Relied Upon in this Rulemaking

ORS Chapter 468 "Pollution Control"

OAR 340-41-470 "Special Policies and Guidelines"

OAR Chapter 340 Division 45 "Regulations Pertaining to NPDES and WPCF Permits"

Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs

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

LAND USE COMPATIBILITY STATEMENT

The proposed rule will affect both goals 6 and 11.

Goal 6 (Air, Water and Land Resources Quality): This proposal is designed to improve water quality in the area by reducing the discharge of nutrients and sediment and is consistent with the goal.

Goal 11 (Public Facilities and Services): This proposal will require the establishment of some local improvement districts for the construction and operation of permanent stormwater control facilities. This is likely to be an added cost to those who would be residing within the boundaries of these districts.

ATTACHMENT C

FISCAL AND ECONOMIC IMPACT OF PROPOSED STORMWATER REGULATIONS

The proposed regulations require all new real estate developments within the Tualatin River Subbasin to provide temporary storm runoff control systems during construction. Permanent stormwater treatment systems will be required for some larger developments (i.e. over 20 Acres). For others, they must become part of an area-wide stormwater treatment system. A performance bond for construction will be required. Prior to any construction, developer(s) must obtain a stormwater control facility permit from the Department of Environmental Quality (DEQ) for the proposed development(s). Furthermore, local jurisdictions will be required to develop area-wide stormwater control plans for DEQ review and approval.

Overall Impact

The proposed regulations will affect Washington County, portions of Multnomah and Clackamas Counties, and all incorporated cities within the Tualatin River Subbasin. All new real estate developments will be required to have interim stormwater control facilities. The interim system must be able to control sediment generated from a three (3) inch storm event. The larger developments, over twenty (20) acres, must also provide permanent stormwater control facilities. The permanent system must be designed to remove 65% phosphorous and 85% sediment from a one and a half (1-1/2) inch summertime storm event. These interim and permanent stormwater control systems will have some financial impacts not only to all businesses and residents but also to the local jurisdictions within the basin. Since there are many jurisdictions within the Tualatin River Subbasin, and since property values vary significantly between jurisdictions and categories, it is impossible to determine the overall financial impact of the region.

Impact on developer or individual land owner

In order to demonstrate the potential financial impacts to the developer(s) and individual homeowner(s), a hypothetical multi-family development within the City of Beaverton was selected as an example. Three scenarios were assumed, i.e. a) a 24 unit apartment on a two (2) acres land, b) a 120 unit apartment on a ten (10) acres land, and c) a 580 unit apartment complex in a thirty (30) acres land. During the construction phase, the developer(s) might incur an additional expense of \$5,500 to \$40,000 for the interim sediment control facilities (Table 1). However, the permanent stormwater control systems for the various scenarios would range from \$9,000 to \$132,000 (Table 2). If these capital costs were evenly divided between the individual homeowners, the additional costs ranged from \$50 to \$240 for the interim system, and \$220 to \$530 for the permanent control system. Annual operating and maintenance costs for the permanent systems ranged \$70 to \$1,000.

If the hypothetical development was required to provide both interim and permanent control facilities, the projected maximum costs would be \$175,000. This amount would be a small percentage (0.25-0.5%) of the total project costs. For the individual homeowner, each basic apartment unit cost could be increased by no more than 0.7%. Based on this example, it is clearly demonstrated that the proposed regulations would not cause great hardship on the developer(s) or the individual homeowner(s).

Because of the lack of practicable alternatives and the land constraints associated with building permanent stormwater treatment systems for developments of less than twenty (20) acres, the proposed rules require only development over twenty (20) acres to build permanent facilities. Those development less than twenty (20) acres must become part of an area-wide system. It is anticipated that their costs, as part of an improvement district managing an area-wide system, should be about the same as the allocated cost of developments over twenty (20) acres.

Using similar evaluation criteria, the potential financial impacts on any commercial and industrial development(s) within the region would be small. The projected impact on small business, such as those merchants leasing or owning a small shop in a shopping complex, may be approximately a 1% increase in their basic property costs or in their annual rental costs.

