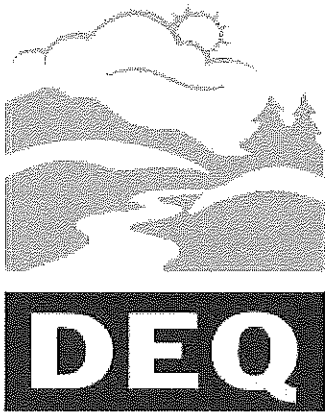
EQCMeeting1of1DOC20010308

OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 03/08/2001



State of Oregon
Department of Environmental Quality

A G E N D A

ENVIRONMENTAL QUALITY COMMISSION MEETING

March 8-9, 2001
Hermiston Community Center
415 South Highway 395
Hermiston, Oregon

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

Public Forum: The Commission will break the meeting at approximately **11:30 a.m. on Friday, March 9, 2001** for the Public Forum if there are people signed up to speak. The Public Forum is an opportunity for citizens to speak to the Commission on environmental issues and concerns not a part of the agenda for this meeting. The public comment period has already closed for the Rule Adoption items and, in accordance with ORS 183.335(13), no comments can be presented to the Commission on those agenda items. Individual presentations will be limited to 5 minutes. The Commission may discontinue this forum after a reasonable time if an exceptionally large number of speakers wish to appear.

The Commission will tour the Umatilla Chemical Storage Facility before the regular meeting

Thursday, March 8, 2001
Beginning at 2:30 p.m.

A. **Informational Item**: Energy and the Environment

B. **Action Item**: Contested Case No. WMC/T-ER-99-107 regarding Dan's Ukiah Service

C. Approval of Minutes

6:30 - 8:30 p.m. Dinner with local officials at the Oxford Suites Hotel

The Environmental Quality Commission will hold an executive session at 8:00 a.m on Friday, March 9, 2001. The session will be to update the Commission on pending litigation involving the Agency and obtaining legal advice from the attorney General's office regarding Measure 7. The executive session is to be held pursuant to ORS 192.660(1)(h). Only representatives of the media can attend but will not be allowed to report on any of the deliberations during the session.

Friday, March 9, 2001
Beginning at 8:30 a.m.

D. **Consideration of Tax Credit Requests**

E. †**Rule Adoption**: Storage and Management of Chemical Agent Munitions and Bulk Items

F. **Informational Item**: Endangered Species Act Coordination Including Proposed Agreement on Water Quality Standards

G. †**Rule Adoption**: Repeal of OAR 340-41-0470(9), The Tualatin Sub-basin Rule for Total Phosphorous and Ammonia

H. †**Rule Adoption**: Revision of the Medford Carbon Monoxide Maintenance Plan and Redesignation Request

I. **Director's Report**

J. **Action Item:** Order Approving the Preliminary Certification on Tax Credit No. 5009-Portland General Electric Company's Independent Spent Fuel Storage Installation at the Trojan Nuclear Power Plant site in Rainier

K. **Informational Item:** Underground Injection Rules

L. **Informational Item:** Report on Persistent Bioaccumulative Toxics (PBTs)

M. **Commissioners' Reports**

†Hearings have already been held on the Rule Adoption items and the public comment period has closed. In accordance with ORS 183.335(13), no comments can be presented by any party to either the Commission or the Department on these items at any time during this meeting.

The Commission has set aside March 30-, 2001, for a special phone meeting. It will be held in Portland, Oregon.

Copies of staff reports for individual 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 503-229-5301, or toll-free 1-800-452-4011. Please specify the agenda item letter when requesting.

If special physical, language or other accommodations are needed for this meeting, please advise the Director's Office, 503-229-5301 (voice)/503-229-6993 (TTY) as soon as possible but at least 48 hours in advance of the meeting.

April 17, 2001

State of Oregon

Department of Environmental Quality Memorandum

Date: February 28, 2001

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item A, EQC Meeting March 8, 2001

Statement of Purpose

The purpose of this presentation is to provide an overview of the environmental issues related to power generation in Oregon and the impending energy shortfalls facing the region. The short and long-term energy supply issues in the Northwest have impact on the Department's Air and Water programs. This item is presented for the Commission's information in preparation for policy decisions that may be brought forward in the future in each of those program areas.

A panel of speakers will present the information for this item. The panel includes:

Jeff King	Northwest Power Planning Council
Wayne Lei	Portland General Electric
Therese Lamb	Bonneville Power Administration
Dave Ponganis	Army Corps of Engineers
Pat Vernon	DEQ Air Quality Program Development Manager
Russell Harding	DEQ Columbia River Coordinator

Panel Discussion:

Introduction by Staff

Jeff King, Northwest Power Planning Council

Mr. King's presentation provides perspective on energy production and use in the Northwest. He describes how hydroelectric production fits into the Northwest's energy portfolio, historical energy use trends for the region and projections for the future. The relationship between the Northwest and Southwest in the overall energy picture is described as well. This will provide context for staff to proceed with environmental issues of concern.

Pat Vernon, Air Quality Staff

The energy production shortages expected for summer 2001 in Oregon cause utilities to seek additional generation for short-term peak needs, and for long term future demand. Pat will discuss the Department's current policy review activities that are aimed at ensuring Oregon's clean air is preserved while being responsive to the urgent need to permit power generation.

Russell Harding, Water Quality Staff

The energy/environmental question for the Water Quality Program is whether the low precipitation and snow pack in the Columbia Basin this year will allow for both energy production and spill for fish passage. Russell will explain the paradox potentially facing the Department - while total dissolved gas (TDG) levels may fall within the State water quality standards this year, conditions may be very bad for in-river fish passage past the dams.

Wayne Lei, Portland General Electric

Mr. Lei will provide information on how electricity load demand is forecast and how the energy market works. PGE's Electricity Exchange Program, aimed at providing additional peak power generation, will be reviewed as well.

Therese Lamb, Bonneville Power Administration

The focus of this presentation is on what can and cannot be done to control spill to within State TDG standards, particularly within the constraints of electricity contracts and transmission system stability. The discussion will also explain how spill for fish fits into uncontrolled spill and electricity generation.

Dave Ponganis, Army Corps of Engineers

Mr. Ponganis will address spill and dissolved gas levels in the Columbia Basin system. His comments will include involuntary and voluntary spills, and spill expectations for 2001.

Conclusion

Staff will conclude the panel remarks and present the panel for questioning by the Commission.

Conclusions

The intersection of energy production and environmental concerns, while thrown into sharp relief this year as a result of the very low hydrologic conditions on the Columbia River, has been largely unexplored by the Commission in the past. Equally acute effects have been seen as high flows, coupled with low or non-existent power markets, have resulted in elevated total dissolved gas levels. The linkage between these two issues is likely to be a feature of northwest public policy for the foreseeable future, notwithstanding this year's extreme conditions.

Permitting new power generating facilities results in new emissions, specifically No_x from natural gas power production. This can impact visibility and ozone. Also, there is potential for particulate and air toxic impacts from diesel generators. The short supply and increasing demand for energy in Oregon has emphasized the need for the Department to be a proactive partner in expeditiously permitting generating facilities while at the same time protecting air quality and visibility in all areas.

Intended future actions

See above. The Commission will be considering a request for a variance to the State's water quality standard for total dissolved gas at its March 30, 2001 meeting.

Department Recommendation

It is recommended that the Commission accept this report, discuss the matter, and provide advice and guidance to the Department as appropriate.

Section: _____

Division: _____

Section: _____

Division: _____

Report Prepared By: Pat Vernon and
Russell Harding

Phone: 503-229-6480/5284

Date Prepared: February 23, 2001

HARDY MYERS
Attorney General

DAVID SCHUMAN
Deputy Attorney General

DEPARTMENT OF JUSTICE
GENERAL COUNSEL DIVISION

January 19, 2001

CERTIFIED MAIL

Daniel Vincent, dba Dan's Ukiah Service
& Doug Vincent
P.O. Box 246
Ukiah Or 97880

RE: Environmental Quality Commission Appeal No. WMC/T-ER-99-107

In response to your telephone request on January 11, 2001, the Environmental Quality Commission delayed deliberation in this case until its next meeting scheduled for March 8 and 9 in Hermiston. If you contact the DEQ's Director's office during the week before the meeting, the Commission's secretary will be able to give you information on the agenda for the meeting. The telephone number is (503) 229-5300.

Please keep in mind that while the Commission does not intend to hear further oral arguments from you or the department at the meeting. Also, I did not receive a response from you to my letter dated December 7, 2000. Accordingly, I am assuming that you do not intend to respond to the Commission's inquiry as set out in that letter.

Sincerely,

Larry Knudsen
Assistant Attorney General
Natural Resources Section

LJK:lan/GEN72829

cc: Stephanie Hallock, Director DEQ
Les Carlough, DEQ

Approved_____
Approved with Corrections____

Minutes are not final until approved by the EQC

Environmental Quality Commission
Minutes of the Two Hundred and Ninety-Second Meeting

January 11-12, 2001
Regular Meeting

On January 11and 12, 2001 the Commission traveled to Bend, Oregon for their regular meeting. On January 11th the Commission toured the Old Mill site and Beaver Coaches. The following Environmental Quality Commission (EQC) members were present.

Melinda Eden, Chair
Tony Van Vliet, Vice Chair
Harvey Bennett, Member
Mark Reeve, Member
Deirdre Malarkey, Member

Also present were Larry Knudsen, Assistant Attorney General, Oregon Department of Justice (DOJ); Stephanie Hallock, Director, Department of Environmental Quality (DEQ); and other staff from DEQ.

Before the regular meeting began, the Commission honored Kitty Purser for her many years of service to the EQC. This was her last Commission meeting.

The regular Commission meeting was called to order by Chair Eden at 3:10 pm. on January 11th. Agenda items were taken in the following order.

E. Action Item: Contested Case No. WMC/T-ER-99-107 Re: Dan's Ukiah Service

Larry Knudsen, legal counsel, indicated the Vincents had requested this item be moved to the March meeting so they could attend the meeting. Commissioner Bennett had listened to the tapes from the December EQC meeting regarding this case, and was prepared to take action on this item when it came before the Commission. After discussion Commissioner Bennett made a motion to set this agenda item over to the March EQC meeting. It was seconded by Commissioner Malarkey and carried with four "yes" votes. Chair Eden voted no. Mr. Knudsen was directed to phone the Vincents and let them know of this action and to remind them they would not be able to testify before the Commission at the March meeting.

A. Informational Item: Chemical Demilitarization Program Update

Wayne C. Thomas, Chemical Demilitarization Program Administrator, provided a brief update to the Commissioners on the status of the Department's Chemical Demilitarization Program. Mr. Thomas discussed the Hazardous Waste Storage and Treatment Permit (HW Permit) for the Umatilla Chemical Agent Disposal Facility (UMCDF) that was issued in February 1997. As of January 11, 2001 the Department has received a total of 101 Permit Modification Requests, of which 88 have been approved and 2 have been denied. The UMCDF is 93% completed.

During 2001, the Department will review the Facility Construction Certification (FCC) documents prepared by an independent engineer. The FCC process is required to verify construction in accordance with the permit requirements for the facility. If equipment is replaced during the operational life of the facility, the Department will require re-certification of the new equipment.

The current Army schedule indicates construction will be completed by May 2001, with thermal testing beginning in October 2001, and Agent operations in July 2002. The Department does not believe the Army and Washington Demilitarization Company will meet this schedule and the schedule will be revised in the near future to reflect thermal testing occuring in Spring 2002, and Agent operations in Winter 2003. In April 2001 the Department will

issue a report of the readiness of the facility to commence operations as measured against the 31-item checklist developed by the Department in April 2000. The Department will continue to assess readiness on a quarterly basis until the facility becomes operational. This assessment will assist the Commission in reaching the final decision as to whether the facility can begin thermal testing and ultimately agent or toxic operations.

The definition of "agent free" as required by the UMCDF HW Permit was discussed. The issue is currently being discussed by the Department and the Permittees. The definition is critical for the Army to use in verification that only wastes that do not contain chemical agents are sent offsite for disposal at a permitted hazardous waste facility. Significant progress has been made and the Department expects a class 2 Permit Modification Request related to "agent free" in April of 2001.

The current status of the on going Chemical Munition Rulemaking was discussed. The Department has concluded that bringing all stockpiled chemical weapons under regulatory authority is necessary for the enforcement of an adequate level of protection of human health and the environment. The Army has provided written comments which appear to be contrary to positions previously engaged by Army personnel. On November 17, 2000 the Department commenced a rulemaking process that will allow the State to regulate all chemical munitions within Oregon as hazardous wastes. A public hearing was held on January 4, 2001 and the public comment period for this rulemaking ended on January 10, 2001. Under the existing regulatory program the Department regulates only the storage of those chemical munitions and bulk containers the Army has declared as hazardous wastes (under RCRA rules, it is the generator of the hazardous material that makes the determination whether or not the material is a "waste"). At UMCD only the M-55 rockets and other leaker munitions (17 percent of the stockpile) have been declared wastes. The remaining munitions are managed under Army regulations in accordance with the Military Munitions Rule (as adopted by Oregon).

At the Commissions request, staff spoke briefly on the status of the Dunnage Incinerator (DUN) and also discussed the different strategies for treatment of secondary waste being tested at the Johnston Atoll Chemical Agent Disposal Facility (JACADS). JACADS is currently testing treatment technologies for carbon, used in the filters, and Demilitarization Protection Ensemble (DPE), used to protect workers while in an agent contaminated area. Department Staff are scheduled to observe these tests.

The Commissioners were updated on the Department's review of the Army's chemical agent monitoring results in response to claims by workers that at the construction site they were exposed to chemical agents during a September 15, 1999 industrial accident. The results of the Department's review did not support the claims of the workers. In conjunction with the Oregon Health Division the Department has requested the Centers for Disease Control (CDC) conduct a review of the effectiveness of the monitoring program at the Depot to protect workers and the surrounding communities. The Department expects a response from CDC in three to four months.

The Chemical Stockpile Emergency Preparedness Program (CSEPP) has made significant progress over the past few months. In December 2000 the Executive Review Panel issued an Interim Report to the Governor, which identified the work that must be completed to reach an adequate level of preparedness. The final report is due to the Governor in June 2001.

B. Action Item: Review of Class 3 Permit Requests for the Umatilla Chemical Depot Facility (UMCDF)

Mr. Thomas introduced Mr. Thomas Beam, Senior Environmental Engineer, of his staff to brief the Commission on the status of the four Class 3 Permit Modification Requests (PMR) currently under review. The EQC has final decision authority on all Class 3 PMR, unless they designate that authority to the Department on a case by case basis. These are the first Class 3 Permit Modification Requests since the 1997 request to add Raytheon Company as a Co-Permittee on the UMCDF HW Permit. The EQC will be making a decision on four PMRs unless they defer the decision authority to the Department. The four PMRs currently under review are "Permitted Storage in J-Block", "Secondary Waste Compliance Schedule", "Dunnage Incinerator and Associated Pollution Abatement System Improvements", and the "Incorporation of 40 CFR 264 Air Emission Standards."

It was recommended the Commission consider deferring the decision authority to the Department for the "Incorporation of 40 CFR 264 Air Emission Standards" Permit Modification Request. This PMR is only being handled as a Class 3 because it incorporates regulations, which were not in effect when the original Permit was issued. It primarily deals with fugitive organic emissions from processing equipment, and only has impacts at UMCDF inside the Munitions Demilitarization Building. This PMR is being processed in parallel to an identical application submitted to the Environmental Protection Agency (EPA) Region X. The EPA will issued a separate

Permit for these regulations, and once Oregon has been delegated authority for these regulations, EPA will terminate their Permit. The Commission discussed the political ramifications associated with the title of the PMR and the Department agreed to change the title to reflect Commission's concerns.

A motion was made by Vice-Chair Van Vliet to delegate final decision authority for the Class 3 PMR "Incorporation of 40 CFR 264 Air Emission Standards" to the Department, while retaining the final decision authority for the other Class 3 PMRs. It was seconded by Commissioner Malarkey and carried with five "yes" votes.

C. Informational Item: Environmental Cleanup Financing Committee Report

Paul Slyman, Division Administrator of Environmental Cleanup Division, described the following DEQ initiatives made to improve the effectiveness of its environmental cleanup programs.

- Created a new headquarters division to focus more attention on environmental cleanup and spill prevention and response. The 2001-03 budget proposes to make this change permanent.
- Formalized the Independent Cleanup Pathway to assist people in cleaning up contaminated property without ongoing DEQ oversight. This successful program provides more flexibility and reduces oversight costs.
- Developed an Alternative Dispute Resolution process, which provides a forum for DEQ and participants in the Independent Cleanup Pathway to resolve contested "No Further Action" determinations.
- Prioritized actions to address program issues identified in an independently conducted survey of cleanup program participants.
- Establish a special Environmental Cleanup Financing Committee to advise DEQ on creative financial solutions to assist and promote cleanup.

D. Approval of Minutes

The following corrections were made to the November 29, 30 and December 1, 2000 minutes: Agenda Item A, the first sentence beginning in line 5 should read "The Proposed Order would ~~dismiss~~ *uphold* ~~the Department Order, finding that Mr. Vincent could not comply or had already satisfactorily complied with the Order. It would also uphold penalties DEQ~~ assessed*ing a penalty* ..." and in in Agenda Item A, last sentence, the words both parties should be replaced with "arguments from the Department and Mr. Vincent." On page 5, first line, affect should be *effect* and under Agenda Item G, third paragraph 3, first line it's should be *its.* A motion was made by Vice-Chair Van Vliet to approve the minutes from the November 29, 30, and December 1, 2000 meeting as corrected. Commissioner Malarkey seconded the motion and it passed with five "yes" votes.

A motion was made by Commissioner Malarkey to approve the minutes from the December 19, 2000 meeting as written. Commissioner Reeve seconded the motion and it carried with five "yes" votes.

The meeting was recessed for the evening at 5:00 p.m. From 6:30 to 8:30 p.m. the Commission met with local officials over dinner at the Deschutes Brewery. On Friday, the Commission began its day with an executive session at 8:00 a.m. This session was to update the Commission on pending litigation involving the Agency. The regular meeting was resumed at 8:40 a.m.

F. Rule Adoption: Air Quality Nuisance Control Rules

Andy Ginsburg, Air Quality Administrator, and Kevin Downing, Air Quality planning staff, presented this item. The rules are part of a larger effort in the air quality program to increase efficiency, and are intended to improve evaluation and response to the approximately 1500 complaints the Department receives each year regarding potential nuisances. The proposed changes include a revised definition of a nuisance, criteria for determining a nuisance and an additional resolution tool called a Best Work Practices Agreement. This Agreement would be a voluntarily signed agreement that outlines specific practices to abate the nuisance. This approach would be a less demanding and easier method of ensuring compliance as compared to traditional enforcement tools.

In regard to how the nuisance rules apply to noise, the Department has not enforced the noise rules since the early 1990s and thus would not be subject to the nuisance rule. However, the Department plans to engage in discussions with local governments regarding the coordination of state and local nuisance programs and noise issues may be raised. When asked how these rules might apply to a cattle feedlots, staff replied that the feedlots are an agricultural operation and are thus exempt from air quality regulation, including nuisance issues. Department field staff has conducted sampling studies to characterize the problem and has used that information to urge the Oregon Department of Agriculture to address the complaints associated with this operation. The Department reported that some residents in NW Portland feel the rule is not stringent enough. This is related to the issue of heightened exposure to air toxics given their proximity to NW Portland industry. The proposed nuisance

rule may never provide the relief they envision because of inherent limitations of a nuisance approach, e.g., the need in a nuisance case to show harm originating back to a source while many toxics are diffuse and the impacts may be expressed only chronically. The 250-micron rule would apply to both permitted and unpermitted sources, but the actual enforcement of the rule would still depend upon enforcement discretion by Department staff to ensure it was effectively applied where there was a compelling problem.

Commissioner Reeve made a motion to adopt the rules as presented in Attachment A and include these rules as an amendment to the State Implementation Plan. Commissioner Malarkey seconded the motion and it carried with five "yes" votes.

G. Informational Item: Remote Sensing of Vehicle Exhaust

Andy Ginsburg, Air Quality Division Administrator; Peter Brewer, Eastern Region Air Quality Manager; and John Head, Bend Clean Air Committee, presented this item. The remote sensing project that occurred in Oregon in 2000 was described, with emphasis on the planning and results of the Central Oregon phase of the project. There were various questions and discussion about the results of the project, and potential future use of such equipment in rural and metropolitan areas of Oregon.

H. Informational Item: Overview of Revisions to Point Source Air Management Rules

Andy Ginsburg, Air Quality Division Administrator; Scott Manzano and Dave Kauth, Air Quality Staff presented this item. The Commission was informed of the rule development history, highlighting stakeholder involvement, and stated the foremost reason for the rulemaking was to simplify the air quality point source permitting program considering most staff time is spent on that activity. The proposal was the centerpiece of other streamlining elements that Air Quality has recently completed.

Five main components of the rulemaking with examples are as follows:

- Permit Restructuring - how more than half of a permitted source will go to simpler general permits.
- Permit Modification - eliminating modification requirements for Plant Site Emissions Limit (PSEL) increases less than the significant emission rate, and adjustments to Baseline.
- Public participation - tiered public involvement relative to the significance of the permitting action.
- Fees and Billing - the change from 75 separate fee categories to 6, and annual fees instead of periodic fees that lead to more difficult budget management.
- Improved Permitting Procedures- including the reduction of unassigned emissions, defining the term adjacent, and developing a sound procedure for determining potential source impacts.

An overview of the public comments received to date was presented and the Department plans to re-open the public comment period to take further comment on 1) reducing unassigned emissions; 2) defining the term "adjacent;" 3) Air Contaminant Discharge Permit (ACDP) Applicability (Table 1); and 4) Ozone Precursor Impact Distance.

Because of the amount of material in the rulemaking proposal, the Commission requested they have an additional week to review the package prior to the May EQC meeting.

J. Informational Item: Briefing on LaPine National On Site Demonstration Project

Mike Llewelyn, Water Quality Division Administrator; Barbara Rich, DEQ Project Coordinator; and Rodney Weick, Water Quality staff, presented the LaPine National On Site Demonstration Project objectives and activities to date. Also discussed were the new technologies selected and installed. The accomplishments in monitoring and modeling pollutant plumes in the ground water by United States Geological Service (USGS) were also presented. This project was done in conjunction with Deschutes County and USGS.

Public Comment: Ray Johnson, City of Redmond Public Works presented public comment.

I. Rule Adoption: Repeal of OAR 340-41-0470(9) The Tualatin Sub-basin Rule for Total Phosphorous and Ammonia

Neil Mullane, Regional Administrator of Northwest Region, and Rob Burkhart, Tualatin Basin Coordinator, presented this item.

This proposal would repeal OAR 340-41-0470(9), effective with EPA approval of the revised Tualatin Subbasin

Total Maximum Daily Load (TMDL) for phosphorus and ammonia OAR 340-41-0470(9) established in 1988 by rule.

The Department proposed to repeal this rule as it is currently recommending the TMDLs be revised. The program requirements that were described by rule are outdated and are now covered under other authorities. When submitted to EPA, the TMDLs are in the form of a Department Order. The Department was going to being submitting revised TMDLs to EPA by the end of January 2001.

The Commission asked if the Department was submitting revised TMDLs to EPA in January, would EPA be able to take action before the next EQC meeting on March 8-9, 2001. The response was that EPA had 30-days to take action on the TMDL so it would be very likely that the Department would know of EPA's action by the next EQC meeting.

The Commission felt it would be better to know if the revised TMDLs were approved prior to repealing the rule. Therefore, motion was made by Commissioner Reeve to defer taking action until the March 8-9, 2001 meeting. It was seconded by Commissioner Bennett and carried with five "yes" votes.

K. Rule Adoption: Amend Tax Credit Rules to Include Nonpoint Source Pollution Control Facilities as an Eligible Facility for Tax Credit Purposes

Helen Lottridge, Management Services Division Administrator; Mike Llewelyn, Water Quality Division Administrator; and Andy Ginsburg, Air Quality Division Administrator, presented this item.

Commissioner Van Vliet asked when the tax credit program is scheduled to sunset. Ms. Lottridge replied the sunset date would be December 31, 2001, without legislative action and if the proposed rule amendments were put in to action if they would only be effective until that date. It was recommended the Environmental Quality Commission adopt the amendments to Division 16 of Chapter 340 of the Oregon Administrative Rules as presented in Agenda Item K—the rules for nonpoint source pollution control tax credit. She added that the proposed amendments would implement enrolled HB 2181 as codified in Oregon Revised Statute 468.155(2). This legislation specifically extends the tax credit program to include nonpoint source pollution controls.

HB 2181 was passed in the 1999 session. Originally the bill was introduced at the request of the Department of Environmental Quality and was intended to eliminate the tax credit for required pollution controls and to implement some incentive tax credits for pollution controls going beyond regulatory requirements. The bill failed early in the session. At the same time, Mr. Joe Hobson Sr. was interested in making tax credits specifically available for nonpoint source pollution control facilities and was able to take HB 2181 and revise it for the purpose of nonpoint source tax credits. Representative Richard Devlin took the lead in amending HB 2181 to include nonpoint source pollution. The Oregon Farm Bureau, the Oregon Cattlemens' Association, the Oregon Wheat League, the Oregon Seed Growers, the Oregonians for Food And Shelter, the Oregon Department of Agriculture, the Governor's Watershed Enhancement Board (GWEB now OWEB), and the Department of Environmental Quality were supportive of the bill. The House Water and Environment, the House Revenue and Senate Rules and Elections committees gave the amended bill a unanimous "do-pass" recommendation. The House passed it 54 -5. The Senate passed it 25-1. Governor Kitzhaber signed the bill on July 21, 1999.

Facilities certified after January 1, 2000 are eligible according to the statute and the applicant has two years to apply for the tax credit. The nonpoint source tax credit would apply to on the ground projects that fall into one or more categories that are specified in the rules. The first category is the State's federally approved nonpoint source control plan, which is a unified plan that meets the requirements of Section 13 of the Clean Water Act. This includes agricultural plans developed in response to the requirements of SB 1010. It also includes Forest Management Practices plans, TMDL implementation plans, groundwater management area action plans, estuary plans, expenditures to supplement a Clean Water Act Section 319 grant project, or any other similar watershed restoration plans approved by a State or Federal Agency. The Executive Summary of DEQ's Non point Source Plan lists all the partnerships. The second category is the Federal Clean Air Act State Implementation Plan for Oregon. Other categories include any pollution control facility effective in reducing nonpoint source pollution supported by research done at Oregon State University, the United States or Oregon Department of Agriculture. Wood-chippers and diesel engine retrofits are also included.

The Department did not elect to enlist an advisory committee to develop the proposed rule because the bill enjoyed widespread support. However, staff did ask for input from the Oregon Department of Agriculture, the Oregon Department of Fish & Wildlife, the Water Resources Department, the Oregon Farm Bureau, the Oregon Department of Transportation, the Oregon Watershed Enhancement Board. After appropriate notice, a public

hearing was held on November 14, 2000. There was no oral testimony at the hearing, but we did receive two written comments, both of which prompted revisions in the rule language.

The proposed rule defines nonpoint source pollution as 'pollution that comes from numerous, diverse or widely scattered sources that together have an adverse effect on the environment.' The definition includes nonpoint source water pollution, and area and mobile sources of air pollution. The statute and the rule did not confine the nonpoint source tax credits to just water quality nonpoint source pollution control facilities.

Commissioner Van Vliet expressed concern with the eligibility of wood-chippers. Wood-chippers were included in the list of eligible facilities as they would reduce the amount of openly burned woody-debris. The purpose of including the wood-chippers was to provide an alternative to communities to open burning. Wood-chippers for the pulp and paper mills would not meet the principal or sole purpose tests. Staff indicated that most of the tax credit applications relating to wood-chippers would be ones the Department initiated while working with communities in pollution prevention projects. Others would be screened out either by the sole purpose test, or they would not provide much financial benefit over the application fee.

Chair Eden asked if there were any estimates of costs for wood-chippers and retrofitting diesel engines. Mr. Ginsburg stated there are many sizes of wood-chippers but that he didn't think there would be many small ones because the application fee is $50 and the chipper was $100. There would need to be a positive tax liability for it to be worthwhile. EPA is encouraging states to do something about the old diesel engine but there are some technical challenges. Most diesel engine retrofits require low-sulfur diesel fuel that is not available in Oregon at this time. He said Oregon is entering into a cooperative agreement with the Puget Sound Clear Air Authority to obtain low-sulfur diesel fuel for a pilot project. This means a fairly limited number of applications at this time.