Impact on the local Jurisdiction

The City of Beaverton was selected to demonstrate the potential financial impacts caused by the proposed rules. Currently there are 328.27 gross acres of multi-family development sites. Because of some physical site characteristics, such as steep slope, flood plain, or wet land, only 296.5 net acres are suitable for immediate development. Assuming there were ten (10) service districts serving the developable acreage, and if each service district, serving 30 acres of land, were required to set aside 0.85 acres for their permanent stormwater control systems, there would be a total net loss of 8.5 acres of developable properties, which would be equivalent to a loss of approximately 0.75 million dollars of property revenue. This projected financial impact to the local jurisdiction could be less if those undevelopable sites (i.e. flood plains, etc.) could be utilized for the permanent stormwater control systems.

Summary

The proposed rules will have small financial impacts to the developer or individual landowners, but do affect the local jurisdiction in terms of property revenue.

TABLE 1 ---- COST SUMMARY FOR INTERIM SEDIMENT CONTROL SYSTEMS

CITY OF BEAVERTON (DIST. 13 & 14)

| MULTI/FAMILY RESIDENTIAL DEVELOPMENT | STORAGE VOLUME (CU.FT.) | LAND (AC.) CONSUMPTION | CONST. COST (1985 DOLLAR) | CONTINGENCY (25%) | TOTAL MAINT. COST | O&M COST | LAND COST | GRAND TOTAL (1988 DOL.) | INDIVIDUAL COST |
|--|----------------------------|---------------------------|------------------------------|----------------------|----------------------|-------------|--------------|----------------------------|--------------------|
| SCENARIO A) -- 24 units Apartment Complex on 2 Acre land BMP ALTERNATIVES FOR < 2.0 ACRE | | | | | | | | | |
| a) SEDIMENTATION POND | 1511.90 | 0.01 | \$3,684.45 | \$921.11 | \$230.28 | | \$795.57 | \$5,609.45 | \$233.73 |
| SCENARIO B) -- 120 units Apartment Complex on 10 Acre Land BMP ALTERNATIVES FOR 2.0 TO 10.0 ACRE | | | | | | | | | |
| a) SEDIMENTATION POND | 7641.15 | 0.05 | \$5,118.81 | \$1,279.70 | \$319.93 | \$127.97 | \$4,020.84 | \$10,708.77 | \$89.24 |
| b) INFILTRATION TRENCH C/W SM. SED. POND | 7641.15 | 0.01 | \$8,714.54 | \$2,178.64 | \$2,723.29 | \$326.80 | \$1,005.21 | \$14,361.96 | \$119.68 |
| c) INFILTRATION BASIN C/W SM. SED. POND | 7641.15 | 0.01 | \$6,393.73 | \$1,598.43 | \$1,998.04 | \$79.92 | \$1,005.21 | \$10,804.86 | \$90.04 |
| SCENARIO C) -- 580 units Apartment Complex on 30 Acre land BMP ALTERNATIVES FOR > 10.0 ACRE | | | | | | | | | |
| a) EXT'D DETENTION POND | 23413.50 | 0.14 | \$11,084.63 | \$2,771.16 | \$692.79 | \$277.12 | \$12,320.40 | \$26,802.91 | \$46.21 |
| b) SEDIMENTATION POND | 23413.50 | 0.14 | \$21,278.32 | \$5,319.58 | \$1,329.90 | | \$12,320.40 | \$40,121.37 | \$69.17 |

TABLE 2 ---- COST SUMMARY FOR PERMANENT STORMWATER CONTROL SYSTEMS

CITY OF BEAVERTON (DIST. 13 & 14)

| MULTI/FAMILY RESIDENTIAL DEVELOPMENT | STORAGE VOLUME (CU.FT.) | LAND (AC.) CONSUMPTION | CONST. COST (1985 DOLLAR) | CONTINGENCY (25%) | TOTAL MAINT. COST | O&M COST | LAND COST | GRAND TOTAL (1988 DOL.) | INDIVIDUAL COST |
|--|----------------------------|---------------------------|------------------------------|----------------------|----------------------|-------------|--------------|----------------------------|--------------------|
| SCENARIO A) -- 24 units Apartment Complex on 2 Acre land BMP ALTERNATIVES FOR < 2.0 ACRE | | | | | | | | | |
| a) INFILTRATION TRENCH | 9071.37 | | \$8,283.53 | \$2,070.88 | \$2,588.60 | \$310.63 | | \$12,696.14 | \$529.01 |
| b) INFILTRATION BASIN | 9071.37 | | \$5,756.76 | \$1,439.19 | \$1,798.99 | \$71.96 | | \$8,823.36 | \$367.64 |
| c) WET POND | 9071.37 | 0.05 | \$5,670.02 | \$1,417.50 | \$354.38 | | \$4,773.44 | \$12,181.54 | \$507.56 |
| SCENARIO B) -- 120 units Apartment Complex on 10 Acre Land BMP ALTERNATIVES FOR 2.0 TO 10.0 ACRE | | | | | | | | | |
| a) EXT'D DETENTION POND | 45846.90 | 0.28 | \$17,623.55 | \$4,405.89 | \$1,101.47 | \$440.59 | \$24,125.07 | \$47,150.92 | \$392.92 |
| b) INFILTRATION TRENCH | 45846.90 | | \$22,988.30 | \$5,747.08 | \$7,183.84 | \$862.06 | | \$35,234.09 | \$293.62 |
| c) INFILTRATION BASIN | 45846.90 | | \$17,607.09 | \$4,401.77 | \$5,502.22 | \$220.09 | | \$26,986.33 | \$224.89 |
| SCENARIO C) -- 580 units Apartment Complex on 30 Acre land BMP ALTERNATIVES FOR > 10.0 ACRE | | | | | | | | | |
| a) EXT'D DETENTION POND | 140481.00 | 0.85 | \$38,163.27 | \$9,540.82 | \$2,385.20 | \$954.08 | \$73,922.41 | \$123,784.22 | \$213.42 |
| b) WET POND | 140481.00 | 0.85 | \$44,263.22 | \$11,065.81 | \$2,766.45 | | \$73,922.41 | \$131,754.05 | \$227.16 |

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

PROPOSED STORMWATER TREATMENT AND CONTROL RULES NOTICE OF PUBLIC HEARING

Hearing Date:
Comments Due:

WHO IS AFFECTED: Most new construction activity in the Tualatin River and Oswego Lake subbasins will be affected. This includes multi-family residences, residential subdivisions, and commercial or industrial developments.

WHAT IS PROPOSED: The Department of Environmental Quality is proposing to amend OAR 340-41-470 by adding a section requiring construction of interim sediment ponds or equivalent sediment control facilities at construction sites. The proposed rules would also require permanent stormwater treatment systems to be built for new developments over 20 acres. The rules would require a DEQ permit for the construction and operation of those water pollution control facilities.

WHAT ARE THE HIGHLIGHTS: Private residences would be excluded from the requirements of the rules. Subdivisions and industrial or commercial developments less than 20 acres must become part of an area-wide permanent stormwater treatment system, probably through a local improvement district. These rules apply only to the Tualatin River and Oswego Lake Subbasins.

HOW TO COMMENT: Copies of the complete proposed rule package may be obtained from the Water Quality Division in Portland (811 S.W. Sixth Avenue). For further information contact Charles K. Ashbaker at (503) 229-5325.

A public hearing will be held before a hearings officer at:

(TIME) _____

(DATE) _____

(PLACE) _____

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ's Water Quality Division, 811 S.W. Sixth Avenue, Portland, Oregon 97204, but must be received by no later than _____.



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 IS THE
NEXT STEP:

After public hearing, the Environmental Quality Commission may adopt rules identical to those proposed, adopt modified rules on the same subject matter, or decline to act. The Commission's deliberation should come in _____ as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need, Fiscal and Economic Impact Statement, and Land Use Consistency Statement are attached to this notice.