In HB 2181 discretion was left completely up to the Commission in regards to diesel engine retrofits and wood-shippers. The Department did not analyze this issue in detail, but that the chippers will provide a net environmental benefit, although there would be some emissions from the gasoline-powered chippers. There would be a significantly larger amount of emission reduction by preventing open burning.

Commissioner Reeve asked whether bio-swales and retention ponds would be eligible. His concern is there are hundreds of apartment projects going in all over the metro area that cost around $20,000 to $50,000 per project. Mr. Llewelyn said that many stormwater detention facilities have dual purposes, they are put in primarily for flood control rather than for water quality. The draft rule should help us in that the facility has to be cross-referenced with a water quality plan to make sure that is the purpose of the facility. He said the volume concern is legitimate because municipalities have to deal more and more with stormwater requirements. Many stormwater facilities are driven by a point source requirement not a nonpoint source plan. It will depend on the part of the state we are talking about and what kind of regulatory driver they have.

Commissioner Van Vliet asked if the agency would be criticized if the Commission took no action on these rules. Director Hallock said the agency and the Commission would be criticized because it is no secret how the Commission feels about the tax credit program.

The Commission asked if they had authority to say they would not accept applications past December 31, 2001 for all tax credit applications until they know the results of the sunset. Mr. Knudsen suggested the Commission adopt the rules as proposed but to direct staff to come back to the Commission with a report and recommendation on the issue of the sunset and the period for filing the application. Ms. Lottridge said the Department would report back to the Commission on how the sunset would be implemented.

Commissioner Reeve made a motioned to adopt the rule amendments as proposed. Commissioner Malarkey seconded the motion and it carried with five "yes" votes.

L. Informational Item: Budget Update

Helen Lottridge, Management Services Division Administrator, gave the Commission a report on the budget process for the 2001 legislative session.

M. Commissioners' Reports

There were no Commissioners' reports.

N. Director's Report

DEQ is working with the Governor's office and other agencies to address the emerging energy shortage. The Governor's Natural Resources cabinet met on January 3rd to discuss the issue from the perspective of a variety of agencies. In the near term, it appears that distributed systems - such as small scale emergency generators and medium scale co-generators - may be used to meet peak demand. DEQ's Air Quality Division is working on a strategy to facilitate permitting these systems while protecting air quality. The agency has also had a request from one company for "regulatory relief" from AQ permitting limits of the amount of oil used in boilers. DEQ's Water Quality Division will review water quality issues during license renewal of hydropower facilities.

DEQ and Oregon Department of Forestry have released its peer review draft of the ODF/DEQ Sufficiency Analysis: Stream Temperature. The draft report analyses the current Forest Practices Act rules and its sufficiency in meeting water quality standards for temperature. The Commission received a letter from the Pacific Rivers Council after the EQC/ODF forestry tour expressing concern regarding the evaluation of the Forest Practices Act rules governing water quality standards compliance. The Temperature Sufficiency Analysis process will result in DEQ's evaluation of whether the Forest Practices Act rules need to be revised in order to meet DEQ's temperature standards and/or load allocations driven by the TMDL program.

The Waste Policy Leadership Group has made the following recommendations to DEQ regarding future policy and program directions in solid waste management.

- A legislative proposal that sets new recovery goals for wastesheds and extends the 50% recovery goal to 2009, with an interim goal of 45% by 2005. This proposal also sets waste prevention goals: 0% annual increase in waste generation per capita by 2005 and 0% annual increase in total waste generation by 2009. Finally, the proposal calls for keeping PBT-containing products out of landfills by 2009.
- A product stewardship legislative proposal covering electronics, mercury-containing products and carpet. This proposal creates a stakeholder process to develop goals, strategies and timelines for increasing producer responsibility for the life cycle impacts of these products.
- DEQ should increase its efforts in waste prevention. DEQ should emphasize those waste prevention activities which target the commercial sector and which address toxicity (with particular attention to PBTs) and greenhouse gas emissions, as well as large volumes of material.

DEQ is not introducing legislation on these issues, but others may. There may be opposition to the proposals and interest in spending solid waste tipping fee dollars in other ways.

In August 2000, a DEQ compliance inspection determined that piping at the Jackson Oil bulk plant on US 395 in Canyon City was not in compliance with state release detection requirements. As a result Jackson Oil replaced the entire piping system which was completed in November 2000. That same month gasoline contamination was found in the soil and groundwater at the bulk plant after gasoline fumes forced a resident living next to the bulk plant to be evacuated from his home. One-week later gasoline fumes forced the evacuation of a second residence ½ mile down gradient from the bulk plant. A Unified Command which included DEQ, Canyon City, Grant County, and Jackson Oil was formed to determine the extent and source of gasoline contamination to the soil and groundwater. It was determined that 5,100 gallons of gasoline was released before the faulty piping system was replaced. A gasoline plume currently extends approximately 500 feet north of the bulk plant (toward John Day) impacting a residential and commercial property. The plume is being diluted and dispersed by continuous groundwater flow. No contamination was found in recent air and water samples taken at the down-gradient residence. The resident was returned to her home December 28, 2000. A corrective action plan to address the risk caused by contamination at the bulk plant and the two remaining impacted properties should be completed by February 2001.

Stephanie Hallock will meet with Chuck Findley at EPA Region 10 at the end of January to discuss EPA-DEQ issues.

DEQ has signed a Memorandum of Agreement that sets out roles and responsibilities for how EPA, Oregon, Idaho, and Washington will coordinate development of TMDLs for the Columbia and Snake River mainstems. The MOA provides for EPA to take the lead on developing temperature TMDLs, and for the States to take the lead on total dissolved gas, and other parameters listed on the 303(d) list for the lower river. At the time of the Commission meeting, Oregon, Idaho and EPA have signed the MOA; Washington has not signed.

Director Hallock reported on the following administrative changes:

- Neil Mullane, Regional Administrator for Northwest Region (NWR) will serve as acting Deputy Director upon Lydia Taylor's retirement. Andy Schaedel will serve as acting Regional Administrator for NWR.
- Initial interviews for Lab Administrator will be held in late January and early February.
- Three finalists for the Special Assistant to the Commission & Director will be interviewed on January 23.

The retirement party for Rick Gates and Lydia Taylor, commemorating almost 50 years of combined service to the State of Oregon, will be held on March 1st at the World Trade Center in Portland from 4:30 to 7:30pm. The party will include a "roast" of entertainment and an open microphone. All current and former employees and other colleagues are invited. Tickets are $15.00. Funds will cover food and room rental

There being no further business, the meeting was adjourned at 1:30 p.m.

Environmental Quality Commission

☐Rule Adoption Item
X Action Item
☐Information Item

Agenda Item D
March 9, 2001 Meeting

Title: Tax Credit Applications

Summary: Staff recommends the following actions regarding tax credits:

	Certified Cost	*Value*
Approve		
Pollution Control Facility Tax Credit		
Air (2 applications)	$27,653	$13,827
Field Burning (1 application)	$14,076	$7,038
Solid Waste (2 applications)	$89,820	$44,910
Water (3 applications)	$112,724	$56,362
Approve (8 applications)	$244,273	$122,137

Transfer

Certificate number 4399 from Rexam Graphics, Inc. to Rexam Image Products, Inc.

Reissue

Certificate number 4215 in the amount of $941,815 for three corrosive exhaust scrubbers.

Approve issuance of tax credit certificates for the applications presented in Attachment B. Transfer certificate number 4399 and reissue certificate number 4215 presented in Attachment C.

Maggie Vandehey — Report Author
Division Administrator
Stephanie Hallock — Director

February 15, 2001

†Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503) 229-5317/(503) 229-6993 (TTD).

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

Date: February 22, 2001

To: Environmental Quality Commission

From: Stephanie Hallock, Director

Subject: Agenda Item D, March 9, 2001, EQC Meeting
Tax Credit Application Consideration

Statement of the Need for Action
This staff report presents the staff analysis of Pollution Control Facilities Tax Credit applications and the Department's recommendation for Commission action.

- All applications are summarized in Attachment A of this staff report.
- Applications recommended for Approval are presented in detail in Attachment B.
- Certificates recommended for Transfer or Reissue are presented in detail in Attachment C.

Background APPROVALS: Attachment B
The applications presented for approval in Attachment B:

1. Meet the eligibility requirements for certification as a pollution control facility according to the Pollution Control Facilities Tax Credit regulations.
2. Do not include any facility that replaced a previously certified facility.
3. Do not represent any preliminary applications for the Pollution Control Tax Credit Program.
4. Are organized in application number sequence.

There are eight applications presented for certification; the Department recommends that the Commission certify six of those applications for a facility cost that is less than the claimed facility cost presented on the application. These six are summarized below.

App. No.	Applicant	Media	Claimed Facility Cost	Eligible Facility Cost
5478	TDY Industries, Inc.—Wah Chang	Water	$65,069	$49,033
5503	Smucker Pelleting	Air	$20,816	$18,731
5505	Myrtle Lane Dairy	Water	$45,458	$24,477
5506	Skyport Properties of Oregon	Water	$47,916	$39,214
5520	Western Pulp Products Co.	Solid Waste	$45,159	$45,065
5521	Western Pulp Products Co.	Solid Waste	$46,000	$44,755

Background TRANSFERS and REISSUES– Attachment C
The Department recommends the transfer of certificate number 4399. The Commission issued the certificate on January 1, 2000 to Rexam Graphics, Inc. d.b.a.: Rexam Image Products. Rexam Graphics, Inc. (EIN: 04-3115717) merged into Rexam Image Products, Inc. (EIN: 22-2874352) on July 13, 2000. The applicant notified the Department of this merger in a letter dated January 8, 2001. The transfer request and the original certificate are part of Attachment C.

The Department recommends the Commission reissue certificate number 4215, reducing the amount to $941,815. The Commission certified Intel Corporation's three corrosive exhaust scrubbers, one VOC abatement unit and desorber on 11/18/99 for the facility cost of $1,858,452. Intel Corporation ceased operating the VOC abatement unit and the desorber that amounted to $916,637 of the certified cost. The original certificate and Intel Corporation's notification letter, dated January 10, 2001, are part of Attachment C.

Conclusions

The recommendations for action on the attached applications are consistent with statutory provisions and administrative rules related to the Pollution Control Facilities Tax Credit program.

Recommendation for Commission Action

The Department recommends the Commission approve certification for the tax credit applications as presented in Attachment B of the Department's Staff Report. The Department recommends the Commission transfer certificate number 4399 and reissue certificate number 4215 presented in Attachment C of the Department's Staff Report.

Intended Follow-up Actions

The Department will send original certificates and copies of the Review Reports in Attachment B to applicants as notification of the Environmental Quality Commission's action. Staff will send notification by certified mail to applicants with facilities certified for a cost less than presented on the application. Staff will notify the Department of Revenue of issued, transferred and reissued certificates.

Attachments

A. Summary
B. Approvals
C. Transfers and Reissues

Reference Documents (available upon request)

1. ORS 468.150 through 468.190.
2. OAR 340-016-0005 through 340-016-0050.

Approved:
Section:
Division:

Report Prepared by: Margaret Vandehey
Phone: (503) 229-6878
Date Prepared: February 15, 2001

Attachment A

Summary

Summary
Staff Recommended EQC Action

Recommendation	App.No.	Media	Applicant	Claimed Facility Cost	Certified Cost	Percent Allocable	Value	Commission Action
Approve	5465	Air	Deschutes Brewery, Inc.	$ 8,922	$ 8,922	100%	$ 4,461	
Approve	5478	Water	Teledyne: TDY Industries, Inc.	$ 65,069	$ 49,033	100%	$ 24,517	
Approve	5503	Air	Smucker Pelleting	$ 20,816	$ 18,731	100%	$ 9,366	
Approve	5505	Water	Myrtle Lane Dairy	$ 45,458	$ 24,477	100%	$ 12,239	
Approve	5506	Water	Skyport Properties of Oregon	$ 47,916	$ 39,214	100%	$ 19,607	
Approve	5508	FB	Peter Brentano	$ 14,076	$ 14,076	100%	$ 7,038	
Approve	5520	SW	Western Pulp Products Co.	$ 45,159	$ 45,065	100%	$ 22,533	
Approve	5521	SW	Western Pulp Products Co.	$ 46,000	$ 44,755	100%	$ 22,378	

	Cert. No.							
Transfer	4399	From: To:	Rexam Graphics, Inc., dba Rexam Image Products Rexam Image Products, Inc.					
Reissue	4215	From: To:	Intel Corporation Intel Corporation		$ 1,858,452 $ 941,815			

Attachment B

Approvals

Tax Credit Review Report

EQC 0103

Pollution Control Facility: Air
Final Certification
ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Director's Recommendation: **APPROVE**

Applicant	**Deschutes Brewery, Inc.**
Application No.	**5465**
Facility Cost	**$8,922**
% Allocable	**100%**
Useful Life	**10 years**

Applicant Identification

Organized as: **an S Corporation**
Business: **a Brewery**
Taxpayer ID: **93-0972809**

The applicant's address is:

901 SW Simpson Ave.
Bend, OR 97702

Facility Identification

The certificate will identify the facility as:

A Bin Vent Filter

The applicant is the owner of the facility located at:

901 SW Simpson Ave.
Bend, OR 97702

Technical Information

The claimed facility is a bin vent filter with a capacity of 800 cfm. It is made up of 100 square feet of 16-ounce polyester filter media. The filter housing is approximately 2-1/2 feet wide, 2-1/2 feet deep and 5 feet tall. The housing is mounted on the top of one of two 60,000-pound malt silos. The claimed facility filters malt dust emitted from both silos during bulk malt deliveries capturing approximately 100 pounds of malt during each delivery. The filter is equipped with a reverse jet cleaning mechanism that automatically cleans the dust from the filter media, returning it to the silo for use in the brewing process.

The replaced filter was undersized and allowed emissions to the atmosphere during silo filling. With the new facility, the malt dust is completely contained with no emissions to the atmosphere.

Eligibility

ORS 468.155 (1)(a)(B)	The **sole purpose** of this **new installation of equipment** is to **control** a substantial quantity of air pollution.
OAR 340-016-0060(3)(k)	**Replacement:** The new bin filter is **not** a replacement facility. The old filter was not issued a tax credit certificate.
ORS 468.155 (1)(b)(B)	The control is accomplished by the **elimination of air contaminants** and the use of an air cleaning device as defined in ORS 468A.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

Application Received	**9/5/2000**
Construction Started	**8/1/1999**
Construction Completed	**11/30/1999**
Facility Placed into Operation	**11/30/1999**

Facility Cost

Claimed Cost	**$ 8,922**
Eligible Cost	**$ 8,922**

The facility cost does not exceed $50,000. An independent accounting review was not required. Copies of invoices substantiated the facility cost.

Facility Cost Allocable to Pollution Control

According to ORS.190 (3), the facility cost does not exceed $50,000; therefore the only factor used to determine the percentage of the facility cost allocable to pollution control is the percentage of time the facility is used for pollution control. The percentage of time this facility is used for pollution control is 100%.

Compliance and Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits are issued to the facility.

Other tax credits issued to **Deschutes Brewery, Inc.**:

App. #	Description of Facility	Certified Cost	Cert. #	Issue Date
5159	A wastewater treatment system	$714,103	4356	9/29/2000

Reviewers: Lois L. Payne, P.E., SJO Consulting Engineers, Inc.
Dennis Cartier, Associate, SJO Consulting Engineers, Inc.
Maggie Vandehey, DEQ

Tax Credit Review Report

EQC 0103

Director's Recommendation:	**APPROVE**
Applicant	**TDY Industries, Inc.—Wah Chang**
Application No.	**5478**
Facility Cost	**$49,033**
Percentage Allocable	**100%**
Useful Life	**10 years**

Pollution Control Facility: Water
Final Certification
ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized as: **a C Corporation**
Business: **a zirconium, hafnium, tantalum, titanium, and niobium production plant.**
Taxpayer ID: **95-23-16679-WA**

The applicant's address is:

1600 NE Old Salem Road
Albany, OR 97321-0460

Facility Identification

The certificate will identify the facility as:

Stormwater containment pad with berm for lime slurry tanks

The applicant is the owner of the facility located at:

1600 NE Old Salem Road
Albany, OR 97321-0460

Technical Information

The claimed facility consists of a 1,690 square foot lime containment pad surrounded by a 4 foot berm. The pad is 9 inches thick. The containment area is coated with epoxy. A shut-off valve prevents spills from escaping to surface water.

Two lime slurry tanks, used for waste neutralization, are located up-grade of Truax Creek. Recently one of the lime slury tanks failed, requiring replacement with a new tank. This action negated a granfathered clause in the NPDES stormwater discharge permit. With the installation of the new tank, the new permit requires that all hazardous materials stored in areas that can drain to surface water have a secondary containment (Schedule A.2.b). The EPA's stormwater pollution prevention guidance indicates that the containment should have a capacity of 110% of the largest tank it encloses. The new facility meets this requirement.

Eligibility

ORS 468.155 (1)(a)(A) The **principal purpose** of this **installation** is to prevent, control, or reduce a substantial quantity of water pollution because it is required by DEQ or the federal Environmental Protection Agency.

OAR 340-016-0060(3)(k) **Replacement:** The claimed facility replaced a concrete pad with a 6" berm. The pre-existing pad and berm was not capable of containing the volume of the largest tank resulting in spills over the 6" berm to Truax Creek. The pre-existing containment was not certified as a pollution control facility.

ORS.468.155.(1)(b)(A) The facility disposes of or eliminates industrial waste with the use of **treatment works** for industrial waste as defined in ORS 468B.005.

OAR 340-016-0025 (2)(g) Installation or construction of facilities which will be used to detect, deter, or prevent spills or unauthorized releases.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6). The applicant provided documentation to verify construction completion.

Application Received	**09/08/2000**
Construction Started	**07/16/1998**
Construction Completed	**09/08/1998**
Facility Placed into Operation	**09/08/1998**

Facility Cost

Facility Cost		**$ 65,069**
Ineligible Costs		($16,036)
Demolition of shack in SW corner	($875)	
Pipework—relocation	($2,039)	
Percentage of prep work associated with pipe relocation	($325)	
Pipe bridge supports and pedestals	($3,833)	
Access stairway and ladder—OSHA requirement	($8,964)	
Eligible Facility Cost		**$ 49,033**

The eligible facility cost does not exceed $50,000. An independent accounting review was not required. However, invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost does not exceed $50,000. According to ORS 468.190(3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%.**

Compliance

The facility is in compliance with Department rules and statutes and with EQC orders.
DEQ permits issued to the site:

Waste discharge #87645, issued 9/30/98
Stormwater # 1200-Z: 87645, issued 10/10/97
Title V # 22-0547, issued 8/19/98

Reviewers: Dannelle Aleshire, DEQ
Maggie Vandehey, DEQ

Tax Credit Review Report

EQC 0103

Pollution Control Facility: Air
Final Certification
ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Director's Recommendation:	**APPROVE**
Applicant	**Smucker Pelleting**
Application No.	**5503**
Facility Cost	**$18,731**
Percentage Allocable	**100%**
Useful Life	**10 years**

Applicant Identification

Organized as: **a sole proprietor**
Business: **an agricultural by-products processor**
Taxpayer ID: **541-80-1216**

The applicant's address is:

31545 Harris Dr.
Harrisburg, OR 97446

Facility Identification

The certificate will identify the facility as:

A Carothers & Son, Ltd. primary filter collector

The applicant is the owner of the facility located at:

24023 Powerline Rd.
Harrisburg, OR 97446

Technical Information

The claimed facility is a Carothers & Son, Ltd. 56br10HEI primary bag filter and a cyclone. The bag filter controls emissions from the hammermill in the manufacturing of animal feed pellets from agricultural byproducts. The captured material is recycled back into the manufacturing process.

Eligibility

ORS 468.155 (1)(a)(A) The **principal purpose** of this **new bag filter** is to comply with the applicant's ACDP permit #22-0024 to control air pollution. The primary and most important purpose of the cyclone is for material handling rather than pollution control.

OAR 340-016-0060(3)(k) **Replacement:** The claimed facility replaced a bag filter that had outlived its useful life. The EQC did not issue a certificate for the replaced facility.

ORS 468.155 (1)(b)(B) The **elimination of air contaminants** is accomplished with the installed baghouse, which meets the definition in ORS 468A.005 of an air cleaning device.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

Application Received	**12/04/2000**
Construction Started	**5/1999**
Construction Completed	**6/1999**
Facility Placed into Operation	**7/1999**

Facility Cost

Claimed Facility Cost		**$20,816**
Ineligible Cost		
Cyclone	($2,085)	
Eligible Facility Cost		**$18,731**

The eligible facility cost does not exceed $50,000. An independent accounting review was not required. However, invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost does not exceed $50,000. According to ORS 468.190(3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. The claimed facility is used 100% of the time for pollution control.

Compliance and Other Tax Credits

The applicant claims the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility:

ACDP 22-0024 issued November 6, 2000

No other tax credits have been issued to the applicant.

Reviewers: Maggie Vandehey, DEQ
Dannelle Aleshire, DEQ

Tax Credit Review Report

EQC 0103

Pollution Control Facility: Water
Final Certification
ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Director's Recommendation: **APPROVE**

Applicant	**Myrtle Lane Dairy**
Application No.	**5505**
Eligible Facility Cost	**$24,477**
Percentage Allocable	**100%**
Useful Life	**10 years**

Applicant Identification

Organized as: **a partnership**
Business: **a dairy farm**
Taxpayer ID: **93-1068299**

The applicant's address is:

52831 Old Broadbent Rd.
Myrtle Point, OR 97458

Facility Identification

The certificate will identify the facility as:

Animal Wastewater Management System

The applicant is the owner of the facility located at:
52831 Old Broadbent Rd.
Myrtle Point, OR 97458

Technical Information

The claimed animal waste management system includes:

- roofing over feedlot and silage pit;
- cement curbing and curbed rampways;
- a 133,900-gallon animal waste storage tank;
- a Cornell 50-hp slurry pump, S/N 109149; and
- a Whatcum 30-hp, model 157 agitator.

This waste management system is designed to prevent contamination of local water systems by containing dairy waste runoff. The claimed system allows controlled recycling of animal waste, from 180 dairy cattle, by land application to 200 acres of feed crops.

The covered feedlots and silage pit are completely contained by cement curbing and rampways. The roofing prevents rainwater from washing through animal feed and waste. The cement curbing and rampways contain the waste and allow for the efficient controlled movement of waste into the storage tank. This prevents animal feed and waste from entering the surface and underground water systems.

The 133,900-gallon storage tank allows for adequate storage of animal waste during times of ground saturation. Animal waste is held in the tank and applied in favorable weather and soil conditions.

Eligibility

ORS 468.155 (1)(a)(A) The **principal purpose** of the **animal waste management system** is to control a substantial quantity of water pollution. The system was installed in accordance with the applicant's Animal Waste Management Plan and operates under a Confined Animal Feeding Operation (CAFO) Water Pollution Control Facilities 0800 General Permit issued on October 8, 1990 by the DEQ and managed by the Department of Agriculture.

ORS 468.155 (1)(b)(A) Wastewater Management System: the **prevention** is accomplished by the elimination of industrial waste and the use of **treatment works** for industrial waste as defined in ORS 468B.005.

ORS 468.155 (1)(b)(A) The buried line and hard hose traveler do **not prevent** water pollution by the elimination of industrial waste and the use of **treatment works** for industrial waste as defined in ORS 468B.005. The purpose of the buried line and hard hose traveler is to insure uniform, controlled application of waste to cropland during favorable soil conditions.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

Application Received	**12/11/2000**
Construction Started	**11/12/1991**
Construction Completed	**09/15/1999**
Facility Placed into Operation	**06/15/1999**

Facility Cost

Total Facility Cost		**$107,779**
Government Grant	($57,736)	
Ineligible costs—		
owner's labor	($4,605)	
2,000 feet of 5' - 6' piping	($4,961)	
EHCO 110-950 Frame III Hard Hose Traveler	($16,000)	
Eligible cost		**$ 24,477**

The eligible facility cost does not exceed $50,000. An independent accounting review was not required. Invoices substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost does not exceed $50,000. According to ORS 468.190 (3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%.**

Compliance and Other Tax Credits

The applicant states the facility is in compliance with Department rules and statutes and with EQC orders. DEQ permits issued to facility:

CAFO Permit #0800, ID #106683, issued October 8, 1990.

No other tax credits have been issued to the applicant.

Reviewers: Dannelle Aleshire, DEQ
Maggie Vandehey, DEQ

Tax Credit Review Report

EQC 0103

Director's Recommendation: **APPROVE**

Applicant	**Skyport Properties of Oregon**
Application No.	**5506**
Facility Cost	**$39,214**
Percentage Allocable	**100%**
Useful Life	**10 years**

Pollution Control Facility: Water
Final Certification

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized as: **a Partnership**
Business: **a solid waste recycler**
Taxpayer ID: **93-6052398**

The applicant's address is:

PO Box 2775
Tualatin, OR 97062

Facility Identification

The certificate will identify the facility as:

Stormwater and wastewater management system—a 9' x 14' wash building, 2 catch basins, an oil/water separator, a pump and controls, an oil skimmer, a Stormwater Management Linear StormFilter™ with 4 filter cartridges, and a surge washwater tank.

The applicant is the owner of the facility located at:

5330 NE Skyport Way
Portland, OR 97218

Technical Information

The stormwater and wastewater management system includes:

- a 9' x 14' wash building;
- two catch basins;
- an oil/water separator;
- a pump and associated controls;
- an oil skimmer;
- a Stormwater Management Linear StormFilter™;
- four filter cartridges; and
- a surge washwater tank.

The claimed facility pre-treats stormwater and washwater prior to discharge to the Columbia Slough. The system removes oil and grease, soluble metals, and suspended solids and is capable of pre-treating up to 171.2 cubic feet per hour. The wash water was previously discharged to the storm sewer with only an oil/water separator between the drain and the Columbia Slough.

Eligibility

ORS 468.155 (1)(a)(A) The **principal purpose** of this **installation** is to prevent a substantial quantity of water pollution in compliance with the City of Portland Storm Water Management Code Title 17-38-040.

ORS 468.155 (1)(b)(A) The **prevention** is accomplished with the use of **treatment works** for industrial waste as defined in ORS 468B.005

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

Application Received	**12/18/2000**
Construction Started	**03/01/1999**
Construction Completed	**03/19/1999**
Facility Placed into Operation	**03/29/1999**

Facility Cost

Facility Cost		**$47,916**
Ineligible cost		
Re-routing existing storm lines to accommodate new filter	($8,702)	
Eligible Facility Cost		**$39,214**

The eligible facility cost does not exceed $50,000. An independent accounting review was not required. However, invoices or canceled checks substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost does not exceed $50,000. According to ORS 468.190(3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. The percentage of the facility cost is used for pollution control is 100%.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders.

DEQ permits issued to the site:

City of Portland Storm Water Management Code Title 17-38-040: BLD 98-04178,79,83

Reviewers: Dannelle Aleshire, DEQ
Maggie Vandehey, DEQ

Tax Credit Review Report

EQC 0103

Director's Recommendation:	**APPROVE**
Applicant	**Peter Brentano**
Application No.	**5508**
Facility Cost	**$14,076**
Percentage Allocable	**100%**
Useful Life	**10 years**

Pollution Control Facility: Field Burning
Final Certification
ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized as: **a Sole Proprietor**
Business: **a farm**
Taxpayer ID: **541-68-1799**

The applicant's address is:

4462 Church Ave. NE
St. Paul, OR 97137

Facility Identification

The certificate will identify the facility as:

New Holland Bale Wagon model 1095, serial number 634341

The applicant is the owner of the facility located at:

4462 Church Ave. NE
St. Paul, OR 97137

Technical Information

The applicant **currently owns and leases a total of 1100 acres;** of which 1090 are under perennial grass seed production and 10 are under annual grass seed production. In prior years, the applicant has burned, propaned and baled to remove straw from the field. The source for disposing of the straw requires the straw be removed from the field immediately so it is not damaged. The bale wagon is required for this purpose. If the straw is not baled and disposed of, the applicant would have to resort to burning the straw.

According to the applicant's calculations, as a result of using alternative practices, **all 1100 acres have been removed from being open field burned.**

Eligibility

ORS 468.155 (1)(a)(A) The **principal purpose** of this **new equipment** is to reduce **air pollution** by reducing the maximum acreage to be open-burned in the Willamette Valley in compliance with OAR 340-266-0060 (Acreage Limitations, Allocations).

OAR 340-016-0060 (4)(b)(A) Equipment, facilities, and land for gathering, densifying, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165 (6).

Application Received	**12/28/2000**
Construction Started	**12/29/1998**
Construction Completed	**12/29/1998**
Facility Placed into Operation	**07/1999**

Facility Cost

Claimed Cost	**$14,076**
Eligible Cost	**$14,076**

The eligible facility cost does not exceed $50,000. David F. Buck, CPA provided an independent review on behalf of the applicant. Invoices substantiated the cost of the facility.

Facility Cost Allocable to Pollution Control

The facility cost does not exceed $50,000. According to ORS 468.190(3), the only factor used in determining the percentage allocable to pollution control is the percentage of time the facility is used for pollution control. The percentage of time the facility is used for pollution control is 100%.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There are no DEQ permits issued to the facility.

Other tax credits issued to **Brentano Farms, Inc.**:

App. #	Description of Facility	Certified Cost	Cert. #	Issue Date
4209	Straw Storage Building	$121,852	3307	3/11/1994

Reviewers: Dannelle Aleshire, DEQ
Maggie Vandehey, DEQ
Jim Cramer, ODA

Tax Credit Review Report

EQC 0103

Director's Recommendation: **APPROVE**

Applicant: **Western Pulp Products Co.**
Application No.: **5520**
Facility Cost: **$45,065**
Percentage Allocable: **100%**
Useful Life: **7 years**

Pollution Control Facility: Solid Waste
Final Certification
ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Applicant Identification

Organized as: **an S corporation**
Business: **a molded paper products manufacturer**
Taxpayer ID: **93-0469389**

The applicant's address is:

P O Box 968
Corvallis, OR 97339

Facility Identification

The certificate will identify the facility as:

Asset 12160 - upgrade of #7 molding machine and transfer shaft.

The applicant is the owner of the facility located at:

5025 SW Hout Street
Corvallis, OR 97339

Technical Information

The claimed facility is an upgrade to an Emery semi-automatic pulp molding machine to allow the production of a new product molded from 100% recycled paper. The upgrade includes:

- revision and replacement of drive components, frame members and forming vat;
- installation of new dryer exhaust fan, and
- installation of new drive software.

Eligibility

ORS 468.155 (1)(a)(B) — The **sole purpose** of the molding machine compactor is to prevent, control or reduce a substantial quantity of **solid waste**. This equipment is used for recycling old newspaper into molded paper products.

OAR 340-016-0060(3)(k) — **Replacement:** This redesigned equipment is used to provide a new and expanded service of recycling activities. The new equipment did **not** replace any previously certified equipment.

ORS 468.155 (1)(b)(D) — The equipment is used to process waste newspaper and is part of a **material recovery process** that obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165(6).

Application Received	**01/03/2001**
Construction Started	**05/14/1999**
Construction Completed	**05/11/2000**
Facility Placed into Operation	**05/11/2000**

Facility Cost

Claimed Cost	**$45,159**
Ineligible cost (discounts and tools)	($94)
Eligible Cost	**$45,065**

The facility cost does not exceed $50,000. The applicant provided invoices and canceled checks to substantiate the cost for the claimed equipment. Discounts and purchased equipment used to install the facility are not eligible facility costs as defined in OAR 340-016-0070.

Emery International Developments, LTD, the equipment supplier, and the applicant shared the cost of the facility. The applicant only claimed their portion of the facility cost.

Facility Cost Allocable to Pollution Control

The facility cost does not exceed $50,000; therefore, the only factor used in determining the portion of the claimed facility cost allocable to pollution control is the percentage of time the facility is used for pollution control. The percentage of time the facility is used for pollution control is 100%.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There are no permits required for the claimed facility.

Other tax credits issued to **Western Pulp Products Co.**:

App. #	Description of Facility	Certified Cost	Cert. #	Issue Date
643	Treatment system which provides both primary clarification and secondary aeration to reduce suspended solids and BOD.	$21,585		5/23/1975

Reviewer: William R Bree, DEQ

Tax Credit Review Report

EQC 0103

Pollution Control Facility: Solid Waste
Final Certification
ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0050

Director's Recommendation: **APPROVE**

Applicant: **Western Pulp Products Co.**
Application No.: **5521**
Facility Cost: **$44,755**
Percentage Allocable: **100%**
Useful Life: **7 years**

Applicant Identification

Organized as: **an S corporation**
Business: **a molded paper products manufacturer**
Taxpayer ID: **93-0469389**

The applicant's address is:

P O Box 968
Corvallis, OR 97339

Facility Identification

The certificate will identify the facility as:

Three sets of new molds: Asset #12178 -- 2-bottle forming and transfer molds; Asset #12181 -- 3-bottle transfer mold; and Asset #12183 -- 2-bottle forming and transfer molds.

The applicant is the owner of the facility located at:

5025 SW Hout Street
Corvallis, OR 97339

Technical Information

This application is for molds used to manufacture molded paper products from old newspaper. In the molding process paper pulp is vacuum-formed around one set of molds then transferred by a second set of molds to a drying system and oven.

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of the molds is to prevent, control or reduce a substantial quantity of **solid waste**. This equipment is used for recycling old newspaper into molded paper products.

OAR 340-016-0060(3)(k) **Replacement:** These molds are used to provide new and expanded recyclng activities This is new equipment and did **not** replace any previously certified equipment.

ORS 468.155 (1)(b)(D) The equipment is used to process waste newspaper and is part of a **material recovery process** that obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.

Timeliness of Application

The application was submitted within the timing requirements of ORS 468.165(6).

Application Received	**01/03/2001**
Construction Started	**05/14/1999**
Construction Completed	**09/15/2000**
Facility Placed into Operation	**09/15/2000**

Facility Cost

Facility Cost	**$46,000**
Ineligible cost (discounts)	($1,245)
Eligible Facility Cost	**$44,755**

The facility cost does not exceed $50,000. The applicant provided invoices and canceled checks to document the cost for the claimed equipment. Discounts are not included in eligible facility costs as defined under OAR 340-016-0070.

Facility Cost Allocable to Pollution Control

In accordance with ORS 468.190(3), because the facility cost does not exceed $50,000, the only factor used in determining the portion of the claimed facility cost allocable to pollution control is the percentage of time the facility is used for pollution control. Therefore, the percentage of the facility cost allocable to pollution control is **100%**.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. There are no permits required for the claimed facility.

Other tax credits issued to **Western Pulp Products Co.**:

App. #	Description of Facility	Certified Cost	Cert. #	Issue Date
643	Treatment system which provides both primary clarification and secondary aeration to reduce suspended solids and BOD.	$21,585		5/23/1975

Reviewer: William R Bree, DEQ

Attachment C

Transfers and Reissues

REXAM

REXAM INC
4201 CONGRESS STREET
SUITE 340
CHARLOTTE NC 28209
USA
1 704 551 1500
1 800 289 2800
FAX 1 704 551 1572

January 8, 2001

Department of Environmental Quality
Tax Credit Program
811 SW Sixth Avenue
Portland, OR 97204-1390

RE: Rexam Graphics Inc.
EIN: 04-3115717

Rexam Graphics Inc. (EIN: 04-3115717) was merged into Rexam Image Products Inc. (EIN: 22-2874352) on July 13, 2000. Please see merger statements attached. Also attached is the Pollution Control Facility Certificate issued to Rexam Graphics Inc. on December 1, 2000. We request that you transfer the tax credit of $847,898.00 from Rexam Graphics Inc. to Rexam Image Products Inc.

If you have any questions or need additional information please contact me at 704-551-1500.

Very Truly Yours,

Lisa R. Larmore

Lisa R. Larmore
Vice President Tax

State of Delaware

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"REXAM GRAPHICS INC.", A DELAWARE CORPORATION,

WITH AND INTO "REXAM INDUSTRIES CORP." UNDER THE NAME OF "REXAM IMAGE PRODUCTS INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE THIRTEENTH DAY OF JULY, A.D. 2000, AT 2 O'CLOCK P.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE KENT COUNTY RECORDER OF DEEDS.

Edward J. Freel, Secretary of State

2143142 8100M

001355394

AUTHENTICATION: 0557096

DATE: 07-13-00

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 4399
Date of Issue: 12/1/00
Application No: 5408

ISSUED TO: REXAM Graphics, Inc. dba Rexam Image Products
12238 North Portland Road
Portland, OR 97217

ATTENTION: Jean Gosenheimer, Process Engineer

LOCATION OF POLLUTION CONTROL FACILITY:
12238 North Portland Road
Portland, OR 97217

Operating as the owner of the facility. A C corporation.

DESCRIPTION OF POLLUTION CONTROL FACILITY: **An RTO two chamber thermal oxidizer that maintains a temperature above 1400 degrees fahrenheit.**

TYPE OF POLLUTION CONTROL FACILITY: Air

DATE FACILITY COMPLETED: 12/1/98 PLACED INTO OPERATION: 2/1/99

ACTUAL COST OF POLLUTION CONTROL FACILITY: **$847,898.00**

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: **100%**

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].

Signed: Helen Lottridge (Helen Lottridge, MSD Administrator)

Approved by the Environmental Quality Commission on 12/1/00.

Intel Corporation
5200 N.E. Elam Young Parkway
Hillsboro, OR 97124-6497
(503) 696-8080
www.intel.com

intel®

January 10, 2001

Maggie Vandehey
Tax Credit Program Coordinator
Oregon Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390

Re: Intel D1B Tax Credit Modification
Certificate # 4215

Dear Ms. Vandehey:

The Intel Ronler Acres D1B facility, located in Hillsboro, has undertaken operational modifications which impact the above referenced Pollution Control Tax Credit. Specifically, the facility has ceased operation of its abatement unit for volatile organic compounds (VOC). For this reason, the certificate issued for this credit should be modified accordingly. This reduced credit will be reflected on Intel's 2000 tax year as the system was essentially not operational in 2000.

Enclosed for your reference is Exhibit D from Air Pollution Control Application No. 5139 in which costs for the D1B facilities were originally outlined. This exhibit shows $744,628 in direct expenditures for VOC abatement, and these costs were not altered in the DEQ's review of the application. In addition, there was an indirect (project management) cost of 23.1% of the total facility cost payed to the D1B general contractor which was included in the final credit amount. It is therefore appropriate to reduce the credit amount for the indirect costs associated with the abatement unit as well. Intel proposes adjusting the credit as follows:

Original Allowable Facility Cost	$1,858,452
VOC Abatement Cost	($ 744,628)
23.1% Indirect Cost	($ 172,009)
New Certificate Total	$ 941,815

The original certificate is also enclosed for your reference. A new certificate would be very helpful in preparing Year 2000 Oregon returns, so any action that would process the new certificate by April, 2001 would be greatly appreciated. Once a new certificate is available, it can be directed to our tax department at the following address:

David Slater
Intel Corporation
2200 Mission College Blvd., SC4-206
Santa Clara, Ca. 95052-8119

I appreciate your assistance in this matter. Please call me at (503) 591-4725 if you have any questions.

Sincerely,

Michael Bernard
Intel Corporation

Cc: David Slater, SC4-206, w/o enclosures

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 4215
Date of Issue: 11/18/99
Application No: 5139

ISSUED TO: Intel Corporation and Subsidiaries
2200 Mission College Drive, SC4-26
Santa Clara, CA 95052

ATTENTION: Mike Bernard, Environmental Engineer

LOCATION OF POLLUTION CONTROL FACILITY:
2501 NW 229th Avenue
Hillsboro, OR 97124

Operating as the owner of the facility. A C corporation.

DESCRIPTION OF POLLUTION CONTROL FACILITY: Three corrosive exhaust scrubers, one VOC abatement unit and desorber

TYPE OF POLLUTION CONTROL FACILITY: Air

DATE FACILITY COMPLETED: 4/1/97 PLACED INTO OPERATION: 4/1/97

ACTUAL COST OF POLLUTION CONTROL FACILITY: $1,858,452.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 100%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].

Signed: Melinda S Eden (Melinda S. Eden, Chair)

Approved by the Environmental Quality Commission on 11/18/99.

State of Oregon
Department of Environmental Quality Memorandum

Date: February 16, 2001

To: Environmental Quality Commission

From: Stephanie Hallock, Director

Subject: Agenda Item E, EQC Meeting March 8-9, 2001
RULE ADOPTION -- Storage and Management of Chemical Agent Munitions and Bulk Items

Background

On November 13, 2000, the Director authorized the Department of Environmental Quality's (DEQ or Department) Chemical Demilitarization Program to proceed to a rulemaking hearing on proposed rules which would declare chemical agent munitions and bulk items in Oregon to be a solid and hazardous waste, establish storage and management standards for chemical agent munitions and bulk items, and establish reporting limits and criteria for releases/discharges of chemical agent.

On November 17, 2000, the hearing notice and informational materials were mailed to the Department's mailing list of persons who have asked to be notified of rulemaking actions, and also to a mailing list of persons known by the Department to be potentially affected by or interested in a proposed rulemaking action on the management and storage of chemical agent munitions and bulk items. In addition, an informational postcard summarizing the purpose of the rulemaking, listing the basic changes being proposed, and identifying Department staff to contact for additional information or a copy of the rulemaking proposal was mailed to a separate mailing list of persons known to be interested in general hazardous waste issues. The required hearing notice was published in the Secretary of State's Bulletin on December 1, 2000. Attachment B contains all the required procedural documentation for this rulemaking.

A public hearing was held January 4, 2001 in Hermiston, Oregon to receive oral testimony on the proposed rulemaking action. John Dadoly of the Department's Pendleton office served as Presiding Officer. Written comments on the proposed rulemaking action were accepted through January 10, 2001. The Presiding Officer's report (Attachment C) summarizes the oral testimony presented at the hearing and lists all the written comments submitted at the hearing.

Department staff have reviewed, evaluated and responded to all oral and written comments received (Attachment D). A copy of the extensive comments received from the U. S. Army is included in Attachment E. Copies of all other submitted comments are available upon request. Based upon its evaluation of all the received comments, the Department is recommending changes to the initial proposed rule language. These changes are summarized below and detailed in Attachment F.

Issue this Proposed Rulemaking Action is Intended to Address

The Department does not believe that management requirements for the storage of chemical agent munitions and bulk items in the federal Resource Conservation and Recovery Act (RCRA) regulations are sufficiently protective of human health and the environment.

Adoption of these proposed rules will ensure that chemical agent munitions and bulk items in Oregon are stored and managed in a manner that protects Oregon's citizens and environment from potential releases/spills of chemical agent.

Relationship to Federal and Adjacent State Rules

These proposed rule amendments are more stringent than federal rules for the storage of chemical agent munitions and bulk items. Potential exemptions offered by the federal regulations for facilities storing chemical agent munitions and bulk items are deleted. A more conservative and protective interpretation of federal requirements is proposed than that offered by the United States Environmental Protection Agency (USEPA). None of the other states have chosen to impose more stringent, additional requirements on the storage of chemical agent munitions and bulk items. As required by Oregon Revised Statutes (ORS) 183.332 and Oregon Administrative Rules (OAR) 340-011-0029, the Department addressed the need and justification for state rules differing from federal requirements (Attachment B.5) in the rulemaking proposal sent out for public comment. Additional discussion of the justification for differences with federal requirements is included in the Department's responses to public comments (Attachment D).

Authority to Address the Issue

The Environmental Quality Commission (EQC or Commission) and Department have the statutory authority to address these issues under ORS 466.005, 466.010 to 466.035, 466.605, 466.625 and 466.630.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

The Department did not use an Advisory Committee in the development of this rulemaking proposal. The primary (and only known) facility impacted by these proposed rules is the U. S. Army's Umatilla Chemical Depot. The Department has been engaged in discussions with the Army on these issues for several months to ensure access to all applicable information and a complete understanding of the situation and potential impacts. In October 2000, the Department advised the Chemical Stockpile Emergency Preparedness Program (CSEPP) Executive Review Panel (ERP) of its plans to pursue this rulemaking. The ERP unanimously endorsed the Department's efforts to more closely evaluate and control chemical agent storage and monitoring activities at the Umatilla Chemical Depot. In November 2000, the Department briefed the Oregon Chemical Demilitarization

Citizens Advisory Committee (CDCAC) on the rulemaking effort so that they were aware of what the Department was trying achieve and that there was an opportunity to provide public comment.

The Department considered and evaluated the option of entering into a voluntary agreement with the Army to achieve the desired changes and increase the level of control on the storage and management of chemical agent munitions and bulk items at the Umatilla Chemical Depot. Since a voluntary agreement is not enforceable, and does not allow for public involvement, it is not the best resolution to the Department's concerns. Public input is important since there are very significant potential impacts to the general public. Therefore, a rulemaking process was necessary to fully address the Department's concerns related to storage and management of chemical agent munitions and bulk items, while still allowing sufficient opportunities for the general public to participate in the final solution and express their concerns.

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

In summary, the rulemaking proposal presented for public hearing :

- Declared all chemical agent munitions and bulk items a solid and hazardous waste;
- Established additional operating and design standards for the storage of chemical agent munitions and bulk items under the requirements of 40 CFR 264 Subpart EE, including an operations and management plan to be approved by the Department and the need for a minimum of carbon filtration control technology on units storing nerve agent munitions;
- Eliminated the option of outdoor or open storage areas for chemical agent munitions and bulk items;
- Established a strict interpretation of "no migration" for the release of chemical agent from storage units, and deferred the specific measurement criteria to the aforementioned management plan; and
- Defined the reportable quantities for chemical agent to be "any quantity" for liquid spills/releases and "any detectable concentration" for airborne releases.

The most significant issues addressed by the proposed rulemaking were related to the establishment of more restrictive chemical agent munition and bulk item management standards than those required by federal rules. Under federal requirements, most chemical agent munitions and bulk items are not considered waste until the owner declares them to be so. Therefore, they are not subject to the level of restrictive management required for most hazardous waste, but instead are managed in accordance with Army requirements that may not rise to the same level of control. Another issue was the Department's use of standards such as "no quantity" and "no detectable concentration" in its proposed rules and requirements.

Summary of Significant Public Comment and Changes Proposed in Response

The most substantial comments were those submitted by the U. S. Army. They were not supportive of the proposed rulemaking, instead offering to address the Department's desires for more stringent standards on the management and storage of chemical agent munitions and bulk items through other mechanisms that would eliminate the need for this rulemaking. Their comments raised the following significant questions/concerns:

- lack of Department and Commission authority to designate all chemical agent munitions in storage in Oregon as hazardous waste;
- inadequate justification for regulation above and beyond that already adopted by the State through federal requirements;
- overbroad/vague proposed rule language related to spill reporting and design/operating standards; and
- inadequate evaluation of the pollution prevention and cost impacts associated with the rulemaking proposal.

Comments from all other parties were generally supportive of efforts to better control emissions from chemical agent storage areas, improve monitoring capabilities, and increase spill reporting requirements. They supported the Department's intent to declare all chemical agent munitions and bulk items as solid/hazardous waste, and also supported the proposal to establish specific management and storage requirements/standards, provided the Department does not rely on U. S. Army information to determine what measures are sufficiently protective. Two specific issues raised were 1) whether the Department has authority to define all chemical agent munitions and bulk items as hazardous waste; and 2) whether carbon filtration should be specified as a control technology.

The Department is proposing a number of changes to the rule language in response to public comments. Guidance from the Department of Justice indicates that these changes do not warrant a second public comment period. Declaration of all chemical agent munitions and bulk items as hazardous waste has been narrowed in scope to only those materials currently in storage in Oregon as of the effective date of this rule. Specific mention of the Umatilla Chemical Depot has been deleted to ensure the rules are applicable to all storage of chemical agent munitions and bulk items in Oregon. At this time, the Department believes that the only affected facility is the Umatilla Chemical Depot.

Specific requirements for carbon filtration on nerve agent **storage** units have been deleted and replaced with more generic requirements for vapor containment mechanisms that meet a "no migration" standard. The Department has added a specific due date for submittal of the required storage management plan to ensure better control of the implementation process and timeline. To clarify spill reporting requirements, the definition of "hazardous material" has been revised to include chemical agents, and separate reportable quantity levels for liquid and vapor chemical agent releases have been eliminated in favor of a single level of "any quantity" of chemical agent.

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

The proposed rules will become effective immediately upon Commission adoption and filing with the Secretary of State's office. The proposed rules include a specific date (April 30, 2001) by which affected facilities must submit a storage and operations management plan to the Department for approval. Review and approval of that plan will become the mechanism by which the Department expects to tightly control and enforce expeditious implementation of measures to achieve compliance. The Department expects to approve each facility's management plan within approximately 30-45 days (early June 2001) of submittal. The Department will include a series of conditions with each approval to address deficiencies in the submitted plan, as well as to establish an appropriate, enforceable timeline for implementation. Because of the short timeframes involved with implementation of this rule, the Department plans to issue very specific guidance to each known affected facility outlining the expected content and details of the management plan. This should assist the affected facilities in providing a complete plan in the allowed timeframe.

The Army has been kept informed of the status of this rulemaking effort, and they are currently proceeding with development and evaluation of control mechanisms for each of their storage units. The Department expects to incorporate requirements of this rulemaking and the final approved storage management plan for the Umatilla Chemical Depot, including specific agent monitoring and reporting limits, into the Depot's upcoming hazardous waste storage permit. The Department anticipates that the draft storage permit will be issued for a 45-day (minimum) public comment period sometime in Fall 2001.

Recommendation for Commission Action

The Department recommends that the Commission adopt the rules/rule amendments regarding the storage and management of chemical agent munitions and bulk items as presented in Attachment A.

Attachments

A. Rule Amendments Proposed for Adoption
B. Supporting Procedural Documentation (from Proposed Rulemaking Package):
    1. Notice of Proposed Rulemaking Hearing
    2. Cover Memorandum from Public Notice
    3. Fiscal and Economic Impact Statement
    4. Land Use Evaluation Statement
    5. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements
C. Presiding Officer's Report on Public Hearing
D. Summary and Evaluation of Public Comments Received
E. Comments Received from the U. S. Army Regarding the Proposed Rulemaking
F. Changes to Original Rulemaking Proposal Made in Response to Public Comments

Reference Documents (available upon request)

Written Comments Received (listed at end of memorandum in Attachment D)
Transcript of January 4, 2001 Rulemaking Public Hearing
Umatilla Chemical Depot RCRA Part B Hazardous Waste Storage Permit Application

Approved:

Author: Thomas G. Beam/ Thomas G. Beam

Program: Wayne C. Thomas/ Wayne C. Thomas

Report Prepared By: Thomas G. Beam, P.E.

Phone: (541) 567-8297, ext. 30

Date Prepared: February 16, 2001

Proposed Rule Amendments

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION OF THE STATE OF OREGON

In the Matter of Amending) Proposed Amendments
OAR Chapter 340, Divisions 101, 104 and 108)

1. Rule 340-101-0030 is proposed to be added as follows:

340-101-0030
Chemical Agent Munitions and Chemical Agent Bulk Items
(1) Notwithstanding any otherwise applicable provisions of **40 CFR 260 to 270**, or other provisions of these rules, chemical agent munitions and chemical agent bulk items in storage as of the effective date of this rule are residues, and listed hazardous wastes assigned the appropriate waste codes in OAR 340-102-0011(2)(c)(A)(i) and (ii).
Stat. Auth: ORS 466.005, 466.010 to 466.035, 466.625 & 466.630
Stats. Implemented: ORS 466.205 to 466.225, 466.605 to 466.680, 468.005 to 468.075 & 468.090 to 468.140
Hist.: DEQ xx-xxx, f. & cert. ef. x-xx-xx

2. Rule 340-104-1201 is proposed to be added as follows:

340-104-1201
Design and Operating Standards
(1) The following provisions are added to and made part of the design and operating standards in **40 CFR 264 Subpart EE** for units used for the storage of chemical agent munitions and chemical agent bulk items:
(a) No later than April 30, 2001, a storage unit operations and management plan, including a description of applicable vapor and liquid chemical agent containment mechanisms, and monitoring/inspection programs, must be submitted to the Department for approval; and
(b) Storage units used for the storage of nerve agent (such as GB and VX) must be equipped with vapor containment mechanisms.
(2) The provisions of **40 CFR 264.1201(b)(3)** are deleted for purposes of storage of chemical agent munitions and chemical agent bulk items.
(3) As used in **40 CFR 264.1201(f)** for purposes of storage of chemical agent munitions and chemical agent bulk items, "no migration" of chemical agent from the storage unit shall mean:

(a) No detectable concentration of chemical agent outside the containment mechanisms of the storage unit, as measured by sampling and analytical methods specified in the approved management plan of OAR 340-104-1201(1)(a).
Stat. Auth: ORS 466.010 to 466.035, 466.625 & 466.630
Stats. Implemented: ORS 466.205 to 466.225, 466.605 to 466.680, 468.005 to 468.075 & 468.090 to 468.140
Hist.: DEQ xx-xxx, f. & cert. ef. x-xx-xx

3. Rule 340-108-0002 is proposed to be amended as follows:

340-108-0002
Definitions
As used in this division unless otherwise specified:
(1) "Barrel" means 42 U.S. gallons of oil at 60 degrees Fahrenheit.
(2) "Cleanup" includes, but is not limited to, the containment, collection, removal, treatment or disposal of oil or hazardous material; site restoration; and any investigation, monitoring, surveys, testing and other information gathering required or conducted by the Department.
(3) "Cleanup Costs" means all costs associated with the cleanup of a spill or release or threatened spill or release incurred by the state, its political subdivision or any person with written approval from the Department when implementing ORS 466.205, 466.605 to 466.690, 466.880 (3) and (4) and 466.995 (3) or 468.800.
(4) "Commission" means the Environmental Quality Commission.
(5) "Contingency Plan" means a document setting out an organized, planned and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment and is prepared pursuant to **40 CFR Part 264- Subpart D or Part 265- Subpart D**.
(6) "Department" means the Department of Environmental Quality.
(7) "Director" means the Director of the Department of Environmental Quality.
(8) "Having Control Over Any Oil or Hazardous Material" includes, but is not limited to, persons using, handling, processing, manufacturing, storing, treating, disposing or transporting oil or hazardous material.
(9) "Hazardous Material" means:
(a) Radioactive Waste and material as defined in ORS 469.300 and 469.530;
(b) Substances and wastes listed in **40 CFR Part 302 -- Table 302.4** (List of Hazardous Substances and Reportable Quantities) and amendments, adopted prior to May 1, 1987~~.~~; and
(c) Chemical agents (such as nerve agents GB and VX, blister agent HD, etc.).
(10) "Modified Spill Prevention Control and Countermeasure (SPCC) Plan" means the plan to prevent the spill of oil from a non-transportation related facility that has been modified to include those hazardous substances and hazardous wastes handled at the facility.
(11) "Oil" includes gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil refuse and any other petroleum related product.
(12) "Person" includes, but is not limited to, an individual, trust, firm, joint stock company, corporation, partnership, association, municipal corporation, political subdivision, interstate

body, the state and any agency or commission thereof and the Federal Government and any agency thereof.
(13) "Reportable Quantity" is an amount of oil or hazardous material which if spilled or released, or threatens to spill or release, in quantities equal to or greater than those specified in OAR 340-108-0010 must be reported pursuant to OAR 340-108-0020.
(14) "SPCC" means Spill Prevention, Control and Countermeasures Plan prepared in accordance with **Title 40 Code of Federal Regulations - Part 112 or Part 1510**.
(15) "Spill or Release" means the discharge, deposit, injection, dumping, spilling, emitting, releasing, leaking or placing of any oil or hazardous material into the air or into or on any land or waters of the state, as defined in ORS 468.700, except as authorized by a permit issued under ORS Chapter 454, 459, 468 or 469, ORS 466.005 to 466.385, 466.880 (1) and (2), 466.890 and 466.995 (1) and (2) or federal law or while being stored or used for its intended purpose.
(16) "Threatened Spill or Release" means circumstances or events exist that indicate a spill or release of oil or hazardous material is likely and iminent.
(17) "Waters of the State" means lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or undergound waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.
[ED. NOTE: The Appendix 1 and publications referenced in these rules are not printed in the Oregon Administrative Rules Compilation. Copies may be obtained through the Waste Management and Cleanup Division of the agency]
Stat. Auth: ORS Ch. 183, 459, 466 & 468
Stats. Implemented: ORS 466.605 & 466.630
Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86; DEQ 2-1987(Temp), f. & ef. 1-30-87; DEQ 15-1987, f. & ef. 7-28-87; DEQ xx-xxxx, f & cert. ef. x-xx-xx

4. Rule 340-108-0010 is proposed to be amended as follows:

340-108-0010
Reportable Quantities
(1) Reportable quantity means:
(a) Any quantity of radioactive material, or radioactive waste;
(b) If spilled into waters of the state, or escape into waters of the state is likely, any quantity of oil that would produce a visible oily slick, oily solids, or coat aquatic life, habitat or property with oil, but excluding normal discharges from properly operating marine engines;
(c) If spilled on the surface of the land, any quantity of oil over one barrel (42 gallons); ~~and~~
(d) An amount equal to or greater than the quantity listed in **40 CFR Part 302 -- Table 302.4** (List of Hazardous Substances and Reportable Quantities) and amendments adopted prior to May 1, 1987~~.~~;
(e)~~(A) One (1) pound of nerve agents (such as GB (Sarin) or VX) if spilled or released on site;~~Any quantity of chemical agent (such as nerve agents GB or VX, blister agent HD, etc.); and

~~(B) Any quantity of nerve agents such as GB (Sarin) or VX if spilled or released off-site;~~
~~(C) An ambient air concentration for nerve agents monitored at the chemical storage perimeter or depot perimeter which is equal to or greater than 3 X 10^{-6} mg/m^3 for GB and VX; or~~
~~(D) An ambient air concentration for nerve agents monitored at or near a point of release equal to or greater than 2 X 10^{-2} mg/m^3 GB or 4 X 10^{-2} mg/m^3 VX. (i.e igloo monitoring).~~
(f) One (1) pound (0.454 kg) of pesticide residue as defined by 340-101-0033(5)(a).
(2) Spills or releases of mixtures or solutions containing any of the hazardous materials listed in **40 CFR Part 302 -- Table 302.4** (List of Hazardous Substances and Reportable Quantities) and amendments adopted prior to May 1, 1987 are subject to the reporting requirements of this rule if the total quantity of all the hazardous materials in the mixture or solution (in pounds) exceeds the lowest reportable quantity referenced in subsection (1)(d) of this rule for any one of the hazardous materials in the mixture or solution. A person may rely upon actual knowledge and readily available information such as material safety data sheets, shipping papers, hazardous waste manifests and container labels, to determine the presence and concentration of hazardous materials in a mixture or solution.
(3) The quantity determination required by section (1) of this rule shall be the quantity of oil or hazardous material spilled or released prior to contact or mixing with any other material or substance (i.e., with soil, water, sawdust, etc.). In the case of a threatened spill or release, it shall be the amount of oil or hazardous material in the container or tank from which a spill or release is likely and imminent.
[ED. NOTE: The Appendix 1 and publications referenced in these rules are not printed in the Oregon Administrative Rules Compilation. Copies may be obtained through the agency.]
Stat. Auth: ORS 183, ORS 459, ORS 466 & ORS 468
Stats. Implemented: ORS 466.625 & ORS 466.630
Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86; DEQ 2-1987(Temp), f. & ef. 1-30-87; DEQ 15-1987, f. & ef. 7-28-87; DEQ xx-xxxx, f. & cert. ef. x-xx-xx

Secretary of State

NOTICE OF PROPOSED RULEMAKING HEARING

A Statement of Need and Fiscal Impact accompanies this form.