WJ1494

SPECIAL POLICIES AND GUIDELINES

340-41-470

- (1) In order to preserve the existing high quality water for municipal water supplies and recreation, it is the policy of the EQC to prohibit any further waste discharges to the waters of:
 - (a) The Clackamas River Subbasin;
 - (b) The McKenzie River Subbasin above the Hayden Bridge (river mile 15);
 - (c) The North Santiam River Subbasin.
- (2) The Environmental Quality Commission shall investigate, together with any other affected state agencies, the means of maintaining at least existing minimum flow during the summer low flow period.
- (3) In order to improve water quality within the Tualatin River subbasin to meet the existing water quality standard for dissolved oxygen, and the 15 ug/l chlorophyll a action level stated in OAR 340-41-150, the following special rules for total maximum daily loads, waste load allocations, load allocations, and implementation plans are established.

(a) After completion of wastewater control facilities and implementation of management plans approved by the Commission under this rule and no later than June 30, 1993, no activities shall be allowed and no wastewater shall be discharged to the Tualatin River or its tributaries without the specific authorization of the Commission that cause the monthly median concentration of total phosphorus at the mouths of the tributaries listed below and the specified points along the mainstem of the Tualatin River, as measured during the low flow period between May 1 and October 31*, of each year, unless otherwise specified by the Department, to exceed the following criteria:

| Mainstem (RM) | ug/l | Tributaries | ug/l |
|------------------------|------|--------------|------|
| Cherry Grove (67.8) | 20 | Scoggins Cr. | 60 |
| Dilley (58.8) | 40 | Gales Cr. | 45 |
| Golf Course Rd. (52.8) | 45 | Dairy Cr. | 45 |
| Rood Rd. (38.5) | 50 | McKay Cr. | 45 |
| Farmington (33.3) | 70 | Rock Cr. | 70 |
| Elsner (16.2) | 70 | Fanno Cr. | 70 |
| Stafford (5.4) | 70 | Chicken Cr. | 70 |

(b) After completion of wastewater control facilities and implementation of management plans required approved by the Commission under this rule and no later than June 30, 1993, no activities shall be allowed and no wastewater shall be discharged

[discharge of wastewater] to the Tualatin River or its tributaries without the specific authorization of the Commission [shall be allowed] that cause[s] the monthly median concentration of ammonia-nitrogen at the mouths of the tributaries listed below and the specified points along the mainstem of the Tualatin River, as measured between May 1 and November 15*, of each year, unless otherwise specified by the Department, to exceed the following target concentrations:

| Mainstem (RM) | ug/l | Tributaries | ug/l |
|------------------------|------|--------------|------|
| Cherry Grove (67.8) | 30 | Scoggins Cr. | 30 |
| Dilley (58.8) | 30 | Gales Cr. | 40 |
| Golf Course Rd. (52.8) | 40 | Dairy Cr. | 40 |
| Rood Rd. (38.5) | 50 | McKay Cr. | 40 |
| Farmington (33.3) | 1000 | Rock Cr. | 100 |
| Elsner (16.2) | 850 | Fanno Cr. | 100 |
| Stafford (5.4) | 850 | Chicken Cr. | 100 |

- (c) The sum of tributary load allocations and waste load allocations for total phosphorus and ammonia-nitrogen can be converted to pounds per day by multiplying the instream criteria by flow in the tributary in cfs and by the conversion factor 0.00539. The sum of load allocations waste load allocations for existing or future nonpoint sources and point source discharges to the mainstem Tualatin River not allocated in a tributary load allocation or waste load allocation may be calculated as the difference between

the mass (criteria multiplied by flow) leaving a segment minus the mass entering the segment (criteria multiplied by flow) from all sources plus instream assimilation.

(d) The waste load allocation (WLA) for total phosphorus and ammonia-nitrogen for Unified Sewerage Agency of Washington County is determined by subtracting the sum of the calculated load at Rood Road and Rock Creek from the calculated load at Farmington.