DEQ – Office of the Director
Agency and Division

Chapter 340
Administrative Rules Chapter Number

Susan M. Greco
Rules Coordinator

(503) 229-5213
Telephone

811 S.W. 6th Avenue, Portland, OR 97213
Address

The Public Hearing is scheduled for January 4, 2001 at 7:00 pm in Conference Room #2 of the Good Shepherd Medical Center, 610 NW 11th Street, Hermiston, Oregon 97838. John Dadoly will be the Hearings Officer.

Auxiliary aids for persons with disabilities are available upon advance request.

RULEMAKING ACTION

ADOPT: Rules 340-101-0030 and 340-104-1201

AMEND: Rule 340-108-0010

REPEAL: None

Statutory Authority:	ORS 465.009, 465.200, 465.205, 465.400, 465.405, 466.010 to 466.035, 466.625 and 466.630.
Statutes Implemented:	ORS 466.005 to 466.225, 466.605 to 466.680, 468.005 to 468.075, and 468.090 to 468.140.

RULE SUMMARY

Adopt new state-only hazardous waste rules declaring all chemical agent munitions and bulk items to be a solid/hazardous waste in Oregon, and establishing specific waste management standards for the storage of chemical agent munitions and bulk items. Amend current state rules to revise chemical agent reportable quantities to reflect current spill/release notification practices. The primary purpose of these proposed rule additions/changes is to provide the Oregon Department of Environmental Quality with the necessary regulatory authority and control to ensure that storage and management of chemical agent munitions and bulk items at the Umatilla Chemical Depot is performed in a manner that is adequately protective of Oregon's citizens and environment.

January 10, 2001 at 5:00pm PST
Last Day for Public Comment

[electronic copy-signed original on file]
Authorized Signer and Date

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

Date: November 17, 2000

To: Interested and Affected Public

Subject: Rulemaking Proposal and Rulemaking Statements - Adoption of Rules for the Storage and Management of Chemical Agent Munitions and Bulk Items

This memorandum contains information on a proposal by the Department of Environmental Quality (Department or DEQ) to adopt new rules/rule amendments regarding the storage of chemical agent munitions and bulk items at the Umatilla Chemical Depot (UMCD). Pursuant to ORS 183.335, this memorandum also provides information about the Environmental Quality Commission's intended action to adopt a rule.

The Department believes that all chemical agent munitions and bulk items are hazardous waste and should be regulated and managed in a manner consistent with hazardous waste management regulations and the risk they represent to the citizens and environment of Oregon. The proposed rulemaking will designate all chemical agent munitions and bulk items in Oregon as solid/hazardous waste, establish specific management standards, and provide the Department with the necessary regulatory authority to require the U. S. Army to implement enhanced management practices that ensure adequate protection of human health and the environment from all potential chemical agent releases/discharges. Under current federal requirements, the Department has authority to regulate only a portion of the stored chemical agent munitions and bulk items. The U. S. Army is currently allowed to classify the remainder as non-waste product and manage in accordance with its own storage program, which is not subject to approval by the Department.

The Department has the statutory authority under Oregon Revised Statutes (ORS) 465.009, 465.200, 465.205, 465.400, 465.405, 466.010 to 466.035, 466.625 and 466.630. These rules will assist the Department in better implementing and enforcing the requirements of ORS 466.005 to 466.225, 466.605 to 466.680, 468.005 to 468.075, and 468.090 to 468.140.

What's in this Package?

Attachments to this memorandum provide details on the proposal as follows:

Attachment A Fiscal and Economic Impact Statement (describing the fiscal and economic impact of the proposed rule, as required by ORS 183.335)

Attachment B	Land Use Evaluation Statement (providing assurance that the proposed rules are consistent with statewide land use goals and compatible with local land use plans).
Attachment C	Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.
Attachment D	Proposed Rule Revisions (actual proposed language changes).

Public Hearing and Comment Process Details

The Department is conducting a public hearing on this proposal at which comments will be accepted either orally or in writing. The hearing will be held as follows:

Date: January 4, 2001
Time: 7:00 pm
Place: Conference Room #2
Good Shepherd Medical Center
610 NW 11th Street
Hermiston, Oregon

John Dadoly from DEQ's Pendleton office is scheduled to be the Presiding Officer at the hearing.

Deadline for Submittal of Written Comments: January 10, 2001 at 5:00pm PST.

Written comments can be presented at the hearing or to the Department any time prior to the date above. Comments should be sent to:

Department of Environmental Quality
Chemical Demilitarization Program
Attn: Thomas G. Beam
256 E. Hurlburt Ave., Suite 105
Hermiston, Oregon 97838
FAX (541) 567-4741
E-mail: beam.tom@deq.state.or.us

In accordance with ORS 183.335(13), no comments from any party can be accepted after the deadline for submission of comments has passed. Thus if you wish for your comments to be considered by the Department in the development of these rules, your comments must be received prior to the close of the comment period.

What Happens After the Public Comment Period Closes?

Following closure of the public comment period, the Presiding Officer at the public hearing will prepare a report which summarizes the oral comments presented and identifies written comments submitted at the hearing. The Environmental Quality Commission (EQC) will receive a copy of the Presiding Officer's report. The Department will summarize and respond to all comments received during the public comment period.

The Department will then further review and evaluate the rulemaking proposal, taking into account all information received during the comment period. Following the review, the Department may present the rules to the EQC as originally proposed, or with modifications made in response to public comments received.

The EQC will consider the Department's recommendation for rule adoption during one of its regularly scheduled public meetings. The targeted meeting date for consideration of this rulemaking proposal is **March 8-9, 2001** at a location still to be determined. This date may be delayed, if necessary, to provide additional time for evaluation and response to comments received in the public hearing and comment process.

You will be notified of the time and place for final EQC consideration of this rulemaking proposal if you present oral comments at the hearing or submit written comments during the comment period. Otherwise, if you wish to be kept advised of this proceeding, you should request that your name be placed on the mailing list.

Background on Development of the Rulemaking Proposal

All chemical agent munitions and bulk items held in storage at the Umatilla Chemical Depot (UMCD) near Hermiston in eastern Oregon are destined for destruction by incineration in the Umatilla Chemical Agent Disposal Facility (UMCDF) being built for that purpose at the UMCD. Munitions (contain explosives and/or propellants) and bulk items (without explosives and/or propellants) in storage awaiting destruction include rockets, projectiles, mines, bombs, spray tanks and "ton containers," which together contain approximately 3700 tons of chemical agent (nerve agents VX and GB [Sarin], and blister agent HD [mustard]).

Current requirements and standards applicable to the management of hazardous waste chemical agent munitions and bulk items were promulgated in February 1997 by the Environmental Protection Agency (EPA) in what is commonly referred to as the Military Munitions Rule (MMR). Key aspects of this rule were incorporated into the federal hazardous waste regulations, 40 CFR 264/265 Subpart EE "Hazardous Waste Munitions and Explosives Storage" and 40 CFR 266 Subpart M "Military Munitions."

Why is there a need for these rules?

In accordance with the applicable provisions of the MMR (40 CFR 266.202), the U. S. Army considers all chemical agent munitions and bulk items in storage, except the rockets and identified

leaking munitions, to be non-waste product not subject to regulatory oversight by the Department. The rockets and leaking chemical munitions that the U. S. Army has declared to be waste munitions do fall under Department regulatory authority. This accounts for only about 50 percent of the total number of munitions/bulk items and only about 16 percent by total weight of chemical agent currently stored at UMCD. Although current MMR language allows the U. S. Army to classify the remaining chemical agent munitions and bulk items as product, it is currently illegal to use or make them, and they have been specifically targeted for destruction in the UMCDF incinerators. Without the special provisions of the MMR, these munitions and bulk items would be considered a solid/hazarous waste under the applicable provisions of 40 CFR 261 and OAR Chapter 340, Divisions 100, 101 and 102. The Department believes that all chemical agent munitions and bulk items should be classified as hazardous waste to ensure they are managed in a manner which is adequately protective of Oregon's citizens and environment.

In addition to its concern that many of the chemical agent munitions and bulk items at UMCD are not currently classified as hazardous waste, the Department also believes that existing U. S. Army management practices are not sufficiently protective of human health and the environment. The Department believes that current management practices could result in unacceptable releases of chemical agent to the environment through open drains and vents. The Department considers such releases to be inconsistent with its mandate to provide appropriate protection of human health and the environment. It is also inconsistent with the requirements of 40 CFR 264.1201(f) for management practices that "...ensure that there is no migration of contaminants out of the unit."

The U. S. Army believes that its current management program for the chemical agent munitions and bulk items provides adequate protection of human health and the environment, and is in compliance with all applicable storage regulations. The current management program at UMCD relies heavily on periodic inspection and monitoring activities, which are intended to provide leak detection and response in a time frame that the Army considers sufficient. The Army considers agent releases that occur prior to detection to be minor or insignificant. This approach, which accepts minimal releases as insignificant, is consistent with both U. S. Army storage regulations and EPA's own interpretation of the MMR. The Department disagrees that any release of chemical agent can be considered insignificant and believes that the "no migration" standard of 40 CFR 264.1201(f) should be strictly enforced through the establishment of additional state-only waste management standards.

Finally, OAR 340-108-0010 identifies reportable quantities for spills/releases of the nerve agents (GB and VX). The current regulations establish one pound as the reportable quantity for on-site spills/releases, and any quantity in the case of off-site spills/releases. There are also concentration limits established for ambient air concentrations at the boundary of the UMCD and near the actual storage units. This is in conflict with the Department's current expectation that any spill or release of chemical agent, and/or any detection of chemical agent concentration in the ambient air at UMCD/UMCDF, will be reported to the Department. Therefore, it is necessary to revise state rules to eliminate this inconsistency.

How were these rules developed?
Since only U. S. Army operations at the Umatilla Chemical Depot will be impacted by the proposed changes, an advisory committee was not formed and used in the development of these proposed rules. The Department has been engaged in discussions with the Army on these issues for several months to ensure an adequate understanding of current UMCD practices and storage programs.

Primary documents used to develop these rules include the federal rules, the U. S. Army's hazardous waste storage permit application, and Department memoranda, policy papers and regulatory analyses. Copies of the documents relied upon in the development of this rulemaking proposal can be reviewed at the Department of Environmental Quality's Hermiston office at 256 E. Hurlburt Avenue, Suite 105, Hermiston, Oregon. Please contact Trisha Kirk at (541) 567-8297, ext. 25 for times when the documents are available for review.

Whom do these rules affect and how do they affect these groups?
These rules will affect only the U. S. Army operations at the Umatilla Chemical Depot. As a result of these rules, the Army will be required to manage all chemical agent munitions and bulk items at UMCD as hazardous waste. The rules will require the installation of adequate containment mechanisms on all drains and vents from the storage units to prevent releases of chemical agent to the environment during storage activities. The U. S. Army will also have to gain Department approval for their overall management plan for chemical agent munitions and bulk items at UMCD.

How will these rules be implemented?
These rules will be implemented primarily through the use of specific requirements that will be included in the Hazardous Waste (HW) Storage Permit that the Department will prepare after it has completed its review of the Army's permit application. The HW Storage Permit will address the storage of chemical agent munitions and bulk items, along with the storage of miscellaneous hazardous wastes generated from the management of the chemical agent at the Umatilla Chemical Depot. The Department expects that the proposed rules will become effective in March 2001, while the final HW Storage Permit will not be issued until later in 2001. The Department expects to enter into an interim Mutual Agreement and Order (MAO) with the U. S. Army to bridge the timeframe from the date the rules become effective until either the final HW Storage Permit is issued or the U. S. Army completes the changes necessary to come into compliance with the new rules. Prior to issuance of a final hazardous waste storage permit for UMCD, the public will have an opportunity to provide comment on the draft storage permit prepared by the Department.

Contact for More Information

If you would like more information on this rulemaking proposal or would like to be added to the mailing list, please contact:

Trisha Kirk, Public Information Specialist
Department of Environmental Quality
Chemical Demilitarization Program
256 E. Hurlburt Ave., Suite 105
Hermiston, Oregon 97838
(541) 567-8297, ext. 25
E-mail: kirk.trisha@deq.state.or.us

This publication is available in alternate format (e.g. large print, Braille) upon request. Please contact Trisha Kirk of DEQ's Hermiston Office 541-567-8297, ext. 25 to request an alternate format.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
For
Adoption of Rules for the Storage and Management of Chemical Agent Munitions and Bulk Items

FISCAL AND ECONOMIC IMPACT STATEMENT

Introduction

Under current federal hazardous waste rules, only a portion of all chemical agent munitions and bulk items at the Umatilla Chemical Depot (UMCD) are considered to be waste and subject to DEQ regulatory authority. In addition, these wastes are not managed in a manner which provides the best possible level of protection of human health and the environment. The proposed rules will define all chemical agent munitions and bulk items as a state-listed hazardous waste, and then establish specific management standards for the permitted storage units that this material is stored in. Finally, the reportable quantities for chemical agent will be revised to reflect that any spill/release of chemical agent represents a reportable quantity subject to proper notification.

In summary, these rule changes should not have any impact other than on the chemical agent munition and bulk item storage operations by the U. S. Army at the Umatilla Chemical Depot, and the corresponding oversight activities of the Department's Chemical Demilitarization Program (CDP) in Hermiston, Oregon. Specific fiscal and economic impacts are discussed in more detail in subsequent sections of this document. In general, the Army will be required to implement additional management program features and install additional infrastructure (containment mechanisms) to its storage units. The Department will need to incorporate additional compliance and enforcement components into the CDP. Actual, quantifiable fiscal impacts have not been provided in most cases, as that information is difficult to determine at this time. Where possible, order of magnitude estimates have been provided.

General Public

There are no direct fiscal or economic impacts on the general public resulting from the adoption of hazardous waste rules that define chemical agent munitions/bulk items as hazardous waste, establish more protective management standards for those munitions/bulk items, and decrease reportable quantity levels for chemical agents. Indirectly, the general public will benefit from the increased regulatory control, enhanced management standards and more restrictive reporting limits that provide a higher level of protection.

Small Business

There are no direct fiscal or economic impacts on small businesses resulting from the adoption of hazardous waste rules that define chemical agent munitions/bulk items as hazardous waste, establish more protective management standards for those munitions/bulk items, and decrease reportable quantity levels for chemical agents.

Large Business (Federal Agency)

The only large business that is impacted in a fiscal or economic manner by the adoption of these rules is the U. S. Army (and its contractors) operating at the Umatilla Chemical Depot. Adoption of these rules will result in the Army having approximately double the quantity of hazardous waste munitions/bulk items to properly store in permitted storage units. The Army will have to revise its current hazardous waste storage permit application to include approximately double the number of storage units it is seeking to permit. There will be some incremental cost to make these revisions to permitting documentation, but it is early in the permitting process and it is believed that these revisions can be captured as part of already anticipated updates to the permit application. With twice as many permitted storage units, the Army will experience incremental increases in operating and maintenance costs to manage those storage units. There will also be additional recordkeeping costs associated with this management. It is not possible at this time to estimate what the actual cost impacts for these changes will be, because the Army has not yet prepared any revised management plans for Department approval. This will done as part of the permitting process. In accordance with current Army procedures, the UMCD does already perform periodic inspection and monitoring activities on all munitions/bulk items storage areas, even those which are not currently considered waste storage areas. Therefore, although it is reasonable to assume that there will be some incremental cost involved with revisions to the inspection/monitoring procedure, it is not expected to be significant. This will be determined once the Army has completed preparation of its management plan for Department approval.

The primary fiscal/economic impact to the U. S. Army will be the up-front capital expenditures which will be necessary to design, procure and install approved containment mechanisms on the open drains and vents of the storage units. For the drain plugs which the Army has developed, it is estimated that costs for all storage units will be on the order of $50,000-$100,000 for initial installation, with undetermined annual maintenance costs. For the vent filters/containment mechanisms, the Army has not completed its design efforts. However, based on preliminary discussions concerning some of the options being considered, it is estimated that the initial costs would be on the order of $2,000,000-$3,000,000 with undetermined annual maintenance costs.

The potential additional reporting and notification costs associated with the decreased chemical agent reportable quantities should not be significant. The proposed changes are consistent with current Army practices and notification procedures, and should not require additional staffing.

Another potential fiscal impact on the U. S. Army resulting from adoption of these rule changes is discussed in the next section on Local Governments.

Local Governments

The Department does not believe that there are any direct fiscal or economic impacts on local governments resulting from the adoption of hazardous waste rules that define chemical agent munitions/bulk items as hazardous waste, establish more protective management standards for those munitions/bulk items, and decrease reportable quantity levels for chemical agents. One peripheral, but potential, impact relates to Morrow County's ongoing efforts to assess and collect hazardous waste storage fees from the Umatilla Chemical Depot for storage of hazardous waste within the county boundaries. Adoption of these rules will classify larger quantities of materials which are stored at the Umatilla Chemical Depot in Morrow County as hazardous waste. If Morrow County were to eventually be successful in their efforts to assess and collect hazardous waste storage fees from the U. S. Army for operations at the Umatilla Chemical Depot, the adoption of these rule changes could increase the amount of revenue to the County from those fees. Conversely, this would potentially represent an additional cost to the U. S. Army.

State Agencies

Adoption of these rule changes will approximately double the quantity of stored hazardous waste (and permitted storage units) at the Umatilla Chemical Depot and will require actual physical changes to the configuration of the storage units. This will require the Department to revise its inspection and compliance program at the UMCD to account for the additional permitted storage. The Department will also need to provide additional processing of permitting documentation and approval of waste management plans. Although the proposed rule changes will result in additional scope of work for Chemical Demilitarization Program (CDP) staff, it is not expected that there will be any fiscal/economic impact to the Department. No incremental expenses will be incurred and no additional staff will be needed to implement these changes. The additional workload will be incorporated into current work assignments and handled by existing CDP staff. The Department's Chemical Demilitarization Program is funded entirely by the Army in accordance with a cooperative agreement between the Department and the U. S. Army. The CDP is devoted exclusively to the management and oversight of issues at the Umatilla Chemical Depot. One component of the cooperative agreement is that the Department has waived all permitting fees, thus the need to permit additional storage units will not result in additional fee revenue for the Department. Also, the classification of additional munitions/bulk items as hazardous waste will not result in more waste storage fee revenue since the Army is already paying the maximum amount.

The decreased reportable quantities should not result in additional costs to the Department, because the Army already reports all spill/releases.

There are no direct fiscal or economic impacts on any state agencies other than DEQ resulting from the adoption of hazardous waste rules that define chemical agent munitions/bulk items as hazardous waste, establish more protective management standards for those munitions/bulk items, and decrease reportable quantity levels for chemical agents.

Assumptions

For purposes of the rulemaking and development of this fiscal/economic impact statement, it is assumed that no other individuals, group or organizations in the State of Oregon, besides the U.S. Army at Umatilla Chemical Depot, currently store or manage chemical agent munitions/bulk items. The Department is unaware of any information that would make this an invalid assumption.

Housing Cost Impact Statement

The Department has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
For
Adoption of Rules for the Storage and Management of Chemical Agent Munitions and Bulk Items

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

Under current federal hazardous waste rules, only a portion of all chemical agent munitions and bulk items at the Umatilla Chemical Depot are considered to be waste and subject to DEQ regulatory authority. In addition, these wastes are not managed in a manner which prevents potential releases of chemical agent contaminants to the environment and provides the best possible level of protection of human health and the environment. The proposed rules will define all chemical agent munitions and bulk items as a state-listed hazardous waste, and then establish specific management standards for the permitted storage units that this waste is stored in. Finally, the reportable quantities for chemical agent are revised to reflect that any spill/release of chemical agent represents a reportable quantity subject to proper notification.

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

Yes_X_ No___

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

The hazardous waste treatment, storage and disposal permitting program is identified in OAR 340-18-030 as a program affecting land use. The proposed rules will result in the classification of additional chemical munitions and bulk items as hazardous waste and require the permitting of additional storage units at the Umatilla Chemical Depot.

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

Yes _X***_ (see explanation below) No_____ (if no, explain):

***Generally, the existing procedures would be adequate to cover the nature of the proposed rules. However, these proposed rules apply only to the Umatilla Chemical Depot, which is controlled by the U.S. Army and federal government.

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

Not Applicable

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

Not Applicable

[electronic copy—signed original on file]

Wayne C. Thomas, Administrator Chemical Demilitarization Program	Roberta Young Intergovernmental Coordinator	Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
For
Adoption of Rules for the Storage and Management of Chemical Agent Munitions and Bulk Items

Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.

1. **Are there federal requirements that are applicable to this situation? If so, exactly what are they?**

   The federal requirements applicable to this situation are those promulgated as part of the Military Munitions Rule (MMR) in February 1997. The portions of that rule pertinent to this situation are found in 40 CFR 264 Subpart EE and 40 CFR 266 Subpart M, as well as the federal Preamble to the Rule.

2. **Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?**

   The applicable federal requirements are performance based. However, only general performance criteria are specified in the regulations, and the Preamble defers to the existing Army munitions management and storage program as adequate to meet those requirements.

3. **Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?**

   The applicable federal requirements do not specifically address the key components of Oregon's concerns. They do address issues such as minimization of releases and protection of human health and the environment in a general manner, but allow a level of performance that does not meet Oregon's expectations. Because Oregon's knowledge and understanding of the chemical agent munitions storage situation at Umatilla Chemical Depot has significantly matured since 1997, it is unlikely that the current concerns were considered during the promulgation of the federal rule.

4. **Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting**

requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

The proposed requirements will increase costs to one member of the regulated community (U.S. Army) as a result of making additional chemical agent munitions and bulk items subject to regulation as a hazardous waste. The proposed requirements will clarify Oregon's interpretation of the applicable requirements and reduce confusion with the current federal interpretation that the Army has historically operated under.

5. **Is there a timing issue which might justify changing the time frame for implementation of federal requirements?**

   Not Applicable.

6. **Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?**

   Not Applicable.

7. **Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)**

   The proposed requirements will affect only the Umatilla Chemical Depot. The proposed requirements will require the Army to manage all their chemical agent munitions and bulk items as hazardous waste, similar to what would be required if any other organization was storing similar materials. In addition, the Army will be required to install control devices to prevent spills/releases from the storage units. Other hazardous waste storage facilities would be expected to do the same.

8. **Would others face increased costs if a more stringent rule is not enacted?**

   Not Applicable.

9. **Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?**

   The proposed requirements are different and more stringent than the currently accepted interpretation of the applicable federal requirements. The applicable federal requirements give the U.S. Army the unique authority to determine when, or if, chemical agent munitions and bulk items will be declared hazardous waste. In addition, the applicable federal requirements allow the Army to manage and operate munitions

storage igloos in accordance with an Army-approved plan, which considers open drains and vents to be acceptable. Once again, if the federal requirements did not specifically defer to the Army to determine acceptable standards, it is unlikely that the Army's current management approach would be acceptable for storage of such lethal material. Because these munitions and bulk items are being stored solely for purposes of destruction via incineration, the Department believes that they should be designated as hazardous waste and managed accordingly. In addition, the Department does not consider it appropriate to allow uncontrolled releases/discharges of any quantity of chemical agent contaminants to the environment. The proposed requirements will address each of these Department concerns and ensure that chemical agent munitions and bulk items are managed in a manner which is adequately protective of human health and the environment.

10. Is demonstrated technology available to comply with the proposed requirement?

There are many demonstrated technologies available which could satisfactorily be used to control and prevent releases/discharges of chemical agent liquid and/or vapor to the environment. The Army has already developed drain plugs that will effectively close off floor drains, and in general, there are proven filtering or control technologies for organic vapors.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost-effective environmental gain?

The proposed requirements will contribute significantly to pollution prevention by reducing the potential for uncontrolled release of a hazardous substance to the environment. The proposed requirements will require the Army to enhance the manner in which chemical agent munitions and bulk items are managed/stored to demonstrate adequate protection of human health and the environment.

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

Date: January 10, 2001

To: Environmental Quality Commission

From: John Dadoly, DEQ, Eastern Region, Pendleton

Subject: Presiding Officer's Report for Rulemaking Hearing *[electronic copy—signed original on file]*

Hearing Date and Time: January 4, 2001, 7:00 PM

Hearing Location: Good Shepherd Medical Center, Conference Room 2, Hermiston, Oregon

Title of Proposal: Adoption of Rules for the Storage and Management of Chemical Agent Munitions and Bulk Items

On January 4, 2001 I acted as Presiding Officer at the Rulemaking Hearing for the proposed adoption of rules for the storage and management of chemical agent munitions and bulk items. Prior to receiving comments, I briefly explained the specific rulemaking proposal and the procedures to be followed during the hearing. The audience was informed that the purpose of the hearing was to gather comments pertaining to the proposed adoption of new rules and rule amendments regarding the storage of chemical agent munitions and bulk items. The proposed rulemaking will designate all chemical agent munitions and bulk items in Oregon as hazardous waste, establish specific management standards, and provide the DEQ with the necessary regulatory authority to require implementation of management practices that ensure adequate protection of human health and the environment from all potential chemical agent releases/discharges.

There was no informational presentation or answering of questions prior to the hearing.

The rulemaking hearing on the above titled proposal was convened at 7:10 PM. The hearing was closed at 7:32 PM. People were asked to sign registration forms if they wished to present comments. People were also advised that the hearing was being recorded.

Thirty-one people were in attendance, four people signed up to give comments.

The following report provides a summary of written and oral comments received at the hearing on January 4, 2001. Comments are grouped by similar subject areas. DEQ's responses to all comments received during the comment period will be included in a staff report.

Parties Affected by Incident During Construction of Incinerator :

Jim McCandlish- Mr. McCandlish is an Attorney from Portland, Oregon who is representing 68 people (as of 1/4/01) who claim to have been injured in an incident which occurred at the incinerator construction site at the Umatilla Chemical Depot on September 15, 1999. Mr. McCandlish stated that the people he represents were exposed to chemical agents, and have suffered various physical ailments since that time. He stressed that the ailments were very similar within the group of people and are characteristic of exposure to sarin and mustard gas.

Mr. McCandlish stated that other incidents occurred prior to September 15, 1999 and later in the month of September 1999, and that gas chromatograph data show that sarin and mustard were present inside and outside the building.

Mr. McCandlish showed general support for the proposed rules in his testimony. He was concerned with how quickly the new rules would be implemented and how standards for detection of chemical agents would be determined. He was concerned that there weren't enough steps being taken to prevent another accident during the construction phase. He pointed out that the Mustard Shed was an area of particular concern that did not appear to be covered by the proposed rules.

During his testimony, Mr. McCandlish submitted a written report titled Update of the July, 2000 Investigation of the 9/15/99 Umatilla Evacuation. This report is mainly a re-interpretation of the Army's monitoring data from the Umatilla Chemical Depot near the time of the incident. The report states that sarin and mustard were detected at the site after the incident on September 15, 1999.

Brian Zasso- Mr. Zasso stated that he was injured in the September 15, 1999 incident. He said that the release was never admitted to, but instrument readings show that sarin and nerve agent were present. He feels that injuries to his lungs are permanent.

Mr. Zasso wants more regulation of the Army and he feels real-time monitoring is necessary. He does not think the bunkers can contain leaks and that they are happening continuously. He was critical of the way DEQ and the Army handled the September 15, 1999 incident. He thinks the military should not be involved in the destruction of chemical agents.

James Shaffer- Mr. Shaffer also stated that he was injured on the job on September 15, 1999. He said he has a constant respiratory infection caused by exposure to a toxic substance. He was not able to work for seven months, and cannot work as a craftsperson any longer. He stated that

he has difficulty working in his current job as a computer operator due to his failing health. He said that he doesn't want this type of incident to happen again to anyone else. Mr. Shaffer was supportive of regulations affecting the Army. He does not want the Army to be in control.

Representative of the U.S. Army:

Lieutenant Colonel Tom Woloszyn- Lt. Colonel Woloszyn stated that he has been the Commander at the Umatilla Chemical Depot since July of 1999. He said he was present to listen to the concerns brought forth at the hearing. He sympathized with the people affected by the incident, and said he didn't deny they were affected by something.

Lt. Colonel Woloszyn said that the Army is committed to storing the chemical agents at the Umatilla Depot safely, and that they are looking at ways of improving safety. He also made a correction regarding a recent newspaper article which apparently stated that some safety equipment was newly installed in the igloos where chemical agents are stored. The equipment was not in place yet, but was being ordered from the manufacturer. Lt. Colonel Woloszyn closed by stating that the Army had not lied, and was willing to listen and to work with the State.

State of Oregon
Department of Environmental Quality Memorandum

To: Environmental Quality Commission **Date:** February 16, 2001

From: Thomas G. Beam, P.E. Thomas G Beam
Senior Environmental Engineer
Chemical Demilitarization Program

Subject: Summary and Evaluation of Public Comments Received

The Department of Environmental Quality (DEQ or Department) received oral testimony from four individuals at the January 4, 2001 public hearing and a total of eight written comments pertaining to the Department's proposal to adopt new rules and amend existing rules related to the storage and management of chemical agent munitions and bulk items. This memorandum presents a summary of all comments received, and includes the Department's evaluation of and response to those comment. For presentation purposes, the comments and responses are broken out into two primary sections, one for the U. S. Army's comments and another for the remaining comments. A complete index of all comments received is provided at the end of this memorandum. For convenience, a copy of the comments received from the U. S. Army is included in Attachment E. Copies of all other comments received are available from the Department upon request.

Comments Submitted by the U. S. Army

Comment #1: The Army generally questions the need for the proposed rulemaking, since they have expressed a willingness to adopt more stringent storage and management standards, either voluntarily or pursuant to an enforceable Consent Order, to address the Department's concerns.

Response: The Department agrees that the Army has shown a willingness to cooperate and adopt more stringent storage and management standards, either voluntarily or through a Consent Order. However, the Department evaluated the potential alternatives for addressing these issues and determined a rulemaking process was the most appropriate. The rulemaking process includes an opportunity for the public to provide input on the issues and proposed solutions. It is important that such an opportunity be provided since the primary issues of concern are protection of the public health and the environment, and various members of the public have shown great interest in these issues. The rulemaking process also is consistent with the Department's intent to apply these storage and management standards on a statewide basis, not just at the Umatilla Chemical Depot.

Comment #2: The Army questions whether or not the proposed Oregon Administrative Rule (OAR) 340-101-0030 is within the statutory waiver of the federal government's sovereign immunity under the Resource Conservation and Recovery Act (RCRA). Two reasons are cited. First, the United States only waives sovereign immunity and subjects its agencies and activities to state and local regulation to the same extent that anyone else is subject to such laws and regulations [42 United States Code (USC), Section 6961]. The proposed rulemaking is unclear as to whether it applies only to the chemical agent munitions stored at the Umatilla Chemical Depot, or to any such material stored in the State of Oregon. Second, it is not apparent that the munitions fall within the RCRA statutory definition of "solid waste," which is necessary before they can be designated as hazardous waste [42 USC 6903(5)]. Based on the definition in the federal RCRA regulations for when a material is "discarded", and a deference to the US Environmental Protection Agency's (USEPA) interpretation of the scope of the statutory meaning of "solid waste," the Army does not believe the Department's assertion that the munitions are solid and hazardous waste can be supported.

Response: The Department agrees that the waiver of sovereign immunity under RCRA only subjects Federal agencies to state and local laws in the same manner and to the same extent as any person is subject to such laws and regulations. The Department intended the proposed rule to be applied uniformly to all chemical agent munition storage in Oregon. Therefore, the proposed rule does not exceed the RCRA waiver of sovereign immunity. However, the Department acknowledges that the language of the proposed OAR 340-101-0030 could easily lead to a misunderstanding that the intent of the proposed rule is specific only to Army operations at the Umatilla Chemical Depot. The Department will revise the proposed rule language to eliminate this potential misperception.

The Department disagrees with the Army's comments that the determination of whether a material is a RCRA solid waste is made solely by the generator. As noted by the Army, under both RCRA and Oregon law, a material is considered a solid waste when it is "discarded." In accordance with RCRA regulations, a material is considered "discarded" if it is abandoned by being stored before or in lieu of being disposed of, burned or incinerated [40 CFR 261.2(a)(2)(i) and 261.2(b)(3)]. For example, all chemical agent munitions and bulk items currently stored at the Umatilla Chemical Depot in Oregon are awaiting destruction via incineration. The Hazardous Waste Treatment and Storage Permit (HW Permit) issued in February 1997 to the U. S. Army for construction and operation of the Umatilla Chemical Agent Disposal Facility (UMCDF) specifically provides for the destruction of all the chemical agent munitions and bulk items at the Umatilla Chemical Depot. Attachment 1 of the HW Permit specifically lists all of the chemical munitions and bulk items as slated for incineration at UMCDF. The Department recognizes that the USEPA, in its Military Munitions Rule (MMR), opted not to designate chemical agent

munitions as a solid waste unless the material is designated a waste by the U. S. Army, is found to be leaking, is disposed or treated, or is removed from storage for disposal or treatment. However, the USEPA expressly reserved to the states the legal option of asserting solid and hazardous waste jurisdiction over stored chemical agent munitions (62 Federal Register 6625, 6633). The USEPA appears to have done so partially in recognition of the fact that its MMR represents a departure from the customary RCRA procedure for determining whether a material is a solid waste. The Department does not rely solely on a generator's/owner's subjective intent in characterizing a material. Rather, determination of whether a material is a solid waste involves a factual analysis of the nature of the material and the manner in which it is actually being managed. The Department believes that its experience with agent storage and monitoring issues in Oregon warrants assertion of hazardous waste jurisdiction as allowed by the USEPA.

Comment #3: The Army questions whether or not adoption of the proposed OAR 340-101-0030 is within the statutory authority of the Environmental Quality Commission (EQC or Commission). The referenced statute, Oregon Revised Statute (ORS) 466.005, defines hazardous waste as "residues" resulting from any process of industry, government activity, etc., if such residues are classified as hazardous by order of the Commission. Current Oregon rule OAR 340-100-0010 defines "residue" solely by reference to federal rule 40 CFR 261.2, which clearly exempts military munitions from classification as waste. Residues are commonly defined to be materials left over from beneficial processes, and typically cannot be reasonably interpreted to include useful product, such as chemical agent, that has not been consciously discarded by its owner.

Response: The Department interprets the term "residue" in ORS 466.005 to encompass materials that are leftover, unused product where it can be determined that these materials are discarded. The owner's/generator's intent is a factor in determining whether a material is a residue subject to regulation. However, as the USEPA noted in comments accompanying the MMR, "intent is often difficult to discern." The Department does not rely solely on a subjective statement of intent to determine when a material is a waste or residue. In the case of the chemical agent munitions and bulk items currently stored at the Umatilla Chemical Depot, the Department is not aware of any information suggesting that the Army has any plans to use any of the stored chemical agent for any purpose. In fact, all information currently in the possession of the Department is to the contrary. The Department believes that the adoption of proposed rule OAR 340-101-0030 is fully within the statutory authority of the Commission.

Comment #4: The Army does not believe that the rulemaking proposal adequately justifies a departure from applicable federal requirements, as required by Oregon law and

regulation, specifically ORS 183.332 and OAR 340-011-0029. Three reasons are cited. First, the proposal fails to adequately identify, discuss and evaluate Oregon's specific concerns. The proposal should more specifically address the unique physical, environmental or other "local conditions" that justify a blanket departure from the federal approach. Second, the proposal does not adequately address the existence and treatment of other entities in Oregon that might possess and store chemical product, residues, or waste that are not subject to the requirements of the proposed rules ("sovereign immunity" issue). Third, the proposal does not adequately address, explain or justify the "compelling reason" for different procedural, reporting and monitoring requirements. The Army disagrees with the Department's statements in the proposal that chemical agent munitions are currently illegal to use or make, and that they are being stored solely for incineration. The Army supports their argument with references to specific provisions of the Chemical Weapons Convention (CWC) and citations of federal law and statute.

Response: Under existing federal hazardous waste requirements, the Army is allowed to designate their chemical agent munitions as "product" and manage them in accordance with applicable U. S. Army storage regulations. As discussed in the Responses to Comments #2 and #3, the Department believes that these munitions have been "discarded" and are hazardous waste. The current Army management approach is inconsistent with the Department's expectations for the storage of hazardous waste with significant potential to affect public health and the environment. They do not operate their chemical agent munition and bulk item storage units with controls that adequately reduce or prevent discharges and releases. Because existing rules and regulations do not provide the Department authority to require management changes to address these concerns, it is necessary to promulgate state rules that are more stringent than the federal rules. Generally speaking, the Department agrees with the Army that Oregon's long-standing commitment to protection of the environment is not unique. However, it is apparent to the Department that Oregon's higher sensitivity on this issue and desire to require a higher level of control and protection for its citizens and environment is unique. The Department will not lower its expectations and standards simply because no other regulatory authority has shown an interest in addressing this issue. The Department is choosing to exercise the authority expressly reserved to the states by USEPA to gain hazardous waste jurisdiction over these munitions. As discussed in the Response to Comment #3, it is the Department's intention to apply these rules to any storage of chemical agent munitions in Oregon.

Comment #5: The Army objects to the proposed OAR 340-104-1201 (particularly the "no migration" standard) as overbroad and vague. The requirement for "no detectable concentration" is not adequately defined, and the proposed rulemaking does not provide adequate information to justify this standard as

necessary to achieve a valid regulatory purpose. It is not technically feasible, and therefore not reasonable or fair as a matter of regulatory practice, to impose a standard that prohibits the release of any detectable amount of any substance.

Response: The Department does not believe that the proposed OAR 340-104-1201 is overbroad, or unnecessarily vague. "No detectable concentration" was specifically used and not defined in order to provide flexibility to the Department in determining what constitutes a "detectable concentration." This will allow unique site-specific factors (such as chemical agent characteristics, capabilities of monitoring instrumentation, storage unit configuration, etc.) to be factored into the final decision documented in the required operations/storage management plan and facility hazardous waste storage permit. The "no migration" standard and measurement criteria will be defined in the aforementioned management plan in a manner which ensures protection of human health and the environment.

Comment #6: The Army objects to the proposed OAR 340-108-0010 regarding reportable quantities and spill reporting as overbroad and vague. The phrases "any quantity" and "any detectable concentration" are not adequately defined, and the proposed rulemaking does not provide adequate information to justify these standards as necessary to protect human health and the environment. Regulatory reporting levels established at analytical detection limits are unenforceable since they are, by definition, not routinely achievable under average laboratory conditions. The Army recommends that reporting standards be established at higher "quantitation limits" that can more reasonably be measured with certainty and accuracy. They also question whether the proposed requirements would even be applicable to chemical agents, since chemical agents do not appear to be designated as "hazardous materials" under Oregon law and therefore, not subject to requirements of OAR 340-108-0010.

Response: The Department agrees that there may some confusion whether chemical agents are "hazardous materials" and therefore, subject to the requirements of OAR 340-0180-0010. The existing definition of "hazardous material" in OAR 340-108-0002 does not include chemical agent. The Department believes that chemical agent is captured in the statutory definition of "hazardous material" (ORS 466) since chemical agents were previously classified as hazardous waste. For clarification purposes, the Department is revising the proposed rules to add chemical agent to the definition of "hazardous material" in OAR 340-108-0002(9). In addition, the Department recognizes that use of "no detectable concentration" in defining a reportable quantity for spill reporting purposes may be inappropriate. In contrast, use of "no quantity" is consistent with past Department practice in establishing reportable quantities for unique and dangerous substances (such as radioactive waste/material). Therefore, the Department has revised the proposed rule language in OAR 340-108-0010 to

eliminate separate reportable quantity levels for land/water vs. airborne releases, and is now proposing a single reportable quantity of "any quantity" for chemical agent. The Department does not intend to establish specific numeric reportable quantities as part of this proposed rule.

Comment #7: The Army questions the completeness of the Department's evaluation in the proposed rulemaking with respect to the pollution prevention impacts. Although the potential for uncontrolled releases might be reduced, a significant increase in hazardous waste generation will occur due to the classification of the remaining munitions as hazardous waste and the resulting waste generated from management of the munitions, the storage areas and the control mechanisms.

Response: The Department's evaluation of "pollution prevention" impacts should have been more clearly identified as a discussion of the proposal's contribution to "prevention of pollution." The Department was not attempting to address waste minimization (often synonymous with pollution prevention) impacts, but instead to summarize the rule's effect on actual pollution to the environment. Thus, as the Army notes, the better controls advocated by the proposed rules will reduce the potential for pollution (chemical releases) to the environment. The proposed rules will classify the remaining munitions as hazardous waste, but they will continue to be managed in their present storage location and incinerated at the UMCDF.

Comment #8: The Army questions the completeness of the Department's analysis of the implementation costs associated with the proposed rulemaking. Specifically, additional closure costs are not addressed. Also, annual compliance costs will increase due to more inspections and development of a management plan.

Response: The Army correctly notes that the Department did not address closure costs in its economic impact analysis. With twice as many permitted storage units, it is conceivable that closure costs could approximately double. However, the Department has no closure cost estimates available upon which to base potential increases. In addition, although some of the storage units are not currently permitted, and therefore would not have undergone a formal RCRA closure process, there likely still would have been some cleanup and administrative "closure" costs. The Department agrees that increased inspection frequencies and the development of a management plan will increase annual compliance costs. The Department's analysis in the proposed rulemaking package addressed both of these possibilities, but did not estimate actual costs due to the lack of information on specific impacts.

Comment #9: The Army questions the accuracy of the Department's economic analysis that the proposed rules will not result in additional fee revenue for the Department. The cooperative agreement between the Department and the Army applies only

to the demilitarization facility, and does not authorize expenditure of these funds for storage activities at the Depot. Therefore, unless the Department waives permitting fees for Depot storage activities, the proposed classification of the remaining munitions as hazardous waste will result in additional fee revenue for the Department. The Army also suggests that Department use of funds provided under the cooperative agreement for storage activities at the Depot would be a violation of the cooperative agreement and federal law.

Response: The Department's Chemical Demilitarization Program is primarily funded through a Cooperative Agreement with the U. S. Army for the construction, operation, and closure of the demilitarization activities at the Umatilla Chemical Depot. This agreement waives permitting fees for the demilitarization activities in lieu of funding for the activities stipulated in the Agreement. The Department agrees that the regulatory oversight, inspection and permitting of storage activities at the Umatilla Chemical Depot are not included within the provisions of the Cooperative Agreement. The U. S. Army is required to comply with the fees for hazardous waste storage, waste generation, and permitting for the Umatilla Chemical Depot in accordance with applicable Oregon Administrative Rules. The Department is currently evaluating all applicable hazardous waste fees for the Umatilla Chemical Depot. The Department will review the results of its evaluation with the U. S. Army to ensure appropriate fees are assessed and that adequate resources are provided for the Department to administer the RCRA Part B Hazardous Waste Storage permit and fulfill its obligations.

Comment #10: The Army recommends that definitions for "chemical agent and munitions," "bulk containers" and "ambient air" be added since they are used in the proposed rule language, but not defined in the rulemaking package or elsewhere in Oregon hazardous waste management regulations.

Response: The Department does not agree with the recommendation to add definitions for "chemical agent and munitions," "bulk containers" and "ambient air." "Ambient air" has been deleted from the final proposed rule language being presented to the EQC for adoption. The Department does not believe it is necessary to provide definitions in the proposed rule for the other two. The Department believes the language is self-explanatory in the context of the proposed rules and that it does not represent an enforcement ambiguity. Readily referenced and common definitions already exist for each of the terms/phrases, and additional clarification is not necessary.

Comment #11: The Army questions the use of military-specific nomenclature such as "VX", "GB" and "HD" in the rulemaking, since it is imprecise and does not allow easy cross-referencing to other lists of regulated chemicals. They recommend that

these chemical agents be identified by their specific chemical name and Chemical Abstracts Service Registration Number (CASRN).

Response: The Department agrees that the use of military-specific nomenclature may be imprecise and inappropriate for regulatory language and rules. However, the Department does believe it is appropriate to utilize these references as illustrative examples of "chemical agent," "nerve agent," or "blister agent." The proposed rule language has been adjusted to meet this intent. Further, specific identification of these three chemical agents could limit the scope of the proposed rule, which is not the intent of the Department. The Department intends these proposed rules to apply to all chemical agent and munition storage in Oregon.

Comment #12: The Army is concerned that proposed OAR 340-104-1201(1)(a) requires Department approval for storage unit operation and management plans, but does not recognize the potential for conflict between established Department of Defense Explosive Safety Board (DDESB) regulations and State of Oregon requirements. In cases where multiple regulatory bodies have authority, they must work to ensure consistency in the required approach.

Response: The Department acknowledges the potential for conflicting requirements when multiple regulatory bodies exercise authority over a common jurisdiction. In the Department's experience, a situation of this type seldom results in a problem where separate requirements are in direct conflict. The Department typically will rely on existing requirements to the extent they address the Department's concerns, and then impose additional requirements where the existing ones are inadequate. The Department does not believe that it is necessary to specifically address this situation in the rulemaking proposal.

Comment #13: The Army questions the specificity of proposed language in OAR 340-104-1201(1)(b) requiring that "Vapor containment...consist...of...carbon filtration." It is unnecessary to prescribe a particular control technology for "vapor containment," thus limiting the ability to utilize other, better technologies that may become available. In addition, the proposed language will not allow the Army to simply seal up storage igloos in order to eliminate releases and meet the "no migration" standard. The Army recommends the language be revised to more closely reflect the Department's apparent intent of ensuring no detectable concentration of chemical agent is released to the environment.

Response: The Department agrees that the specification of carbon filtration as the required vapor containment mechanism is unnecessarily prescriptive, and limits the ability to utilize other, better technologies. The Department also agrees that such a requirement would not allow the Army to simply seal up their storage igloos at the Umatilla Chemical Depot to meet the "no migration" standard.

The Department has revised the proposed rule language in OAR 340-104-1201(1)(b) to require that storage units for nerve agents must be equipped with vapor containment mechanisms.

Comment #14: The Army objects to the proposed OAR 340-104-1201(3) establishing the measurement criteria for the "no migration" standard through reference to the sampling and analytical methods identified in the "approved management plan." This restricts the ability to conveniently and quickly implement new, improved analytical methods and devices. The Army also raises the question of whether the Department will approve sampling and analytical methods not first approved by the USEPA. The Army proposes that the Department revise the rule to simply state that the definition of "no migration" is "No detectable concentration of chemical agents is emitted outside of engineering controls to ambient air." The Army further proposes that the Department specify numerical concentrations at the detection limits of current instrumentation and then just require the detection system to meet these limits.

Response: As previously mentioned in the Response to Comment #5, the Department intentionally deferred specific measurement criteria for the "no migration" standard to the required storage management plan. This allows the Department to establish measurement criteria which are sufficiently protective of human health and the environment, and provides flexibility to take into account facility-specific or unique circumstances. The Department feels that the value of this flexibility outweighs any potential constraints on the ability of the affected facility to more conveniently implement new and improved analytical methods and instrumentation. In addition, the Department anticipates that the approved management plan will become part of the affected facility's hazardous waste permit, which will already put certain constraints on the ability to implement such changes. The Army correctly notes that the Department does not normally consider approving testing or analytical methods until they have been approved by USEPA. However, the Department has already demonstrated a willingness to consider and approve use of methods specific to chemical agent analyses, which are not approved by USEPA. The Department understands that chemical agent analyses present unique challenges. The Department does not intend to establish specific numeric reportable quantities as part of this proposed rule.

Comment #15: The Army recommends deletion of the word "contaminant" from the proposed OAR 340-104-1201(3). It is not defined elsewhere in the proposed rule and is inconsistent with other references to "chemical agent."

Response: The Department agrees that the use of the word "contaminant" in the proposed OAR 340-104-1201(3) is inconsistent with language referring to chemical agent in the remainder of the proposed rule. The Department will delete the word

"contaminant" from the final version of the proposed rule presented to the Commission for adoption.

Comment #16: The Army suggests that the Department revise the proposed OAR 340-108-0010 to avoid the use of undefined terms such as "ambient air," "any quantity," and "any detectable concentration." The Army recommends that the revised language clearly indicate the Department's apparent concern lies with detected chemical agent concentrations outside of engineering controls. The Army further recommends that the Department establish specific numerical reportable quantities that correspond approximately to the time weighted average for 8-hour worker safety exposure limits (8-hr TWA).

Response: The Department agrees that the use of "ambient air" and "any detectable concentration" do not clearly convey the intent to require spill reporting for any release of chemical agent to the environment. In contrast, use of "no quantity" is consistent with past Department practice in establishing reportable quantities for unique and dangerous substances (such as radioactive waste/material). Therefore, the Department has revised the proposed rule language in OAR 340-108-0010 to eliminate separate reportable quantity levels for land/water vs. airborne releases, and is now proposing a single reportable quantity of "any quantity" for chemical agent. The Department does not intend to establish specific numeric reportable quantities as part of this proposed rule.

Remainder of Submitted Comments

Comment #17: Three commenters were concerned that the chemical agent munition storage igloos at the Umatilla Chemical Depot have open drains and vents, and that the Army does not adequately monitor (insufficient frequency) to ensure timely detection of potential releases of nerve agent to the environment. It was suggested that the storage igloos, as well as the building storing mustard agent, should be sealed up to prevent potential releases to the environment. It was further suggested that the Army should be using better monitoring equipment, potentially including real-time monitoring of the storage igloos. [Tucker, Shaffer, Zasso]

Response: The Department shares commenters' concerns regarding the open drains and vents on the storage igloos at the Umatilla Chemical Depot, and has aggressively questioned whether the Army's monitoring frequency is adequate to ensure timely detection of potential releases of chemical agent to the environment. The Department believes that this proposed rulemaking effort will address these concerns and ensure protection of human heath and the environment. The Department has not proposed requiring the Army to seal up their storage areas, but the rule will allow them to pursue that option if it offers

the best solution. The Department's primary concern is ensuring the best possible protection, not specifying exactly how that is achieved. The Department continues to examine the monitoring equipment and procedures utilized by the Army to ensure they are adequately protective. In addition, the Centers for Disease Control (CDC) has been requested to perform an assessment/evaluation of the adequacy of the Depot's monitoring program. The final details for the Army's management program will be established after submittal of their management plan to the Department. The Department intends to focus on ensuring the best possible methods to prevent leaks from the storage areas.

Comment #18: Four commenters supported the Department's proposal to establish reporting requirements for any detectable release/discharge of chemical agent to the environment. [Brenner, Tucker, Shaffer, Zasso]

Response: The Department acknowledges the support expressed by the commenters for the Department's proposal to establish reporting requirements for any detectable release/discharge of chemical agent.

Comment #19: Two commenters supported the Department's proposal to classify all chemical agent munitions and bulk items as solid/hazardous waste to ensure they are regulated and managed in a manner consistent with hazardous waste management regulations. [Brenner, Jones]

Response: The Department acknowledges the support expressed by the commenters for the Department's proposal to classify all chemical agent munitions and bulk items as solid/hazardous waste.

Comment #20: One commenter questioned whether the Department had the authority to classify all chemical agent munitions and bulk items at the Umatilla Chemical Depot as solid and hazardous waste, especially since there is a clear definition for waste munitions in 40 CFR 266 Subpart M, and the Army's chemical munitions can legitimately be used for research, development, testing and evaluation activities. [Richards]

Response: Similar comments were submitted by the U. S. Army. The Department's response is provided above in its Responses to Comment #2 and Comment #3.

Comment #21: Seven commenters supported the Department's proposal to adopt more stringent standards and controls for the storage and management of chemical agent munitions and bulk items to ensure protection of human health and the environment. [Richards, Brenner, Tucker, Shaffer, Zasso, McCandlish, Jones]

Response: The Department acknowledges the support expressed by the commenters for the Department's proposal to adopt more stringent standards and controls for the storage and management of chemical agent munitions and bulk items.

Comment #22: One commenter objected to the Department's proposed rule OAR 340-104-1201(1)(b) as overly specific to a single control technology (carbon filtration), and not specific enough with regard to a desired level of performance. It was recommended that the language be revised to reference "vapor containment mechanisms" or similar wording, and also consider specifying numeric performance standards. [Richards]

Response: The Department agrees that the proposed rule was overly specific to carbon filtration technology. See Department's Response to Comment #13. The Department does not intend to establish specific numeric concentration values as part of this rule. See Department's Responses to Comment #14 and Comment #16.

Comment #23: One commenter requested that the Department review and approve the storage and operations management plan referenced in the proposed OAR 340-104-1201 (including agent containment mechanisms and monitoring/inspection programs), independent of and without relying on existing Army information sources (plans, procedures, studies, etc.). The Department should also ensure that it is using the most recent scientific data related to chemical agent toxicity and exposure. [Jones]

Response: The Department understands the commenter's concern and agrees that the most recent, accurate and reliable information should be used as the basis to approve the management plan. However, the Department will not exclude any available information sources (including those from the Army) that may be useful in assisting the Department in approving a chemical agent munitions and bulk items management plan that provides protection of human health and the environment. The U. S. Army has significant experience in the management of chemical agent munitions and bulk items, and to the extent that it is prudent, reasonable and objective, the Department will rely on Army information sources that are accurate and defensible when evaluating and approving storage and management plans. The Department will also rely, as appropriate, on other information sources, such as the National Research Council (NRC), the USEPA, the Centers for Disease Control (CDC), etc.