(e) Subject to the approval of the Environmental Quality Commission, the Director may modify existing waste discharge permits for the Unified Sewerage Agency of Washington County and allow temporary additional waste discharges to the Tualatin River provided the Director finds that facilities allowed by the modified permit are not inconsistent and will not impede compliance with the June 30, 1993 date for final compliance and the Unified Sewerage Agency is in compliance with the Commission approved program plan.

[(e) The Director may issue new waste discharge permits containing additional waste load allocations and approve nonpoint source activities containing additional load allocations for total phosphorus and ammonia-nitrogen provided the Director finds that the concentrations specified in sections (a) and (b) will not be exceeded.]

(f) Within 90 days of the adoption of these rules, the Unified Sewerage Agency of Washington County shall submit a program** plan

and time schedule to the Department describing how and when the Agency will modify its sewerage facilities to comply with this rule. The program plan shall include provisions and time schedule for developing and implementing a management plan under an agreement with the Lake Oswego Corporation for addressing nuisance algal growths in Lake Oswego.

(g) Within 18 months after the adoption of these rules, Washington, Clackamas, Multnomah Counties and all incorporated cities within the Tualatin River and Oswego Lake subbasins shall submit to the Department a program plan** for controlling the quality of urban storm runoff within their respective jurisdictions to comply with the requirements of sections (a) and (b) of this rule.

(h) After July 1, 1989, Memorandums of Agreements between the Departments of Forestry and Agriculture and the Department of Environmental Quality shall include a time schedule for submitting a program plan** for achieving the requirements of sections (a) and (b) of this rule. The program plans shall be submitted to the Department within 18 months of the adoption of this rule.

(i) Within one hundred twenty (120) days of submittal of the program plan** and within sixty (60) days of the public hearing, the Environmental Quality Commission shall either approve or reject the plan. If the Commission rejects the plan, it shall specify a compliance schedule for resubmittal for approval and shall specify

the reasons for the rejection. If the Commission determines that an agency has not made a good faith effort to provide an approvable plan within a reasonable time, the Commission may invoke appropriate enforcement action as allowed under law. The Commission shall reject the plan if it determines that the plan will not meet the requirements of this rule within a reasonable amount of time. Before approving a final program plan, the Commission shall reconsider and may revise the June 30, 1993 date stated in sections (a), (b), and (e) of this rule. Significant components of the program plans shall be inserted into permits or memorandums of agreement as appropriate.

(j) For the purpose of assisting local governments in achieving the requirements of this rule, the Department shall:

(A) Within 90 days of the adoption of these rules, distribute initial waste load allocations and load allocations among the point source and nonpoint source management agencies in the basin. These allocations shall be considered interim and may be redistributed based upon the conclusions of the approved program plans.

(B) Within 120 days of the adoption of these rules, develop guidance to nonpoint source management agencies as to the specific content of the programs plans.

(C) Within 180 days of the adoption of these rules, propose additional rules for permits issued to local jurisdictions to address the control of storm water from new development within the Tualatin and Oswego Lake subbasins. The rules shall consider the following factors:

(i) Alternative control systems capable of complying with sections (a) and (b) of this rule:

(ii) Maintenance and operation of the control systems.

(iii) Assurance of erosion control during as well as after construction.

(D) In cooperation with the Department of Agriculture, within 180 days of the adoption of this rule develop a control strategy for addressing the runoff from container nurseries.

*Precise dates for complying with this rule may be conditioned on physical conditions (i.e., flow, temperature) of the receiving water and shall be specified in individual permits or memorandums of understanding issued by the Department. The Department shall consider system design flows, river travel times, and other relevant information when establishing the specific conditions to be inserted in the permits or memorandums of understanding. Conditions shall be consistent with Commission-approved program plans** and the intent of this rule.

**For the purpose of this section of the rules, program plan is defined as the first level plan for developing a waste water management system and describes the present physical and institutional infrastructure and the proposed strategy for changes including alternatives. A program plan should also include intergovernmental agreements and approvals, as appropriate, time schedules for accomplishing goals, including interim objectives, and a financing plan.