Comment #24: One commenter was concerned that the implementation timeframe for the proposed rules might not be quick enough to adequately address potential chemical agent releases from storage areas, and whether or not the monitoring standards for detection would be sufficient to protect public health and the environment. Concern was also expressed that the proposed rules do not appear

to sufficiently address the building where mustard agent is stored at the Umatilla Chemical Depot. [McCandlish]

Response: The Department shares commenter's concern that the proposed rules be implemented in a timely manner to reduce potential chemical agent releases from storage areas. The Department intends to pursue implementation of the proposed rules in the most expeditious manner possible. To better control the implementation schedule and process, the Department is proposing changes to the rules requiring submittal of the overall chemical agent munition storage and management plan no later than April 30, 2001. The subsequent implementation schedule will depend on the results of the Department's review of the submitted plan.

The Department also shares commenter's concern that the reporting limits for releases and monitoring standards for demonstrating "no migration" be established at a level which provides adequate protection. The appropriate levels have not yet been established, and will be finalized as part of the Department's review of the submitted management plan. The Department intends to utilize all available and current information to establish levels protective of human health and the environment. Proposed rule language has been revised to establish the reporting limit for chemical agent spills or releases as any quantity.

The proposed rulemaking effort does include the building ("mustard shed") where mustard agent is stored at the Umatilla Chemical Depot. Specific requirements for the "mustard shed" at the Umatilla Chemical Depot will be addressed and covered in the management plan submitted by the U. S. Army and the upcoming hazardous waste storage permit.

Comment #25: One commenter provided a summary of past operational experiences at the Umatilla Chemical Depot and expressed concern about continued storage of the chemical agent munitions and bulk items. The commenter also expressed general support for efforts to destroy the chemical agent munitions and bulk items. [Bloom]

Response: The Department is also concerned about continued long-term storage of the chemical agent munitions and bulk items. The Department acknowledges the support for ongoing efforts to safely destroy the chemical agent munitions and bulk items currently being stored at the Umatilla Chemical Depot.

Comment #26: One commenter indicated that the Army has safely stored the chemical agent munitions and bulk items at the Umatilla Chemical Depot for 39 years, and is committed to continue doing so. The Army is looking at various options to

ensure safe storage and protection of human health and the environment. [Woloszyn]

Response: The Department acknowledges the Army's statement of commitment to safely store the chemical agent munitions and bulk items at the Umatilla Chemical Depot.

List of Persons Submitting Written Comments

1. Ms. Elmo Bloom, 29508 Bridge Rd., Hermiston, OR 97838. Comments hand-delivered November 27, 2000. [DEQ Item No. 00-1678]
2. Mr. Joseph Henry Richards, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), P.O. Box 638, Pendleton, OR 97801. Comments received via mail December 21, 2000. [DEQ Item No. 00-1661]
3. Mr. James E. McCandlish, Attorney at Law, 111 S.W. Naito Parkway, Portland, OR 97204-3500. Comments received via mail January 8, 2001. [DEQ Item No. 01-0018]
4. Mr. Raymond J. Fatz, Department of the Army, Office of the Assistant Secretary, Installations and Environment, 110 Army Pentagon, Washington, DC 20310-0110. Comments received January 10, 2001 via both facsimile transmission (signed copy) and email (unsigned electronic copy randall.cerar@sbccom.apgea.army.mil). [DEQ Item No. 01-0029]
5. Mr. Johnny E. Tucker, 58408 N. 435 Pr NE, Benton City, WA 99320. Comments received January 10, 2001 via email (jjtucker@bentonrea.com). [DEQ Item No. 01-0030]
6. Mr. James E. Shaffer, 5031 W. Clearwater Ave. #86, Kennewick, WA 99336. Comments received January 10, 2001 via email (james_e_shaffer@rl.gov). [DEQ Item No. 01-0026]
7. Ms. Karyn Jones, G.A.S.P. et al., P.O. Box 1693, Hermiston, OR 97838. Comments hand-delivered January 10, 2001. [DEQ Item No. 01-0027]
8. Ms. Lisa P. Brenner, Ph.D., The Oregon Clearinghouse for Pollution Reduction (OrCPR), 3816 N.E. Glisan, Portland, OR 97232. Comments received January 10, 2001 via facsimile transmission. [DEQ Item No. 01-0028]

List of Persons Providing Oral Testimony at Public Hearing

1. Mr. James E. McCandlish, Attorney at Law, 111 S.W. Naito Parkway, Portland, OR 97204-3500. [also submitted written documentation/report "Update of the July, 2000 Investigation of the 9/15/99 Umatilla Evacuation" as part of his testimony. This document was previously received by the Department on 12/18/00, DEQ Item No. 00-1655]
2. Mr. Brian M. Zasso, 507 N. Arthur St., Apt. F102, Kennewick, WA 99336.
3. Mr. James E. Shaffer, 5031 W. Clearwater Ave. #86, Kennewick, WA 99336.
4. Lieutenant Colonel Thomas F. Woloszyn, United States Army, Commander, Umatilla Chemical Depot, Hermiston, OR 97838.

[ONLY Headers and footers added for this staff report]

Mr. Thomas G. Beam
Department of Environmental Quality
Chemical Demilitarization Program
256 E. Hurlburt Avenue, Suite 105
Hermiston, Oregon 97838

Dear Mr. Beam:

This correspondence contains the U.S. Army's comments to the State of Oregon rulemaking proposal, dated November 17, 2000, titled: "Rulemaking Proposal and Rulemaking Statements – Adoption of Rules for the Storage and Management of Chemical Agent Munitions and Bulk Items." The Army is committed to the safe, environmentally sound storage of all chemical warfare agent, munitions, and bulk items. To that end, the Army has taken substantial steps to ensure that storage facilities are secure and appropriate for the type and quantity of material being stored.

During the pre-proposal review of this rule, the Army offered to work with the State to define and implement enforceable storage standards that would address regulators' concerns, thereby making this rulemaking unnecessary. We renew our offer now. In the event the State elects to proceed with this rulemaking, the Army offers the attached general and specific comments in order to address legal, technical, and policy considerations. If adopted, the Army will work closely with the Department of Environmental Quality to ensure a smooth transition into the implementation of this rule on a schedule that is technically and fiscally responsible.

If you have any questions or need additional information, please contact Mr. Denzel Fisher at (703) 695-0984, Denzel.Fisher@hqda.army.mil.

Sincerely,

[electronic copy of transmittal, signed original on file]

Raymond J. Fatz
Deputy Assistant Secretary of the Army
(Environment, Safety and Occupational Health)
OASA(I&E)

Enclosure

Comments on the State of Oregon Department of Environmental Quality Proposal to Adopt Rules for the Storage and Management of Chemical Agent Munitions and Bulk Items

Introduction:

The Department of Army (Army) is committed to the safe, environmentally sound storage of all chemical warfare agent, munitions, and bulk items in the state of Oregon. The Army has worked diligently with the staff of the Oregon Department of Environmental Quality (Department) to address concerns related to the storage of the stockpile of chemical warfare materials at the Umatilla Chemical Depot (UMCD). During the pre-proposal review of the rule, the Department asked the Army to comment on technical aspects of the proposed rule. We expressed our willingness to adopt more stringent standards and to implement additional protective measures voluntarily or even pursuant to an enforceable Order on Consent, in order to obviate the need for a rulemaking of questionable utility. For reasons that are not clear, the Department sought, nonetheless, to pursue this rulemaking effort. Because the proposed rule seeks to regulate as waste what has heretofore been considered a "product" under federal and state law, the Army is compelled to raise the legal, technical, and policy concerns set forth herein.

The United States Army Soldier and Biological Chemical Command (SBCCOM) and the Umatilla Chemical Depot (UMCD) have been working with the Department through permit negotiations to resolve technical issues in the spirit of cooperation and understanding. Based on these negotiations to date, the Army is prepared to implement several substantial changes to UMCD's storage facilities, management plans, and procedures to address the Department's concerns. The Army believes our common goal, the continued safe storage of the chemical stockpile, can be achieved without the promulgation of this rule, and we renews our request and commitment to define and implement enforceable storage standards through means other than this proposed rule.

Nonetheless, since the State of Oregon has requested comments on the Department's proposed rule, the Army offers the following comments. The general comments raise several questions about the legal and technical propriety of regulating all such material as a hazardous waste under the laws of the State of Oregon. Additionally, specific comments are provided to clarify requirements, standards, and terms of the proposed rule so that the Army can plan and execute required changes to meet the State's new standards.

General Comments:

1. **Authority:** The rulemaking proposal does not articulate clearly the authority, bases, or need for the Environmental Quality Commission ("Commission") to designate all chemical agent munitions in storage in Oregon as hazardous waste.

a. It is not clear the proposed Oregon Administrative Rule (OAR) 340-101-0030 is within the statutory waiver of the United States' sovereign immunity.

For two reasons, it appears the proposed OAR 340-101-0030 is not within the statutory waiver of sovereign immunity under the Resource Conservation and Recovery Act (RCRA). First, the United States only waives sovereign immunity and subjects its agencies and activities to state and local regulation for laws and regulations "in the same manner, and to the same extent, as any person" is subject to such laws and regulations. (42 United States Code (U.S.C.) § 6961).

Throughout the administrative information, as well as the proposed rule itself, it is unclear whether this proposed rulemaking applies to only the chemical agent munitions and bulk items in storage at UMCD or to any similarly-dangerous chemicals stored elsewhere in the State of Oregon. If the intent of the proposed rule is to single out the Army as the only regulated entity subject to this proposed rule, then the proposal should more clearly explain the justification for treating the Army differently, especially in light of the language of the RCRA waiver of sovereign immunity. Otherwise, the Army remains concerned that a state requirement that is not applicable to all persons subject to RCRA, but only applicable to the federal government exceeds the waiver of sovereign immunity under RCRA for that particular provision.

Second, it is not apparent the "product" munitions fall within the RCRA statutory definition of "solid waste." As noted, RCRA waives sovereign immunity of federal agencies for certain federal, state and local laws and regulations governing the treatment, storage and disposal of solid and hazardous waste. RCRA defines "hazardous waste" as a subset of "solid waste." (42 U.S.C. §6903(5)). Therefore, a substance must first meet the definition of a solid waste before one can look to the hazardous waste designation.

The determination under RCRA of state or federal jurisdiction over a material hinges on whether that material is a "solid waste." The RCRA statutory definition of "solid waste" hinges on whether a material has been "discarded. The term "discarded" is not defined in the statute. The federal RCRA regulations, however, define a material as being discarded if it is abandoned, recycled or designated inherently waste-like. This determination is a fact-based one to be made by the generator as specified by 40 Code of Federal Regulations (CFR) § 261.2 and 262.11. The United States Environmental Protection Agency (USEPA) promulgated the federal MMR after considerable public

input and deliberation. Its interpretation of the scope of the meaning of the statutory term "solid waste" is entitled to considerable deference, and does not support the broad assertion of regulatory authority implicit in the proposal.

b. It is not clear the proposed OAR 340-101-0030 is within the statutory authority of the Commission.

The notes to proposed OAR 340-101-0030 indicate the Department's intent to rely on certain Oregon statutes for authority to regulate chemical warfare agent as hazardous waste. Oregon statutes are similar to federal statues in their approach to regulating solid and hazardous wastes. The only relevant portion of Oregon Revised Statute (ORS) 466.005 defines "hazardous waste" to include "residues resulting from any process of industry...or government...if such residues are classified as hazardous by order of the commission ...." "Residues" are not defined by statute. The current OAR 340-100-0010 defines "residue" solely by reference to 40 CFR 261.2, which clearly exempts military munitions from blanket classification as solid waste or "residue."

Proposed rule OAR 340-101-0030 interprets the ORS 466.005 definition of hazardous waste. By its terms, ORS 466.005(7) applies only to "residues." A residue is commonly defined to be material left over from a beneficial process of industry, manufacturing, or other trade, business or government activity. It typically cannot reasonably be interpreted to include a useful product, such as chemical warfare agent, that has not been consciously discarded, abandoned, or reclassified by its owner.

The proposal should more clearly explain how the Oregon legislature's delegation of authority over process "residues" empowers the Commission to regulate usable material. It should also explain what role the owners' intent plays in determining whether a material is a "residue" subject to regulation by the Commission.

2. **Federal Requirements:** The proposal does not justify a departure from applicable federal requirements, as required by Oregon law and regulation.

The Oregon legislature has expressed a clear preference that Oregon agencies adhere to otherwise applicable federal regulatory standards. Specifically, ORS 183.332 provides:

> **183.332 Policy statement; conformity of state rules with equivalent federal laws and rules.** It is the policy of this state that agencies shall seek to retain and promote the unique identity of Oregon by considering local conditions when an agency adopts policies and rules. However, since there are many federal laws and regulations that apply to activities that are also regulated by the state, it is also the policy of this state that agencies attempt to adopt rules that correspond with equivalent federal laws and rules unless:

(1) There is specific statutory direction to the agency that authorizes the adoption of the rule;
(2) A federal waiver has been granted that authorizes the adoption of the rule;
(3) Local or special conditions exist in this state that warrant a different rule;
(4) The state rule has the effect of clarifying the federal rules, standards, procedures or requirements;
(5) The state rule achieves the goals of the federal and state law with the least impact on public and private resources; or
(6) There is no corresponding federal regulation. [1997 c.602 s.2]

The Oregon Administrative Rules implement this statutory guidance by requiring the Commission to make specific findings (OAR 340-011-0029). The Appendix C Disclosure statement (the "disclosure") relating to the justification of the proposed rules do not establish a need for a blanket departure from the equivalent federal rules.

The Appendix C disclosure does not justify a departure from federal requirements in three important respects. First, the disclosure fails adequately to identify, discuss and evaluate Oregon's specific concerns. (OAR 340-011-0024, Table 1, Question 3) The Army acknowledges, appreciates, and shares Oregon's long-standing commitment to protecting human health and the environment. These concerns, however, are not unique to Oregon, and were considered during the development of the federal military munitions rule. The proposal should more specifically identify, discuss and evaluate the unique physical, environmental or other "local conditions" that justify a blanket departure from the federal approach.

Second, as discussed elsewhere in these comments, the disclosure does not adequately address the existence and treatment of other entities in Oregon that might possess and store chemical product, residues, or waste that are not subject to the requirements of the proposed rules. (OAR 340-011-0024, Table 1, Question 7) Indeed, the primary justification for the change seems to be the belief that chemical agent munitions and bulk items should be classified as hazardous waste to ensure they are managed properly, in light of their dangerous character. This same rationale could be used to support the classification of all chemicals in storage in Oregon as hazardous waste. Oregon could make a determination the manufacturer's state of mind bears no relation to the hazards of the industrial processes he employs, therefore all chemicals and industrial processes should be subject to RCRA authority and regulation. Certain chemicals currently in storage in the State of Oregon can pose the same risks as those chemicals that have been "discarded", but only the discarded chemicals are subject to RCRA.

Third, the disclosure does not adequately address, explain or justify the "compelling reason" for different procedural, reporting, and monitoring requirements. (OAR 340-011-0024, Table 1, Question 9)

This portion of the disclosure incorrectly states that UMCD chemical munitions are stored solely for incineration. These munitions serve an important deterrent function and are fully usable for research, development and testing. The Department of Defense's (DoD) classification of a munition in one of the various DoD demilitarization accounts does not constitute a decision to discard a munition because, as evidenced by DoD practices, such a classification does not necessarily indicate an intent to discard that munition. Usable munitions scheduled for disposal may be called back into service, if needed, and therefore still serve a deterrent purpose. See 62 Federal Register (FR) 6621, 6626 (12 February 1997). In fact, munitions in transit to a disposal facility, could be recalled for use even after they were headed towards the disposal facility.

Additionally, in March and April of 1998 an evaluation was conducted at UMCD of unused munitions that the Army and the Department mutually agreed to be of questionable status concerning their classification as a product or waste. This evaluation was performed by technically qualified Army representatives from the National Inventory Control Point and National Maintenance Point. This evaluation concluded that numerous items were deteriorated or damaged to the point that their return to serviceable condition was not a realistic option. On 12 May 1998, the Army did declare these numerous munitions at UMCD to be a hazardous waste and these items remain subject to Department regulation under RCRA. The remainder of the munitions retained their product classification due to their serviceable condition.

The Chemical Weapons Convention (CWC) also supports the Army's position that chemical agent munitions, such as those in storage at UMCD, are capable of being used as weapons until they are finally destroyed. The definition of "chemical weapons" in the CWC, found at Article II, ¶ 1(b), does not include any element related to the intent of the weapon's possessor (*i.e.,* the fact the possessor nation may have declared it will never use, and will eventually destroy such material, does not change its character from chemical weapons to a waste). The CWC also provides for an "order of destruction" (CWC, Art. IV, ¶ 6) that permits States Parties to maintain portions of their stockpiles for up to ten years, with an additional extension of five years, and includes the right to withdraw (CWC, Art. XVI, ¶ 2) which contemplates a State Party might reverse their decision to destroy their stockpile.

The Department proposal states it is currently illegal to use or make chemical agent munitions and/or bulk items. This interpretation of federal law and U.S. treaty obligations is not entirely accurate. While there is a statutory prohibition on the production or acquisition of chemical munitions (50 U.S.C. 1521(h)) and the CWC does prohibit a State Party from using chemical weapons (CWC, Art. 1, ¶ 1(b)), the CWC does authorize the use of toxic chemicals for purposes <u>not</u> prohibited under the

Convention (CWC, Art. VI, ¶ 1). It is the Army's position the chemical agent munitions and bulk items in storage at UMCD could be used for purposes such as research, development and testing thereby supporting their classification as a usable product. As noted above, the CWC also includes a right to withdraw if a State Party "decides extraordinary events,...., have jeopardized the supreme interests of its country." Such a withdrawal supports the Army's position of the deterrent value of the chemical agent munitions and bulk items in storage at UMCD.

During promulgation of the Military Munitions Rule, EPA squarely addressed the role of the CWC in determining the waste status of the chemical weapons stockpile. In seeking comments on whether these munitions should be regulated under RCRA, EPA noted that

> the munition on which most of the discussion has centered – the M55 rocket – is already regulated as a hazardous waste. Therefore, the main concern with the stored chemical weapons is already being addressed as a regulatory matter. In addition, [under the proposed rule], leaking munitions would be regulated under subtitle C. . . . Finally, the general safety of the stockpile chemical munitions is already the subject of considerable internal and external review. EPA, as a result, tentatively concludes that additional oversight under RCRA would not significantly increase protection of human health and the environment, while increasing the paperwork burden on the service and workload burden of the regulatory agencies.

60 Fed. Reg. 56485, col. 3 (November 8, 1995).

After considering comments, EPA concluded that

> [d]isarmament conventions and Congressional directives to demilitarize a weapons system should not be interpreted as a decision to discard a munition. In many cases, the provisions in the treaties or conventions do not equate to a decision to discard a specific munition in that they allow, for example, for implementation schedules, retaliatory use, and very specific verification procedures that do not equate to the process established under RCRA.

62 Fed. Reg. 6633, col. 2 (February 12, 1997).

3. **Reporting Requirements:** The Army has a question as to the proposed definitions used for spill reporting and is concerned the proposed language is overbroad and vague which could lead to misunderstandings on enforcement.

To be subject to the spill reporting requirements under ORS 469.605 *et seq*, there must be a release of a hazardous material equal to or exceeding the reportable quantity for that material. For purposes of these comments, "hazardous material" is statutorily defined as (1) a material designated by the commission under ORS 466.630 or (2) hazardous waste as defined in ORS 466.005 (the other definitions are not applicable here). See ORS 46.605(7). "Reportable quantity", again for purposes of these comments, is then defined in the statutes as (1) a quantity designated by the commission under ORS 466.625 or the lesser of the quantity designated by the USEPA under the Federal Water Pollution Control Act or the quantity designated for hazardous waste under ORS 466.005 to 466.386. See ORS 466.605(10).

Looking to the state regulations that implement these portions of ORS 466, the current state regulations do not define chemical agents as a hazardous material. Rather these regulations, found at OAR 340-108-0002, define hazardous material as (1) radioactive waste and material as defined by ORS 469.300 and 469.530 and (2) substances and wastes as listed in 40 CFR Part 302, Table 302.4. Chemical agents do not meet the definition of radioactive waste or material and are not included in Table 302.4 of 40 CFR 302. Looking to the state regulatory definition of "reportable quantity", this regulation references oil or hazardous material so the requirement for spill reporting does not include chemical agent. Including a reference to chemical agent in OAR 340-108-0010, Reportable Quantities, does not appear to overcome the fact that this requirement is only applicable to radioactive waste and material or substances and wastes listed in Table 302.4 of 40 CFR 302, neither which encompass chemical agent.

The Army would propose promulgation of a regulation that specifically designates chemical agent as a hazardous material in accordance with ORS 466.605(7)(a) and then defining chemical agent to ensure spill reporting for a chemical agent release falls clearly within the State program. However, the Army also has a concern with the proposed spill reporting standard of "*any quantity* of chemical agent" or "*any detectable concentration* of chemical agent" (emphasis added).

The proposed "Reportable Quantities" (spill reporting standard of "any quantity of chemical agent" or ambient air releases of "any detectable concentration of chemical agent") is overbroad, vague, and could lead to misunderstandings on enforcement. (Proposed OAR 340-108-0010)

The phrases "any quantity" or "any detectable concentration" for reportable quantities are not quantified in any way. Because the proposal does not provide any technical data to indicate this standard is required to ensure protection to public human health or the environment due to a release of chemical agent into the environment that may present substantial danger, it appears to be overbroad. The proposal should explain why this standard is necessary or desirable to achieve a valid regulatory purpose.

Additionally, the proposed spill reporting standards of "any quantity" and "any detectable concentration" do not provide the necessary notice as to what events would require reporting. In addition, this proposed language might permit arbitrary and discriminatory administrative enforcement. To preclude this, the regulation should provide explicit standards against which compliance can be achieved and enforced.

The ambient air reporting standard is technically vague and unenforceable. To be enforceable, a regulatory level that is necessarily dependent on or associated with an analytical method must be routinely achievable under average laboratory conditions. Analytical detection limits are, by definition, not routinely achievable under average laboratory conditions. Thus, a regulatory level set at the detection limit is difficult, if not impossible, for a regulated party to demonstrate compliance.

The lowest level of a particular chemical that can be reliably measured within acceptable limits of precision and accuracy under routine laboratory operating conditions is that chemical's "quantitation limit". Quantitation limits are estimated based on the detection limits and an estimated multiplier that represents a practical and routinely achievable level with relatively high certainty the reported value is reliable. The USEPA uses a value of five times the analytical limit as the quantitation limit and the regulatory level. See 55 FR 11798, 11845, 29 March 1990.

The proposal should explain why the chosen spill reporting standard for an agent release to the environment is necessary and provide a consistently enforceable ambient air release standard. For example, the reportable quantity specified in the regulation could be set at five times the analytical detection limit, in accordance with USEPA practice. Specific comments and suggested changes are offered up in the specific comment section.

4. **Monitoring Standards:** The proposed "Reportable Design and Operating Standards" (in particular, the "no migration" standard) is overbroad and vague which could lead to misunderstandings on enforcement. (Proposed OAR 340-104-1201)

The proposal appears to impose a requirement there be "no detectable concentration" of chemical agents outside of the storage unit. The phrase "no detectable concentration" is not defined or quantified. Because the proposal does not provide any technical data to indicate this standard is required to ensure protection to public human health or the environment, it appears to be overbroad. The proposal should explain why this standard is necessary or desirable to achieve a valid regulatory purpose.

Similarly, the proposed "no migration" standard prohibiting any "detectable concentration" does not provide the necessary notice as to what events would constitute a violation. Thus, a regulatory standard defined in this manner would make it difficult, if not impossible, for a regulated party to demonstrate compliance. To preclude this, the

regulation should provide explicit standards against which compliance can be measured.

The "no migration" standard requiring "no detectable concentration" is technically vague and unenforceable. This proposed rule suffers from the same technical flaws as the reportable quantities rules discussed above. In essence, it is not technically feasible, and therefore not reasonable or fair as a matter of regulatory practice, to impose a standard that prohibits the release of any detectable amount of any substance.

The proposal should explain why the chosen "no migration" standard prohibiting any "detectable concentration" of chemical agent is necessary and provide a consistently enforceable standard. Specific language changes are provided in the specific comments section.

5. **Pollution prevention:** ORDEQ makes the statement these proposed rules will contribute significantly to pollution prevention by reducing the potential for an uncontrolled release of a hazardous substance to the environment. While these proposed regulations might reduce the potential for an uncontrolled release of hazardous material to the environment, these proposed regulations will, in fact, result in a significant increase of hazardous waste generation. First, there would be the initial determination by ORDEQ that the remaining stockpile in storage at UMCD is a solid waste, and hence a hazardous waste. Second, any solid waste generated from the treatment, storage or disposal of a hazardous waste is a hazardous waste due to the application of the "derived-from rule" so any solid waste generated from the treatment, storage or disposal of the chemical agent munitions and bulk items at UMCD would be a hazardous waste. Then there is the application of the mixture rule which states a mixture of a solid waste and a listed hazardous waste is a hazardous waste which could be called into play at the UMCD storage units, thereby resulting in additional hazardous waste generation. Last, we have the hazardous waste that would be generated by the closure of all of these storage units and the provisions for carbon filtration will increase waste generated associated with the maintenance and upkeep of the filtration systems applied to the igloos. This proposed regulation and the existing RCRA framework will result in a significant increase of hazardous waste generation. The Army feels ORDEQ should address this aspect of their proposal for completeness

6. **Costs to implement:** The narrative presented by ORDEQ on costs does not address closure costs. With twice as many permitted storage units, the closure costs will most likely double. For completeness, the aspect of closure should be more thoroughly addressed. Increased inspection intervals and submission of Storage Management Plan will also increase the annual compliance costs.

7. **Funding of ORDEQ:** The proposal does not accurately characterize the relationship between federal and state funding obligations. The administrative information (Attachment A, page 3) makes the statement the Chemical Demilitarization Program is funded entirely by the Army in accordance with a cooperative agreement between the Department (*i.e.,* ORDEQ) and the U.S. Army. The attachment goes on to state one component of this cooperative agreement is the Department has waived all permitting fees so the need to permit additional storage units due to this proposed rule will not result in additional fee revenue for the Department. The scope of the cooperative agreement covers the ODEQ relationship with the Army's Program Manager for Chemical Demilitarization, but does not include provisions to authorize transfer and expenditure of funds for storage activities at UMCD. The authority for this cooperative agreement is 50 U.S.C. 1521(c)(3) which limits the scope of such agreement to the disposal of chemical agents and munitions. Furthermore, the cooperative agreement itself expressly states, in many sections, it is limited to the construction, operation and closure of the stockpile facility and nonstockpile activities in Oregon. See Sections II, III.A, III.C, IV.A.2. The use of funds by ORDEQ, which have been provided under the cooperative agreement, for storage activities at UMCD would be in violation of 50 U.S.C. 1521(c)(3) and the cooperative agreement. Therefore, unless ORDEQ waives the permitting fee for the storage activities at UMCD, this proposed rule will result in additional fee revenue for the Department.

Specific Comments

The following specific comments are provided to help clarify the specific requirements of the pending regulation, which will help the Army plan and execute to meet the State's compliance goals.

1. A number of terms are used in the proposed language but are not defined in this proposal, the memorandum that accompanied the proposal, nor are they defined elsewhere in the ODEQ regulations for hazardous waste management. These terms, and recommended definitions for those terms, include:
   a) Chemical agent and munitions: As defined in 50 U.S.C. section 1521(j)(1) the term "chemical agent and munition" means "an agent or munition that, through its chemical properties, produces lethal or other damaging effects on human beings, except that such term does not include riot control agents, chemical herbicides, smoke and other obscuration materials." Included in this definition are configured munitions (e.g., in rockets, bombs, or shells) and bulk containers containing chemical agents.
   b) Bulk containers are steel containers with a capacity of 170 gallons, filled or partially filled with a chemical agent. Bulk containers are not configured with an

explosive charge or other dispersing mechanism. Research chemical agents used in analytical processes are not considered bulk agents and are not stored in bulk containers.

c) Ambient air: The air located outside of an engineered structure or location used for the storage of chemical agents or munitions classified as hazardous waste. The air within such a unit is not considered "ambient air."

2. On page 3 the memorandum that accompanied the proposal specifically mentioned "nerve agents VX and GB [Sarin] and blister agent HD [mustard]." Use of this military-specific nomenclature is imprecise for a rulemaking and does not allow easy cross-referencing to other lists of regulated chemicals. It is recommended that ODEQ identify these chemicals by their specific chemical name and Chemical Abstracts Service Registration Number (CASRN) to help avoid any possible confusion over the materials being addressed. For these three chemical warfare agents, the correct terminology would be:

   a) VX: no common name; methylphosphonothioic acid S-[2-[bis(1-methylethyl)amino]ethyl] O-ethyl ester; CASRN 50782-69-9.

   b) GB: common name – Sarin; Isopropyl methylphosphonofluoridate; CASRN 107-44-8.

   c) HD: common name - Mustard agent – Bis (2-chloroethyl)sulfide; CASRN 505-60-2.

3. Proposed OAR 340.104.1201(1)(a) states that "Storage unit operations and management plans...must be approved by the Department." Since specific operational and management procedures and standards are not detailed in the proposal, such a provision has a potential to create conflicts between the Department of Defense Explosive Safety Board (DDESB) regulations, published pursuant to Federal law (see 10 U.S.C.§172) and ODEQ's unwritten requirements. The ODEQ proposal must recognize there are other applicable regulatory requirements that ODEQ has not been granted authority to waive or amend. In cases where multiple regulatory bodies have authority, they must work to ensure consistency in the approach.

4. Section 340-104-1201(1)(b) of the proposal requires that: "Vapor containment mechanisms for nerve agent (GB and VX) storage units will consist of, at a minimum, some form of carbon filtration." First, since ODEQ will have to approve any management plan for the storage of waste chemical agents and munitions it seems unnecessary to prescribe any form of "vapor containment" in the regulation. Doing so not only suggests that such systems must have carbon filtration in addition to any other devices, it will make it difficult to change the mechanism for vapor containment if a better mechanism becomes available. Even though carbon filtration is a known and proven technology, other technologies may become available that would reduce the amount of waste generated and/or increase the longevity of the filtration devices. In addition, it is possible that the Army may elect

to seal the igloos to meet the no migration criteria and phase in the installation of carbon filtration. As the sealing of the igloos would meet the intent of the "no migration" goals, it would not be compliant with the proposed regulation since the language specifies the use of carbon filtration. A more precise statement of the apparent objective of ODEQ would be: "The design and operation of the devices, structures, or locations used for the storage of waste chemical agents and munitions shall ensure that no detectable concentration of chemical agents is released to the ambient air."

5. The proposed section 340-104-1201(3)(a) establishes the "no migration" standard as "... no detectable concentration of agent outside the containment mechanism of the storage unit, as measured by the sampling and analytical methods specified in the approved management plan." The Army proposes a clearer definition of "no migration" to be " No detectable concentration of chemical agents is emitted outside of engineering controls to ambient air" Further, to specify the sampling and analytical methods to be used in facility's "approved management plan" restricts the ability to bring new analytical devices into use since any change in analytical devices would trigger a requirement to amend the approved management plan (often a lengthy and burdensome administrative process). Moreover, under other provisions of the OAR, ODEQ "... will not consider approving a testing or analytical method until it has been approved by EPA" (see OAR 340-100-0021(3) and 340-102-0011 (2(d)(A)). Experience has shown that EPA approval of new analytical methods typically takes several years. This raises the question of whether ODEQ will accept the existing analytical methods in use at UMCD or whether ODEQ will require the Army to develop new analytical methods. Further, no matter what sampling and analytical method is used, will ODEQ approve the sampling analytical methods without EPA approval of these processes? Because of these considerations, a better approach would be to specify the current detectable concentration of such systems (i.e., for GB 0.000025 mg/m^3 (less than 4.5 parts per trillion (ppt)), for VX 0.0000025 mg/m^3 (less than 0.25 ppt) and for HD 0.00075 mg/m^3) (less than 120 ppt) and require that any system used for this purpose would have to be able to reliably and consistently achieve or exceed (i.e. detect at a lower concentration) that limit.
6. OAR 340-104-1201(3): The use of the term contaminant is confusing here because it is not defined and inconsistent with follow-on provisions which only reference chemical agent. Recommend deleting the word "contaminant" from this section.
7. Section 340-108-0010 proposes a reportable quantity for releases of chemical agents in two different ways. For releases to land or water the trigger is "any quantity" while for releases to "ambient air" the trigger is "any detectable concentration." First, the terms "land or water" and "ambient air" are undefined. The Army interprets these requirements to mean detectable releases outside of engineering controls and would exclude detectable quantities that are detected inside the engineering controls. Clarification of the terms is suggested. Alternative language for this section could include, "Any detected concentration of a chemical

agent released outside of engineering controls to the environment from a hazardous waste treatment, storage, or disposal facility." The reportable quantities could be set at five times the detection limit which would be: GB 22.4 ppt, VX 1.25 ppt, and HD 600 ppt. These levels would be approximate to the time weighted average for 8 hr worker safety exposure limits and would provide high degree of safety when detecting and reporting releases.

State of Oregon
Department of Environmental Quality Memorandum

To: Environmental Quality Commission **Date:** February 16, 2001

From: Thomas G. Beam, P.E. Thomas G Beam
Senior Environmental Engineer
Chemical Demilitarization Program

Subject: Changes to Original Rulemaking Proposal Made in Response to Public Comments

This memorandum describes the changes made to the original rulemaking proposal in response to public comments. Every change, no matter how small, is identified, along with the reason why. Additional discussion on some of these changes can also be found in specific Department responses to the public comments (Attachment D).

OAR 340-101-0030 Chemical Agent Munitions and Chemical Agent Bulk Items

Final Proposal: "Notwithstanding any otherwise applicable provisions of 40 CFR 260 to 270, or other provisions of these rules, chemical agent munitions and chemical agent bulk items in storage as of the effective date of this rule are residues, and listed hazardous wastes assigned the appropriate waste codes in OAR 340-102-0011(2)(c)(A)(i) and (ii)."

Original Proposal: "Notwithstanding any otherwise applicable provisions of 40 CFR 260 to 270, or other provisions of these rules, all chemical agent munitions and bulk items shall be considered to be both a residue as defined in OAR 340-100-0010(bb) and a listed hazardous waste in accordance with the provisions of OAR 340-102-0011."

Reason for Change: The phrase "chemical agent munitions and bulk items" in the title and rule language was clarified to indicate that the Department's intent was to address both "chemical agent munitions" and "chemical agent bulk items." In order to avoid an unenforceable, overbroad classification inconsistent with the Department's stated basis for asserting authority over these materials, the original proposal to designate ALL chemical agent munitions and bulk items as solid and hazardous waste was scaled back to only encompass those currently in storage within Oregon. Original references to the definition of "residue" in OAR 340-100-0010 and the hazardous waste determination process in OAR 340-102-0011 were deleted to avoid creating a circular contradiction of the assertion provided in this rule. A specific reference to a portion of OAR 340-102-0011 was

added to clarify what the assigned state-only waste codes will be for these newly-designated hazardous wastes.

OAR 340-104-1201(1)

Final Proposal: "The following provisions are added to and made part of the design and operating standards in 40 CFR 264 Subpart EE for units used for the storage of chemical agent munitions and chemical agent bulk items:"

Original Proposal: "The following provisions are added to and made part of the design and operating standards in 40 CFR 264 Subpart EE for units used for the storage of chemical agent munitions and bulk items at the Umatilla Chemical Depot:"

Reason for Change: The specific reference to the Umatilla Chemical Depot was deleted to clarify that the proposed rule is applicable to all storage of chemical agent munitions and chemical agent bulk items in the State of Oregon, not just to the Army's operations. The phrase "chemical agent munitions and bulk items" was clarified to indicate that the Department's intent was to address both "chemical agent munitions" and "chemical agent bulk items."

OAR 340-104-1201(1)(a)

Final Proposal: "No later than April 30, 2001, a storage unit operations and management plan, including a description of applicable vapor and liquid chemical agent containment mechanisms, and monitoring/inspection programs, must be submitted to the Department for approval; and"

Original Proposal: "Storage unit operations and management plans, including a description of applicable vapor and liquid chemical agent containment mechanisms, and monitoring/inspection programs, must be approved by the Department; and"

Reason for Change: Significant concern was expressed over the timeframes for implementation of the proposed rules, and that there be an expeditious effort to bring facilities storing chemical agent munitions and chemical agent bulk items into compliance with the rules. The Department has established an April 30, 2001 deadline for affected facilities to submit the required management plan. The Department will use its review and approval of the management plan to ensure a quick implementation of the necessary changes to come into compliance.

OAR 340-104-1201(1)(b)

Final Proposal: "Storage units used for the storage of nerve agent (such as GB and VX) must be equipped with vapor containment mechanisms."

Original Proposal: "Vapor containment mechanisms for nerve agent (GB and VX) storage units will consist of, at a minimum, some form of carbon filtration."

Reason for Change: The specific requirement for carbon filtration as a vapor containment mechanism on nerve agent storage units was deleted in response to concerns that it was too restrictive and did not allow other potential superior options that would meet the Department's expectations and comply with the criteria for "no migration." The parenthetical clarification was revised to more clearly indicate that references to GB and VX are meant to provide an illustrative example of "nerve agents" and are not meant to limit the scope of the requirement to just those nerve agent types, which are not specifically defined in the proposed rules.

OAR 340-104-1201(2)

Final Proposal: "The provisions of 40 CFR 264.1201(b)(3) are deleted for purposes of storage of chemical agent munitions and chemical agent bulk items."

Original Proposal: "The provisions of 40 CFR 264.1201(b)(3) are deleted for purposes of storage of chemical agent munitions and bulk items at the Umatilla Chemical Depot."

Reason for Change: The specific reference to the Umatilla Chemical Depot was deleted to clarify that the proposed rule is applicable to all storage of chemical agent munitions and chemical agent bulk items in the State of Oregon, not just to the Army's operations. The phrase "chemical agent munitions and bulk items" was clarified to indicate that the Department's intent was to address both "chemical agent munitions" and "chemical agent bulk items."

OAR 340-104-1201(3)

Final Proposal: "As used in 40 CFR 264.1201(f) for purposes of storage of chemical agent munitions and chemical agent bulk items, 'no migration' of chemical agent from the storage unit shall mean:"

Original Proposal: "As used in 40 CFR 264.1201(f), 'no migration' of chemical agent contaminants from the storage unit shall mean:"

Reason for Change: The requirements of 40 CFR 264.1201 are applicable to the storage of any type of explosives or munitions, not just to chemical agent munitions. The proposed rule language was revised to clarify that the Department's intent with this rulemaking is related only to the storage of chemical agent munitions and chemical agent bulk items. The word "contaminant" was deleted from the proposed rule language to avoid inconsistency with other references in the remainder of the proposed rule to just "chemical agent."

OAR 340-108-0002(9)(b)

Final Proposal: "Substances and wastes listed in 40 CFR Part 302 – Table 302.4 (List of Hazardous Substances and Reportable Quantities) and amendments adopted prior to May 1, 1987; and"

Original Proposal: None

Reason for Change: This is an editorial correction only. Due to the addition of (9)(c) below, the word "and" was added to the end of this section to reflect the addition of a new component of the definition of "Hazardous Material" in OAR 340-108-0002(9).

OAR 340-108-0002(9)(c)

Final Proposal: "Chemical agents (such as nerve agents GB and VX, blister agent HD, etc.)"

Original Proposal: None

Reason for Change: A concern was expressed that the revised reportable quantity definitions below [OAR 340-108-0010] for chemical agents would not be enforceable since they are only applicable to hazardous materials and the definition of hazardous material does not include chemical agents. The addition of chemical agents as a new component of the definition of hazardous materials will eliminate this potential inconsistency.

OAR 340-108-0010(1)(c)

Final Proposal: "If spilled on the surface of the land, any quantity of oil over one barrel (42 gallons);"

Original Proposal: None

Reason for Change: This is an editorial correction only. The word "and" was deleted at the end of this rule to more clearly reflect that the next entry is not the last component of the definition of "reportable quantity."

OAR 340-108-0010(1)(d)

Final Proposal: "An amount equal to or greater than the quantity listed in 40 CFR Part 302 – Table 302.4 (List of Hazardous Substances and Reportable Quantities) and amendments adopted prior to May 1, 1987;"

Original Proposal: None

Reason for Change: This is an editorial correction only. The punctuation at the end of this rule was revised from a period to a semi-colon to more clearly reflect that the next entry is not the last component of the definition of "reportable quantity."

OAR 340-108-0010(1)(e)

Final Proposal: "Any quantity of chemical agent (such as nerve agents GB or VX, blister agent HD, etc.); and"

Original Proposal: "(A) If spilled onto the surface of the land or into the waters of the state, any quantity of chemical agent; or (B) If released to the ambient air, any detectable concentration of chemical agent."

Reason for Change: The original two-part definition of a reportable quantity for chemical agent was revised to reflect a single standard for what is considered a reportable quantity subject to spill reporting. The revision also eliminates the use of phrases such as "ambient air" and "any detectable concentration" which were not adequately defined for spill reporting purposes. Despite objections from the U. S. Army, use of "any quantity" was retained as consistent with past Department practice for other types of materials subject to spill reporting (e.g. radioactive material and waste). The parenthetical clarification was added to provide illustrative examples of types of chemical agent subject to this definition.

State of Oregon

Department of Environmental Quality Memorandum

Date: February 16, 2001

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item F, EQC Meeting March 9, 2001

Statement of Purpose

Information report to the Commission on efforts to coordinate with federal agencies on Clean Water Act and Endangered Species Act implementation in Oregon.

Background

Recognizing the potential for regulatory confusion and overlapping authorities between the Clean Water Act and the Endangered Species Act, DEQ established a new staff position of ESA Coordinator in June of 2000 to work with federal agencies and develop a more coordinated working relationship. During the last 5 months, DEQ has worked with EPA, the National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (USFWS) to develop a series of working agreements.

A draft of the first of those working agreements (attached) is intended to ensure that Oregon's Water Quality Standards are protective of listed species and serve as the water quality benchmark for both the Clean Water Act and the Endangered Species Act. Put another way, we wish to ensure that there is one set of water quality standards in the state of Oregon, rather than two or three.

The draft agreement includes the following points:

- Reaffirms the Triennial Review as the process for establishing or revising water quality standards in Oregon and that standards going through Triennial Review will be subject to ESA consultation. These will therefore be considered protective for the purposes of both the ESA and CWA

- Consultation at the national level and for other states or tribes will be acknowledged and utilized to the full extent possible, for species listed in the state of Oregon.

- EPA and DEQ may jointly request a "Conservation Review" of any standards that remain questionable with respect to their protectiveness of listed species. This Conservation Review (under Section 7(a)(1) of the ESA) will identify any standards

which the Services feel may not be protective of listed species.

Authority of the Commission with Respect to the Issue

No action is requested of the Commission.

Alternatives and Evaluation

The two alternatives not chosen are: (1) to wait for action at the federal national level, which could extend the uncertainty about Oregon's standards for several years, or (2) attempt a more formal programmatic agreement with the fisheries services, which could also take considerable time and more staff resources than we have available. The proposed agreement will provide a high level of certainty about Oregon's standards within a relatively short time.

Summary of Public Input Opportunity

The draft document has been reviewed with the Triennial Review Advisory Committee at its January 17 meeting, as well as other stakeholders. Any revisions to Oregon's Water Quality Standards will need to go through the Triennial Review process and formal rulemaking, which will include formal opportunity for public comment.

Conclusions

We believe that this agreement is an important first step in improving coordination of Endangered Species Act and Oregon's implementation of the Clean Water Act. Oregon has also been participating with similar efforts at both the regional level and the national level.

Intended Future Actions

Once the Biological Opinion is completed on the Idaho Standards Consultation, and the Biological Assessment is completed on the Warm Springs Standards, the Department intends to review that work, and then develop a request for a Conservation Review of from the Federal Services, in coordination with EPA. Any Oregon Standards identified by the Federal Services during that Conservation Review as potentially unprotective of listed species, would be considered for revision during the next Triennial Review.

The Department will also be working with the federal agencies to coordinate as appropriate on other matters, such as TMDLs and Water Quality permits.

Department Recommendation

It is recommended that the Commission accept this report, discuss the matter, and provide advice and guidance to the Department as appropriate.

Attachments

Attachment A: Draft ESA/CWA Agreement on Water Quality Standards

Approved:

Section: Steve Greenwood

Division: Stephanie Hallock

Report Prepared By: Steve Greenwood

Phone: 541-686-7838, ext. 224

Date Prepared: February 16, 2001

DRAFT
ESA/CWA AGREEMENT
ON WATER QUALITY STANDARDS
2/16/01

Over the past six months, the National Marine Fisheries Service (NMFS), US Fish and Wildlife Service (USFWS), the federal Environmental Protection Agency (EPA), and Oregon's Department of Environmental Quality (DEQ) have been meeting to better coordinate implementation of the Endangered Species Act (ESA) and the Clean Water Act (CWA) in the state of Oregon. Recognizing the potential for confusion caused by overlapping authorities, the agencies are attempting to provide a greater degree of regulatory clarity.

Toward this end, our first priority is to better ensure that Oregon's adopted Water Quality Standards are protective of listed species and serve as a benchmark for compliance with both the CWA and the ESA. The agencies have agreed to a process, outlined below, to reach that goal. For our purposes here, we make a distinction between the *numeric criteria* in the standards (the subject of this agreement) and the *implementation* of the standards.

The regulatory context.

First, water quality standards in Oregon are adopted through a process call Triennial Review that includes both technical review and policy review by persons outside DEQ, ultimately adopted by EQC, and approved by EPA. With the recent salmonid listings, EPA's approval is only after consultation with the federal fisheries services. More than 140 separate numeric and narrative criteria have been adopted as part of OAR Chapter 340 Division 41. Under the Clean Water Act, standards are based upon protection of beneficial uses of water, which includes salmon rearing and spawning, where appropriate. Many of Oregon's standards are taken directly from federally adopted criteria.

Second, we recognize that for existing standards, which previously received EPA review, there is no federal nexus and thus no requirement or authority for formal consultation on those standards under Section 7 of the ESA. Even if there were, practically speaking, there simply aren't the resources to do a formal consultation on all of the existing water quality standards in Oregon.

Third, a recently signed Memorandum of Agreement between EPA and the federal Services calls for a national consultation on the 45 standards for which there are aquatic life criteria. This may in fact happen, but the recent change in administrations raises uncertainty about the schedule for implementation of the MOA, and doing a national consultation on standards brings another level of complexity to the task, which could take many years. Similarly, the Umatilla and Warm Springs Tribes in Oregon have submitted a full slate of water quality standards (essentially the same as Oregon's) to EPA for approval, and that review will require consultation. The Regional offices of EPA and the

Federal Services intend to begin a consultation soon on a number of the standards submitted by the Warm Springs Tribes that could be utilized for Oregon's standards.

Fourth, consultation on water quality standards has already taken place in both California and Idaho for many of the same species and parameters. Again, we should not duplicate those efforts and will utilize, as much as we can, the work done in those states.

Inter-Agency approach to WQ Standards in Oregon

The problem we face is how to provide regulatory clarity and common goalposts, given our resource constraints and the lack of a federal nexus to trigger formal consultation on existing standards. We believe the protocol outlined below will go a significant distance toward meeting that goal.

1. During Oregon's last triennial review, the following standards were approved after consultation with the fisheries services: Bacteria, pH, and Dissolved Oxygen. These standards are therefore considered protective for purposes of the both the CWA and ESA.

2. There are also ten (possibly more) water quality standards being reviewed as part of the current Triennial Review process: including Temperature, pH for the Crooked River sub-basin, and eight criteria pollutants.

    - The federal Services have committed to participate in the standards review process, so that any problems in terms of ESA concerns are identified and can be addressed prior to adoption of the standards.

    - Participation by the Services in the Triennial Review process should, hopefully, result in the new standard being "unlikely to adversely affect" listed species, in which case the standard would be subject to informal consultation with the Services. Those adopted with a "likely to adversely affect" finding will require formal consultation with the Services. In either case, EPA approval and consultation will ensure that the standards constitute "no jeopardy" to listed species and are thus considered protective for both the ESA and the CWA.

3. The Biological Opinion is expected on a standards consultation (for 23 Criteria Pollutants) in the state of Idaho before the end of 2001. Additionally, a Biological Assessment for consultation on standards submitted by the Confederated Tribes of Warm Springs is expected within the same time frame. These two documents should provide a very strong indication of the protectiveness of Oregon's 45 aquatic life criteria.

    - EPA has developed aquatic life criteria for the 45 parameters that represent the greatest potential impact to salmonids and other aquatic life. This list of 45 are considered the parameters of greatest concern and have been identified in the

recently signed Memorandum of Agreement between EPA and the Federal Services.

- The Idaho and Warm Springs consultations together will cover the 45 parameters for which there are aquatic life criteria.

4. DEQ and EPA will jointly request a "Conservation Review" under Section 7 (A) (1) of the Endangered species act for Oregon's Water Quality standards, subsequent to the completion on the Biological Opinion for Idaho and the Biological Assessment for the Confederated Tribes of Warm Springs. The scope of that Conservation Review will be determined by the results of those consultations, the level of uncertainty regarding the protectiveness of Oregon's standards, and the potential for impact to listed species.

5. Any Oregon standards found in the Conservation Review or through other consultations to be unprotective of listed species would be submitted to DEQ for the next Triennial Review process. The Oregon DEQ is committed to address those standards within the next 3 Triennial Reviews, on the following basis:

   - DEQ will prioritize the review of those standards in the context of other standards requiring review, with high priority to those standards clearly putting salmonid species in jeopardy and for which there are 303(d) listings.

   - To more efficiently utilize resources, DEQ may elect to not undergo a review of a standard being concurrently reviewed by the federal Services as part of a Section 7 Consultation, as part of the Tribal submittals, other states, or the national consultation process.

   - Standards revised as part of the Triennial Review process will, of course, be subject to the same process of review and consultation as was described under point #2, above.

6. Throughout the process, the federal and state agencies involved in this agreement are committed to work together, share information, and ensure the protection of listed species and other beneficial uses. Should new information come to light at any time which casts doubt on the protectiveness of a standard, the federal services are encouraged to submit that information to DEQ so that parameter can be addressed during the next Triennial Review process. Any permits, certifications, or TMDLs affected will be subject to revision, pending the outcome of the Triennial Review process.

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

Date: February 14, 2000

To: Environmental Quality Commission

From: Stephanie Hallock S. Hallock

Subject: Agenda Item G, Repeal of OAR 340-41-0470(9) - The Tualatin Sub-basin TMDL Rule for Total Phosphorus and Ammonia, EQC Meeting March 8-9, 2001

Background

On October 3, 2000, the Director authorized the Northwest Region to proceed to a rulemaking hearing on the proposed repeal of Oregon Administrative Rule (OAR) 340-41-0470(9) which is the Tualatin Sub-basin Total Maximum Daily Load (TMDL) Rule for Total Phosphorus and Ammonia.

Pursuant to the authorization, a hearing notice was published in the Secretary of State's Bulletin on November 15, 2000. The Hearing Notice and informational materials were mailed to the mailing list of those persons who have asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by, or interested in, the proposed rulemaking action in the Tualatin Sub-basin.

A Public Hearing was held on December 18, 2000 with Neil Mullane serving as Presiding Officer. Written comment was received through December 19, 2000. The Presiding Officer's Report (Attachment C) summarizes the oral testimony presented at the hearing and the written comments received. (Written comments received are included in Attachment C)

Department staff have evaluated the comments received (Attachment D). Based upon that evaluation, modifications to the initial repeal proposal are being recommended by the Department. These modifications are summarized below and detailed in Attachment E.

The rule repeal was presented to the Commission at its January 12, 2001 meeting in Bend. The Commission deferred taking action at that meeting as the revised Tualatin TMDL had not yet been sent to EPA for their review and approval. It was anticipated that the TMDL would be submitted to EPA and their action would be known by the March 8-9, 2001meeting. The EQC felt it would be better to defer to the March meeting so that EPA's actions would be known.

The Department submitted the revised Tualatin TMDL to EPA on January 31, 2001. At the time this report was written, EPA action on the TMDLs was not known.

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

Issue this Proposed Rulemaking Action is Intended to Address

This proposal would repeal OAR 340-41-0470(9). OAR 340-41-0470(9) established the following, in 1988, by rule:

- the total phosphorus and ammonia Total Maximum Daily Loads (TMDLs), expressed in terms of monthly median concentrations at the mouths of tributaries and along the mainstem of the Tualatin River (which were submitted to the Environmental Protection Agency (EPA) and subsequently approved);
- requirements for program plans to be submitted to the Department; and
- a date for achieving the concentrations.

The Department proposes to repeal this rule as it is redundant and covered under other authorities. When submitted to EPA, the TMDLs are in the form of a Department Order. As required under the Federal Clean Water Act (CWA), TMDLs are approved by EPA and Waste Load Allocations are assigned to point sources by the Department and incorporated into NPDES permits. Load Allocations for forest operations on private and state forest lands are implemented through rules adopted by the Board of Forestry under the Forest Practices Act (ORS 468B.110; 527.765; 527.770). Load allocations for agriculture are implemented through Agricultural Water Quality Management Area Plans developed by the Oregon Department of Agriculture or other statutorily available authority (ORS 561.191; 568.900 to 568.933). Other Load Allocations are implemented by the Department or by federal or local agencies.

The Department has reviewed public comment on revised TMDLs in the Tualatin Sub-basin for phosphorus and ammonia and new TMDLs for temperature, bacteria and volatile solids. Modified TMDLs for phosphorus and ammonia along with the new TMDLs for temperature, bacteria and volatile solids have been submitted to EPA on 1/31/01 for their approval. The Department is proposing to repeal OAR 340-41-0470(9). This would be effective as of EPA approval of the revised TMDLs for phosphorus and ammonia.

Relationship to Federal and Adjacent State Rules

Establishment of TMDLs is in accordance with Section 303 of the Clean Water Act and 40 CFR, part 130.7 and OAR 340-41-026(4)(d). OAR 340-41-0470(9) was originally developed to implement TMDLs for phosphorus and ammonia in the Tualatin Sub-basin in 1988.

Authority to Address the Issue

The 1988 rules promulgated by the EQC amend OAR 340-41-470 by establishing instream criteria (TMDLs) for both total phosphorus and ammonia-nitrogen at various locations on the main stem Tualatin River and at the mouths of selected tributaries.

Establishment of TMDLs is in accordance with Section 303 of the Clean Water Act and 40 CFR, part 130.7 and OAR 340-41-026(4)(d). ORS 468B.020, ORS 468B.035 and ORS 468B.048 provide authority for implementation of the Clean Water Act and the setting of water quality standards. ORS 183.310 to 183.550 provide authority to adopt, modify or repeal rules for the administration of water quality standards.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

The proposed repeal of OAR 340-41-0470(9) was developed by the Department of Envirnoment Quality and draws upon the following documents:

1. Memorandum of Agreement between the United States Environmental Protection Agency and the State of Oregon Department of Environmental Quality Regarding the Implementation of Section 303(d) of the Federal Clean Water Act. February 1, 2000.
2. Consent Decree between Northwest Environmental Defense Center (NEDC) and Northwest Environmental Advocates (NWEA) vs Carol Browner, Administrator of the United States Environmental Protection Agency. May 2000.
3. EQC Agenda Item O, Status Report on the Establishment of TMDLs, December 13, 1990.

The Department will be developing general rules for TMDL development and implementation in 2001 that will draw upon much that has been agreed upon in the MOA with EPA. An advisory committee will be used in that process.

Alternatives to repealing OAR 340-41-0470(9) include:

- Taking no action until after EPA approves the revised TMDLs for phosphorus and ammonia. The rule could either be repealed or modified to incorporate new values approved by EPA and a set of actions after EPA approval of the revised TMDLs.

Pending timely action by EPA in the review of the Tualatin TMDL, the Department may be proposing a rule repeal just after EPA approval. The Department did not initially choose this option as there could be a period of time where two sets of numbers would be in place (the EPA approved numbers based on the revised TMDLs and numbers that are currently in OAR 340-41-0470(9)) which would be confusing for implementation. Work on rule revision or repeal after EPA approval would delay work on incorporating new and revised TMDLs in the management plans and permits. The Department discussed the issue of establishing TMDLs by rule with the Commission in 1990. At that time, the Commission agreed to a process whereby the Department would establish TMDLs by Department Order and implementation would occur via permit modifications and other means, rather than through rulemaking. It would also allow the Department to approve program plans rather than the EQC The EQC concurred with this course of action and the Department has been developing TMDLs under this process since that period of time. Repealing the Tualatin Sub-basin TMDL rule rather than implementing by rule is consistent with this approach.