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Hist: DEQ 128, f. & ef. 1-21-77

Attachment F

BACKGROUND

PROPOSED REGULATIONS TO ADDRESS THE QUALITY OF STORMWATER RUNOFF FROM NEW DEVELOPMENT IN THE TUALATIN RIVER SUBBASIN

At the Commission's September 9, 1988, meeting, regulations were adopted that established total daily maximum daily loads (TMDLs) for phosphorus and ammonia-nitrogen in the Tualatin River Subbasin. In December, 1989, as required by the regulations, the Department established waste load allocations and load allocations based upon the TMDLs. The waste load allocations determine how much of the TMDL that are given to each point source, sewage treatment plants in the case of the Tualatin subbasin. The load allocations are the portions of the TMDL that are given to the various nonpoint sources in the basin. Nonpoint sources for which load allocations were given are urban runoff, agriculture, and forestry. As a result, for each major stream contributing to the Tualatin River, each city and county has a load allocation, stated in pounds per day, that it may discharge.

The regulations also included requirements for both the Department and the cities and counties in the subbasin. For the purpose of this work session item, there are two requirements of importance:

1. Oregon Administrative Rule (OAR) 340-41-470(3)(g) states: "within 18 months after the adoption of these rules, Washington, Clackamas, Multnomah, Counties and all incorporated cities within the Tualatin River and Oswego Lake subbasins shall submit to the Department a program plan for controlling the quality of urban storm runoff within their respective jurisdictions to comply with the requirements of sections (a) and (b) of this rule."

2. OAR 340-41-470(3)(j)(C) states: "Within 180 days of the adoption of these rules, (the Department will) propose additional rules for permits issued to local jurisdictions to address the control of storm water from new development within the Tualatin and Oswego Lake subbasins. The rules shall consider the following factors:

- (i) Alternative control systems capable to complying with sections (a) and (b) of this rule;
- (ii) Maintenance and operation of the control systems;
- (iii) Assurance of erosion control during as well as after construction."

In developing the total maximum daily load (TMDL) for phosphorus, the Department recognized that the TMDL could not be met merely

with more stringent control of sewage treatment plant discharges. The control of phosphorus from nonpoint sources would also have to be provided. One of the significant nonpoint sources of phosphorus is urban runoff. The rules addressed this issue by requiring the counties and cities in the subbasin to develop and submit program plans to control the quality of storm water in their respective jurisdictions (item 1. above).

There was also a concern that storm water quality problems would continue to increase during the interim period while the nonpoint source program plans were being developed and implemented. It was felt that some steps should be taken during the interim to control or at least minimize the increase in pollutants resulting from new development. The question was how could this be best done? Representatives of local government did not feel that they had the technical expertise or the institutional capabilities or resources to quickly and legally adopt ordinances to address the quality of storm water for the interim period. Further, it was felt that interim programs developed separately and differently by each entity would lead to confusion of everyone involved.

The Department believed that it did have the technical expertise, but it did not have the resources to deal directly with individual development proposals in the subbasin. Further, the Department felt that service to developers and builders could be best provided at the local level rather than the state level. The rule for interim storm water control on the Tualatin as finally adopted was intended to deal with the concerns of both local entities and the Department.

The Department has researched the available technologies that have been developed around the country for treating and controlling storm water runoff. A manual produced by the Department of Environmental Programs, Metropolitan Washington Council of Governments entitled Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs, July, 1987, contains a reasonably comprehensive list of technologies that have been used nationally. The manual lists design criteria, siting and operational considerations, performance expectations and other good information on stormwater treatment and control systems.

The capabilities of storm water control systems depend on a number of factors including the soils where the system is to be located and the amount of area to be served by the system. In general the soils in the Tualatin basin tend to be very fine textured (clays and silts) and, as a result, severely restrict infiltration of water into the ground. According to the manual Controlling Urban Runoff, systems that function well in soils with fine textures must serve surface areas greater than twenty acres. As a result, there are no available technologies that are capable of providing good removals of phosphorus and sediment that can serve smaller development in the Tualatin basin.

The Department has developed proposed rules to deal with stormwater discharges from new development in the subbasin on an interim basis. The proposed rules:

1. Require that proposed storm water systems be addressed at the first step of obtaining local approval for residential subdivisions as well as industrial or commercial developments.

2. Require that all construction activities, except single family residences on large lots outside urban growth boundaries, provide interim stormwater controls to control sediment during construction.

3. Require residential, commercial, or industrial developments involving 20 acres or more to submit an approvable plan for construction and maintenance of permanent stormwater treatment and control as a condition of plat or site approval.

4. Utilizes best management practices (BMPs) already developed. These BMPs and associated design criteria and other information are included a manual entitled Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs.

5. Require that a registered professional engineer certify that the stormwater facilities included in the plans submitted to the jurisdiction will meet required removal efficiencies based on criteria in the manual.

6. Specify a removal efficiency of 65% for phosphorus and 85% for sediment.

7. Require a bond posted by the developer and placed with the jurisdiction to assure that stormwater control facilities are properly constructed.

8. Require an agreement between the developer and the jurisdiction to assure operation and maintenance pursuant to a permit issued by the Department.

9. Allow the Director to grant an exception, subject to specific criteria, for certain developments if an area-wide stormwater control system will be provided.

10. Provide a mechanism for a developer to propose alternative BMPs to those outlined in the manual Controlling Urban Runoff.

11. Provide a mechanism for the Director to add BMPs and associated design criteria to those specified in the manual.

From the perspective of either the Department, local jurisdiction, or a developer, there are numerous advantages and disadvantages to the proposed rules. The rules certainly add to the burdens and costs of the developer in obtaining approval for a development. The Department has tried to keep this to a minimum by using, as much as practicable, the building and planning approval mechanisms already in place at the local government level. The Department's

role in issuing permits should impose only very minimal effort and cost on the developer. The Department is considering issuing a general permit in order to reduce the paperwork and time involved in the permitting process for both the applicant and the Department.

The local jurisdictions will have additional issues to address in reviewing development proposals. Some jurisdictions do not have adequate staff to deal with current planning and building requirements. The Department has tried to reduce the amount of additional work by putting the responsibility for assuring a proper design on the designer by requiring that individual to be a registered, professional engineer and to certify that the proposed facilities are capable of meeting the removal efficiency criteria in the manual Controlling Urban Runoff.

The cost of development in the basin will increase as a result of these proposed rules. The cost of providing stormwater control facilities when the development is constructed, however, should be less than if the stormwater control facilities must be retrofitted after construction is completed.

Development may be curtailed in certain areas until permanent stormwater control systems can be designed and constructed or until a local improvement district can be organized and plans laid to address the stormwater issues in the area.

Another disadvantage of the proposed rules is that, for the development over 20 acres, the stormwater control systems are only required to meet a given removal efficiency for phosphorus and sediment. Construction and operation of these systems, in themselves, do not assure that the load allocations can be met. The required efficiencies, to be sure, are as high as one can reasonably expect, but there is no way, until the program plans are complete, to verify that further controls will not be necessary. It may be necessary that other steps be required in addition to providing stormwater control systems. Conceivably, such steps could include a ban on phosphate-containing detergents, restrictions on the application of lawn and garden fertilizers, or other measures. The Department believes that such steps should be considered and defined in the program plans that are being prepared by the local jurisdictions.

The Department could specify a concentration limit to be met by each stormwater control system. What concentration should be specified? One could use 0.07 mg/l of phosphorus because this is the concentration upon which the phosphorus TMDL was based. Even with the removal efficiencies proposed in this rule, additional restrictions as discussed above may be necessary to meet a 0.07 mg/l phosphorus limit. In addition, concentrations of phosphorus below 0.07 may be necessary on new development to compensate for higher concentrations coming from older development that may not be able to reduce phosphorus concentrations as easily as the newer development. The Department believes that concentration limits should be set to address the actual load allocations and this

cannot be done until the program plans are developed. Consequently, removal efficiencies are believed to be the most appropriate design and performance criteria at this time.

There are several alternatives that could be considered:

1. Do not require stormwater control systems to be installed until the program plans are developed and implemented. Instead, developers could contribute money to a sinking fund to construct the facilities on an area-wide basis once the program plan defines what those facilities might be. This approach assumes that land would be available for such facilities and also allows a continued increase in pollution to occur while the program plans are being developed and implemented. This approach, however, would assure that the facilities being constructed would be consistent with the load allocations established for the subbasin.

2. The rules could require that each development be approved by the Department after a review of the impact upon the load allocation. Such a system would probably require that an individual permit be issued in each case. Such an approach would be time-consuming for the developer and would impose significant resource commitments on the Department.

3. The rules could require that the local jurisdictions develop a system similar to that proposed in alternative 2 above. As previously stated, the jurisdictions currently do not have the expertise and would be unable to obtain such expertise for, at least several months. Further, the jurisdiction would have to develop ordinances in order to implement such a program. This would also take considerable time.

There are other issues for the Commission to consider concerning these rules:

1. When should the rules go into effect? If the rules go into effect when they are filed with the Secretary of State (usually less than a week after the EQC adopts them), some developers will have to redo their plans. From their perspective, this may be unreasonable. On the other hand, the fact that the Commission is considering such rules, may cause developers to rush their projects in order to have their projects approved before the rules go into effect.

2. The Department does not intend for the jurisdictions to review and approve the design criteria for the storm water control systems. Design will be based on already developed criteria, but will rely on the designer being capable of applying that criteria appropriately. The rules do require that the plans be certified by a registered professional engineer. The Department believes that professional ethics should assure proper design.

3. The proposed rules require installation of a stormwater control system capable of providing a certain removal efficiency as determined by the manual Controlling Urban Runoff. Is this acceptable assurances or should the rules or permit require either a given removal efficiency or effluent concentration as performance standards instead of only a design criteria? Performance standards would impose a greater level of responsibility, and also uncertainty, on the developer. If the Commission believes that a concentration limit should be specified in the rules or in the permit, a concentration of 0.07 mg/l would seem to be the most logical since the phosphorus TMDL is based on this concentration. Even if a system met the concentration limit of 0.07mg/l, however, this is no guarantee that the load allocation for the particular urban area would be met. Concentrations of phosphorus less than 0.07 mg/l may be necessary on new development to compensate for higher concentrations coming from older development that may not be able to reduce phosphorus concentrations as easily as the newer developments.

4. In order for the subbasin to achieve the TMDL, each load allocation and waste load allocation must be met. This will require, in the urban areas, controls for both existing development as well as new development. Controls on new development will contribute to achieving the load allocations, but it is most likely that additional controls will also be required. Developers may argue that, if they provide approved controls when their development is constructed, any additional controls should be imposed on, or at least paid for, by existing development only. At this time, no one knows what additional controls will be required in the approved program plans. The Department believes it would be foolish to commit to developers that the controls imposed by this rule will be all that will ever be required.

5. The Department believes it is likely that the rules as proposed will, in a few cases, cause some developments to be no longer feasible. Developments would be infeasible if the costs of providing stormwater control facilities were excessive or if the systems consumed too much of the area available for development. The Department believes that there are a sufficient number of alternative stormwater systems such that total interference with development will be rare. Nevertheless, they could occur. Should the rules allow for exemptions where development is not found feasible? If an opportunity for exemption is considered appropriate, what should the criteria be? If the Department or Commission is determined the appropriate body for considering an exemption, this could consume substantial resources even if they are rare.

6. The proposed rules do allow an exemption from construction of a stormwater treatment system for a development if an area-wide stormwater control system is proposed. In some cases, an area-wide system may be more efficient use of resources. If both an individual treatment system and an area-wide system are practicable, should the Department hold out for the area-wide

system? The proposed rules would not allow the Department or the local jurisdiction to do this.

7. To what extent should the Department oversee approvals made by the local jurisdiction? At this stage, because of limited resources, the Department would not wish to provide an oversight role. The Department believes it is the local jurisdiction's best interest to assure optimum design, otherwise the jurisdiction will face even more troublesome burdens in trying to achieve their load allocations.