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

The proposal to repeal OAR 340-41-0479(9) can be found in Attachment B. In 1988, the EQC approved rules (OAR 340-41-0479(9)) which established limits for total phosphorus and ammonia concentrations in the Tualatin and its major tributaries. These rules established concentration limits that were not to be exceeded between May 1 and October 31 for Total Phosphorus and May 1 and November 15 for Ammonia. The rule established dates for implementation and set up timeframes for developing guidance by the Department and for submitting program plans by specified management agencies. The Tualatin TMDLs were the first of many TMDLs that have been developed by the Department. Similar rules were developed for the Bear Creek (OAR 340-41-0385), Yamhill (OAR 340-41-0470 (10) and the Upper Grande Ronde (OAR 340-41-0745) Total Maximum Daily Loads.

In 1990, given the number of TMDLs that the Department would be developing at that time, the Department proposed the following process to the EQC which was discussed and accepted:

> *A new TMDL process is proposed which will reduce staff workload demands by reducing the involvement of the Commission in each individual TMDL decision if it is not necessary. To date, TMDLs and implementation schedules have been established by rule, and the program plans have been approved by the Commission. The new TMDL process would establish TMDLs and implementation schedules via permit modifications and memoranda of agreement, rather than through rulemaking. It would also allow Department staff to approve program plans.*
>
> *The new procedure for establishing TMDLs without rulemaking will be applicable only*

under the following conditions:

- *new instream water quality criteria are not required because existing standards are sufficient,*
- *Waste Load Allocations (WLAs) can be implemented through permits, and*
- *Load Allocations (LAs) can be implemented through Memoranda of Agreement with Designated Management Agencies (DMAs).*

Since that time (1990), the Department has committed to a more aggressive schedule for developing TMDLs. To date, there have been been 331 TMDLs developed for 14 waterbodies, watersheds or sub-basins (there are 91 sub-basins in Oregon). Of these, 146 TMDLs are covered by rule for the 4 sub-basins listed above. The Department is planning to complete more than 1,500 TMDLs on 1,158 Water Quality Limited Segments (WQLS) in 91 sub-basins by 2007.

In approving TMDLs, EPA looks for "reasonable assurance" that the TMDLs will be implemented. DEQ has agreed to provide Implementation Plans (under its MOA with EPA) with the TMDLs as they are submitted to EPA. Generally, reasonable assurance for point sources is provided through National Pollutant Discharge Elimination System (NPDES) permits. For nonpoint sources, assurances can be regulatory, non-regulatory or incentive-based, consistent with applicable laws and programs.

Since the adoption of the Tualatin Sub-basin TMDL rule, additional authorities have been developed for implementing WLAs through permits and LAs through the authorities of other agencies. These authorities include:

NPDES Permit Authority for Municipal and Industrial Storm Water: The 1972 Amendments to the Federal Water Pollution Control Act (Clean Water Act or CWA) prohibit the discharge of any pollutant to waters of the United States from a point source unless the discharge is authorized by a NPDES Permit. The NPDES permitting program is designed to track point sources, monitor the discharge of pollutants from specific sources to surface waters, and require the implementation of the controls necessary to minimize the discharge of pollutants. Initial efforts to improve water quality under the NPDES program primarily focused on reducing pollutants in industrial process wastewater and discharges from municipal sewage treatment plants.

In 1987, the CWA was again amended by Congress to require implementation of a comprehensive national program for addressing problematic non-agricultural sources of storm water discharges. As required by the amended CWA, the NPDES Storm Water Program is being implemented in two phases:

Phase I, developed by EPA in 1990, required NPDES permits for:

- storm water discharges from municipal separate storm sewer systems (MS4) generally serving or located in incorporated areas with populations of 100,000 or more people; and
- eleven categories of industrial activity, one of which is construction activity that disturbs five acres or greater of land.

Phase II, developed by EPA in 1999, requires NPDES permit coverage for storm water discharges from certain regulated small MS4s (primarily all those located in urbanized areas) and construction activity disturbing between 1 and 5 acres of land.

Agricultural Implementation Authority: The Oregon Legislature authorized the Oregon Department of Agriculture (ODA) to be the lead state agency working with agriculture to address nonpoint source water pollution. In 1993, Senate Bill 1010 (ORS 568.900 - 568.933) or the Agricultural Water Quality Management Act was passed which authorizes ODA to develop and carry out a water quality management plan for any agricultural or rural lands area whenever a water quality management plan is required by state or federal law. One example of such a "trigger" for the planning process is a listing under section 303(d) of the federal CWA. OAR 340-41-0120(10) calls for a cooperative agreement between ODA and DEQ to implement these provisions.

Forestry Implementation Authority: Pollution control measures necessary to address forestry sources are implemented through the Forest Practices Program pursuant to ORS 527.765 as well as through voluntary landowner actions consistent with the Oregon Plan. The Forest Practices Program is implemented through best management practices adopted as administrative rules, operator/landowner education and assistance and rule enforcement through civil orders, civil penalties and, in extreme cases, criminal prosecution. The Oregon Department of Forestry is the Designated Management Agency for private and non-federal public forestlands. OAR 340-41-0026(9) and OAR 340-41-0120(11)(e) recognizes this arrangement.

Federal Lands Implementation: DEQ will work with federal agencies (e.g. USFS, BLM) to develop and modify water quality management plans to address waters listed on federal lands.

The Department has Memorandum of Understandings with these implementing agencies to undertake the work necessary to implement the TMDLs. In addition, portions of the Department's rules now specify management planning requirements (e.g. OAR 340-41-0026(3)(a)(D) and OAR 340-41-0120(11)(e) describes surface water temperature management plans; OAR 340-41-0026(3)(a)(I) and OAR340-41-0120(12-17) describe bacteria management plans) which were not in place when the Tualatin Sub-basin TMDL rule was originally adopted.

The Department is proposing to repeal OAR 340-41-0470(9) (Attachment A). The rationale for deleting the rule at this time is that:

- the TMDLs, which have been approved by EPA, and any modifications to these TMDLs, based on recent action initiated by the Department, can be implemented through Departmental Order;
- implementation planning requirements in the rule have expired and are covered through other authorities.

Summary of Significant Public Comment and Changes Proposed in Response

The Department received 6 written comments and one oral comment which was supported by written testimony. These can be found in Attachment C.

Significant issues raised in Public Comment include:

Several Designated Management Agencies requested that the *Tualatin Sub-basin Nonpoint Source Management Implementation/Compliance Schedule and Order for Designated Management Agencies (DMAs)* be extended effective December 31, 2000 with its expiration conconcurrent with the approval by EPA of the new TMDLs (Attachment F). This would be to address any potential liability arising from time gaps where the compliance order is not in effect and a new TMDL has not been approved:

> The Department feels that potential liability is low if the Compliance Order is not extended, as the rule is a seasonal rule which applies from May 1 to November 15 of each year. The Commission should take action on the rule at the March meeting, prior May 1 when the rule would again be in affect.
>
> The Compliance Schedule and Order that was developed in 1993 is referenced in the current Municipal Separate Storm Sewer System (MS4) Dicharge Permits. Pending EPA approval of the recently submitted TMDLs, the Department will begin to work with DMAs to revise the MS4 permits. The current permit conditions will still apply until new MS4 permits can be developed.

Several Designated Management Agencies requested to know the anticipated role of the EQC in the TMDL process particularly, as the TMDL would be required under Department Order rather than rule, would there be a procedure by which the order could be appealed to the EQC:

> The Department indicated to the EQC at its December 1, 2000 meeting (Agenda Item F, Total Maximum Daily Load (TMDL) Process and Update on the Tualatin TMDL) that it will be developing general rules regarding TMDLs that will clarify TMDL development and implementation. These rules will be based upon much that has been agreed upon in February 2000 MOA with EPA. The Department will be bringing these proposed rules to the EQC for

approval, likely towards the end of 2001. The Department will consider the EQC role in the development of these rules.

Implementation of TMDLs will occur through various management programs that are currently available – each with their own review process described by rule or statute. For example, in the case of waste load allocations being incorporated into permits, procedures for issuance, denial and modifications of permits are decribed in Divisions 14 and 45. An applicant can request a hearing before the EQC or its authorized representative if dissatisfied with the conditions or limitations.

Several environmental groups felt that it is premature to repeal the rule as the revised TMDLs have not yet been approved. They expressed concern that the revised TMDLs would not be quantifiable, enforceable and subject to a compliance schedule and felt the rule provided this assurance. They requested that the public comment period remain open until 30 days after EPA approval of the revised Tualatin TMDL:

The Department has proposed that rule repeal be effective upon EPA approval of the revised TMDLs. It is very likely that, pending timely action by EPA, the new TMDLs will be approved just prior to any repeal of the rule. TMDLs are required under the Clean Water Act and must meet federal regulations in order to be approved by EPA. Regulations require a description of the applicable standard, identification of the waterbody's loading capacity for the applicable pollutant and identification of WLAs for point sources and LAs for nonpoint sources. Reasonable Assurance that nonpoint source reductions must be explained and the Department has agreed to submit implementation plans with the TMDLs. The Department believes that EPA is in position and is required to make the judgment that the TMDLs, WLAs and LAs are properly quantified, enforceable and subject to a compliance schedule. Furthermore, judicial review of TMDLs is based on EPA's written decision and the administrative record supporting that decision.

Compliance schedules in permits would need to be within 5 years unless otherwise specified. In EPA's recent TMDL guidance (Federal Register Volume 65, Number 135, page 43668), the following timeframes are recommended:

- A schedule, which is as expeditious as practicable, for implementing the management meaures or other control actions to achieve load allocations in the TMDL within 5 years, when implementation within this period is practicable;
- For all impaired waterbodies, the implementation plan must be based on a goal of attaining and maintaining the applicable water quality standards within ten years whenever attainment and maintenance within this period is practicable.

The Department has not extended the comment period. The EQC may choose not to take action on the rule repeal at this time.

Several environmental groups felt that the repeal of the Tualatin Rule would weaken TMDL enforcement and that enforcement of the TMDL has been avoided through a series of extensions to the compliance schedule. Although DEQ may have the authority to enforce the TMDL through existing mechanisms, it has opted not to do so:

The Department does not believe that repeal of the rule would weaken TMDL enforcement. The enforcement mechanism for TMDLs is generally through the permit requirements or specified in statute and rule for Agricultural Water Quality Management Area Plans (ORS 561.191; 568.900 to 568.933) and under the Forest Practices Act (ORS 468.110; 527.765; 527.770).

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

The Department proposes to repeal this rule as it is redundant and covered under other authorities. When submitted to EPA, the TMDLs are in the form of a Department Order. As required under the Federal Clean Water Act (CWA), TMDLs are approved by EPA and Waste Load Allocations are assigned to point sources by the Department and incorporated into NPDES permits. Load Allocations for forest operations on private and state forest lands are implemented through rules adopted by the Board of Forestry under the Forest Practices Act (ORS 468B.110; 527.765; 527.770). Load allocations for agriculture are implemented through Agricultural Water Quality Management Area Plans developed by the Oregon Department of Agriculture or other statutorily available authority (ORS 561.191; 568.900 to 568.933). Other Load Allocations are implemented by the Department or by federal or local agencies.

Recommendation for Commission Action

It is recommended that the Commission repeal OAR 340-41-0470(9), effective as of EPA approval of the revised Tualatin Sub-basin TMDLs for phosphorus and ammonia, as presented in Attachment A of the Department Staff Report.

Attachments

A. Rule (Amendments) Proposed for Adoption
B. Supporting Procedural Documentation:
    1. Legal Notice of Hearing
    2. Memorandum from Public Notice
    3. Fiscal and Economic Impact Statement
    4. Land Use Evaluation Statement

5. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements

C. Presiding Officer's Report on Public Hearing

D. Department's Evaluation of Public Comment

E. Detailed Changes to Original Rulemaking Proposal made in Response to Public Comment

Reference Documents (available upon request)

1. Memorandum of Agreement between the United States Environmental Protection Agency and the State of Oregon Department of Environmental Quality Regarding the Implementation of Section 303(d) of the Federal Clean Water Act. February 1, 2000.
2. Consent Decree between Northwest Environmental Defense Center (NEDC) and Northwest Environmental Advocates (NWEA) vs Carol Browner, Administrator of the United States Environmental Protection Agency. May 2000.
3. EQC Agenda Item O, Status Report on the Establishment of TMDLs, December 13, 1990.

Approved:

Section: Andrew T Schaedel

Division: Andrew T Schaedel for WJH

Report Prepared By: Andy Schaedel

Phone: 503-229-6121

Date Prepared: 12/29/00

als
F:\TEMPLATE\FORMS\EQCRULE.DOT
10/19/95

ATTACHMENT A
PROPOSED REPEAL OF OAR 340-41-0470(9)

~~OAR 340-41-0470(9) 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 340-041-0150, 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 main stream 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:~~

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

~~(b)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 ammonia nitrogen at the mouths of the tributaries listed below and the specified points along the mainstream 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:~~

~~Mainstream (RM)~~	~~ug/l~~	~~Tributaries~~	~~ug/l~~
~~Cherry Grove (67.8)~~	~~30~~	~~Scoggins Creek~~	~~30~~
~~Dilley (58.8)~~	~~30~~	~~Gales Creek~~	~~40~~
~~Golf Course Road (52.8)~~	~~40~~	~~Dairy Creek~~	~~40~~
~~Rood Rd. (38.5)~~	~~50~~	~~McKay Creek~~	~~40~~
~~Farmington (33.3)~~	~~1000~~	~~Rock Creek~~	~~100~~
~~Elsner (16.2)~~	~~850~~	~~Fanno Creek~~	~~100~~
~~Stafford (5.4)~~	~~850~~	~~Chicken Creek~~	~~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 mainstream 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;~~

~~(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 growth 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 subsections (a) and (b) of this section;~~

~~(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 subsections (a) and (b) of this section. The program plans shall be submitted to the Department within 18 months of the adoption of this rule;~~

~~(i)Within 120 days of submittal of the program plans** and within 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 subsections (a), (b), and (c) of this section. 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 subsections (a) and (b) of this section;~~
~~(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 wastewater 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.~~

Attachment B – Supporting Procedural Documentation

Notice Of Public Hearing

Oregon Department Of Environmental Quality

Notice Issued: November 17, 2000

Close Of Comment Period: December 19, 2000
Public Hearings: December 18, 2000 2 p.m.

Repeal of Oregon Administrative Rule (OAR) 340-41-0470(9) The Tualatin Sub-basin TMDL Rule for Total Phosphorus and Ammonia

PUBLIC PARTICIPATION:

Public Hearing
A Public hearing will be held at:

2:00 p.m. on Monday, December 18, 2000 in Conference Room A/B on the fourth floor, Oregon DEQ NW Regional Office, 2020 SW 4th Ave, Portland, OR.

Written comments:
People do not need to attend the public hearing in order to submit comments. Written comments on the proposed repeal of OAR 340-41-0470(9) can be submitted at any time between the opening of the comment period (November 17, 2000) and the close of the comment period (December 19, 2000). All comments must be received at the Oregon Department of Environmental Quality by 5 p.m. on December 19, 2000. Written comments should be mailed to Oregon Department of Environmental Quality, Attn: Andy Schaedel, 2020 SW 4th Ave., Suite 400, Portland, OR 97201. ***People wishing to send comments via e-mail should be aware that if there is a delay between servers or if a server is not functioning properly, e-mails may not be received prior to the close of the public comment period.*** People wishing to send comments via e-mail should send them in Microsoft Word (through version 7.0), WordPerfect (through version 6.x) or plain text format. Otherwise, due to conversion difficulties, DEQ recommends that comments be sent in hard copy. The email address is:

schaedel.andrew.l@deq.state.or.us

WHO IS THE APPLICANT: Oregon Department of Environmental Quality

LOCATION: The Tualatin Subbasin includes all lands, public and private, draining to the Tualatin River or its tributaries from the confluence of the Tualatin and Willamette rivers at West Linn, Oregon upstream to the Tualatin River headwaters.

WHAT IS PROPOSED: The Department of Environmental Quality proposes to repeal OAR 340-41-0470(9). OAR 340-41-0470(9) established the following, in 1988, by rule:

- the total phosphorus and ammonia Total Maximum Daily Loads (TMDLs), expressed in terms of monthly median concentrations at the mouths of tributaries and along the mainstem of the Tualatin River (which were submitted to the Environmental Protection Agency (EPA) and subsequently approved);
- requirements for program plans to be submitted to the Department; and
- a date for achieving the concentrations.

The Department proposes to repeal this rule, as it is redundant and covered under other authorities.

As required under the Federal Clean Water Act (CWA), TMDLs are approved by EPA and Waste Load Allocations are assigned to point sources by the Department. Load Allocations for forest operations on private and state forest lands are implemented through rules adopted by the Board of Forestry under the Forest Practices Act (ORS 468B.110; 527.765; 527.770). Load allocations for agriculture are implemented through Agricultural Water Quality Management Area Plans developed by the Oregon Department of Agriculture or other statutorily available authority (ORS 561.191; 568.900 to 568.933). Other Load Allocations are implemented by the Department or by federal or local agencies.

The Department will ask the Environmental Quality Commission to time the effectiveness of the repeal to correspond with the promulgation and approval of the revised Tualatin TMDLs.

WHO IS AFFECTED:

Local public and private land owners and managers, industrial sources, public wastewater treatment facilities, cities and counties located within the Tualatin Subbasin, residents within the subbasin, persons interested in local water quality, and persons interested in the Department's implementation of Section 303(d) of the federal Clean Water Act.

As this rule change would repeal OAR 340-41-0470(9) but activities required under the TMDL would be carried out under other authorities currently available, the Department deems that there would be no fiscal and economic impact by the repeal of OAR 340-41-0470(9).

NEED FOR ACTION:

The Clean Water Act requires that TMDLs be established for waters that do meet state water quality standards. In Oregon, TMDLs are developed by the Department of Environmental Quality and submitted to EPA for approval. Initial TMDLs, developed in the 1980's were also established by rule with Tualatin Sub-basin rule (OAR 340-41-0470(9)) for total phosphorus and ammonia being the first rule established. In 1990, the Department proposed to the Environmental Quality Commission (EQC) to streamline the TMDL process to reduce staff workload demands and establish TMDLs and implementation schedules via permit modifications and memoranda of agreement, rather than through rulemaking. The Department is currently planning to complete more than 1,500 TMDLs throughout Oregon in 91 sub-basins by 2007. Since the Tualatin Rule was established, additional authorities for implementation of TMDLs have been established by federal or state authority including Storm Water Permits to control urban and industrial runoff and Agricultural Water Quality Management Act (SB1010) to address nonpoint source of pollution from agricultural activities. Therefore, the Tualatin Rule is not needed as other authorities cover it.

WHERE TO FIND DOCUMENTS:

Documents and related materials are available for examination at:

Oregon DEQ – Water Quality Program, NW Regional Office, 2020 SW 4th Ave., Suite 400, Portland, OR (503-229-5552).

While not required, scheduling an appointment will ensure documents are readily accessible during your visit. Documents are also available for viewing or down-loading from the DEQ Web Site: waterquality.deq.state.or.us/wq/

Any questions on the proposed actions may be addressed to Andy Schaedel at 503-229-6121, Rob Burkhart at 503-229-5566 or toll free within Oregon at 800-452-4011. People with hearing impairments may call DEQ's TTY at 503-229-5471.

WHAT HAPPENS NEXT:

DEQ will review and consider all comments received during the public comment period. Following this review, the rule repeal may be presented to the Environmental Quality Commission (targeting the January 11-12, 2001 EQC meeting) as is currently proposed, or in a modified form. You will be notified of DEQ's final decision if you present either oral or written comments during the comment period. Otherwise, if you wish to receive notification, please call or write DEQ at the above address to be placed on the mailing list.

ACCOMODATION OF DISABILITIES:

DEQ is committed to accommodating people with disabilities. Please notify DEQ of any special physical or language accommodations you may need as far in advance of the date as possible. To make these arrangements, 503-229-6232 or by calling toll free within Oregon at 800-452-4011. People with hearing impairments can call DEQ's TTY at 503-229-5471.

ACCESSIBILITY INFORMATION:

This publication is available in alternate format (e.g. large print, Braille) upon request. Please contact DEQ Public Affairs at 503-229-6232 or toll free within Oregon 1-800-452-4011 to request an alternate format. People with a hearing impairment can receive help by calling DEQ's TTY at 503-229-5471.

State of Oregon
Department of Environmental Quality Memorandum

Date: November 15, 2000

To: Interested and Affected Public

Subject: Rulemaking Proposal and Rulemaking Statements - Repeal of Oregon Administrative Rule (OAR) 340-41-0470(9)

This memorandum contains information on a proposal by the Department of Environmental Quality (Department) to ask the Environmental Quality Commission (EQC) to repeal OAR 340-41-0470(9). This notice is issued pursuant to ORS 183.335.

This proposal would repeal OAR 340-41-0470(9). OAR 340-41-0470(9) established the following, in 1988, by rule:

- the total phosphorus and ammonia Total Maximum Daily Loads (TMDLs), expressed in terms of monthly median concentrations at the mouths of tributaries and along the mainstem of the Tualatin River (which were submitted to the Environmental Protection Agency (EPA) and subsequently approved);
- requirements for program plans to be submitted to the Department; and
- a date for achieving the concentrations.

The Department proposes to repeal this rule as it is redundant and covered under other authorities.

As required under the Federal Clean Water Act (CWA), TMDLs are approved by EPA and Waste Load Allocations are assigned to point sources by the Department. Load Allocations for forest operations on private and state forest lands are implemented through rules adopted by the Board of Forestry under the Forest Practices Act (ORS 468B.110; 527.765; 527.770). Load allocations for agriculture are implemented through Agricultural Water Quality Management Area Plans developed by the Oregon Department of Agriculture or other statutorily available authority (ORS 561.191; 568.900 to 568.933). Other Load Allocations are implemented by the Department or by federal or local agencies.

The Department will ask the Environmental Quality Commission to time the effectiveness of the repeal to correspond with the promulgation and approval of the revised Tualatin TMDLs.

HEARING PROCESS DETAILS: The Department is conducting a public hearing during which comments will be accepted either orally or in writing. The hearing will be held as follows:

Date: December 18, 2000
Time: 2 PM
Place: Oregon Department of Environmental Quality, Northwest Region
2020 SW 4th Avenue, Portland, OR 97201-4987
Conference Room A/B on the 4th floor

Deadline for submittal of Written Comments: **5 PM December 19, 2000**

Written comments can be presented at the hearing or to the Department any time prior to the date above. Comments should be sent to:

Department of Environmental Quality, Northwest Region
Attn: Andy Schaedel
2020 S.W. 4th Avenue, Suite 4
Portland, Oregon 97201-4987.

In accordance with ORS 183.335(13), no comments from any party can be accepted after the deadline for submission of comments has passed. Thus if you wish for your comments to be considered by the Department in the development of these rules, your comments must be received prior to the close of the comment period. The Department recommends that comments be submitted as early as possible to allow adequate time for review and evaluation.

WHAT'S IN THIS PACKAGE?: Attachments to this memorandum provide details on the proposal as follows:

Attachment A Existing Tualatin Basin Total Phosphorus and Ammonia Rule
Attachment B Proposed Repeal of OAR 340-41-0470(9)

Attachment C The official statement describing the fiscal and economic impact of the proposed rule. (required by ORS 183.335)
Attachment D A statement providing assurance that the proposed rules are consistentwith statewide land use goals and compatible with local land use plans.
Attachment E Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.

WHAT HAPPENS AFTER THE PUBLIC COMMENT PERIOD CLOSES: Following close of the public comment period, a report will be develped which summarizes the oral and written testimony presented and Department responses. The Environmental Quality Commission (EQC) will receive a copy of the report.

The Department will review and evaluate the rulemaking proposal in light of all information received during the comment period. Following the review, the rule repeal may be presented to the EQC as originally proposed or with modifications made in response to public comments received.

The EQC will consider the Department's recommendation for the rule repeal during one of their regularly scheduled

public meetings. The targeted meeting date for consideration of this rulemaking proposal is January 11-12, 2001. This date may be delayed if needed to provide additional time for evaluation and response to testimony received in the hearing process.

You will be notified of the time and place for final EQC action if you present oral testimony at the hearing or submit written comment during the comment period. Otherwise, if you wish to be kept advised of this proceeding, you should request that your name be placed on the mailing list.

BACKGROUND ON PROPOSED REPEAL OF OAR 340-41-0470(9):

What is a TMDL: A Total Maximum Daily Load (TMDL) is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. Under Section 303(d) (33 USC Section 1313) of the Clean Water Act (as Amended by the Water Quality Act of 1987, Public Law 10-4), States are required to develop a prioritized list of waters not meeting water quality standards (this is called the 303(d) List) and submit it to the EPA for approval. States are also required to establish TMDLs for pollutants for the waters identified on the 303(d) list. TMDLs are to be submitted to EPA for approval. EPA generally takes 30 days to act on these submittals. If they disapprove, either the state modifies the TMDL to satisfy the concerns or EPA establishes the TMDL.

In Oregon, the Department of Environmental Quality (DEQ) has the responsibility for the designation of Water Quality Limited Segments and the establishment of TMDLs pursuant to Section 303(d) of the Clean Water Act. The Department has committed to a schedule for developing TMDLs for pollutants for all waterbodies on the 1998 303(d) List by 2007 as part of its Oregon Plan commitments and under a 2000 Memorandum of Agreement with EPA.

Development of Tualatin and other Sub-Basin TMDL Rules: In 1988, the EQC approved rules (OAR 340-41-0479(9)) which established limits for total phosphorus and ammonia concentrations in the Tualatin and its major tributaries (Attachment A). These rules established concentration limits that were not to be exceeded between May 1 and October 31 for Total Phosphorus and May 1 and November 15 for Ammonia. The rule established dates for implementation and set up timeframes for developing guidance by the Department and for submitting program plans by specified management agencies. The Tualatin TMDLs were the first of many TMDLs that have been developed by the Department. Similar rules were developed for the Bear Creek (OAR 340-41-0385), Yamhill (OAR 340-41-0470 (10) and the Upper Grande Ronde (OAR 340-41-0745) Total Maximum Daily Loads.

Number of TMDLs that DEQ will be developing: To date, there have been been 331 TMDLs developed for 14 waterbodies, watersheds or sub-basins (there are 91 sub-basins in Oregon). Of these, 146 TMDLs are covered by rule for the 4 sub-basins listed above. The Department is planning to complete more than 1,500 TMDLs on 1,158 Water Quality Limited Segment (WQLS) in 91 sub-basins by 2007. [Note: For the purposes of counting the number of TMDLs above, TMDLs were counted per pollutant and per WQLS, based on the 1998 303(d) List. For example, if a sub-basin had 4 WQLS, each of which is listed for 3 pollutants, a total of 12 TMDLs would be required.]

1990 EQC Item on TMDLs process that DEQ would be using: In 1990, given the number of TMDLs that the Department would be developing at that time, the Department proposed the following process to the EQC which was discussed and accepted:

A new TMDL process is proposed which will reduce staff workload demands by reducing the involvement of the Commission in each individual TMDL decision if it is not necessary. To date, TMDLs and implementation schedules have been established by rule, and the program plans have been approved by the Commission. The new TMDL process would establish TMDLs and implementation schedules via permit modifications and memoranda of agreement, rather than through rulemaking. It would also allow Department staff to approve program plans.

The new procedure for establishing TMDLs without rulemaking will be applicable only under the following conditions:

- *new instream water quality criteria are not required because existing standards are sufficient,*
- *Waste Load Allocations (WLAs) can be implemented through permits, and*
- *Load Allocations (LAs) can be implemented through Memoranda of Agreement with Designated Management Agencies (DMAs).*

Since that time (1990), the Department has committed to a more aggressive schedule for developing TMDLs.

Methods for TMDL Implementation: In approving TMDLs, EPA looks for "reasonable assurance" that the TMDLs will be implemented. DEQ has agreed to provide Implementation Plans (under its MOA with EPA) with the TMDLs as they are submitted to EPA. Generally, reasonable assurance for point sources is provided through National Pollutant Discharge Elimination System (NPDES) permits. For nonpoint sources, assurances can be regulatory, non-regulatory or incentive-based, consistent with applicable laws and programs.

Since the time of development of the Tualatin Sub-basin TMDL rule, additional authorities have been developed for implementing WLA through permits and LAs through other programs authorities. These authorities include:

NPDES Permits for Municipal and Industrial Wastewater and Storm Water: The 1972 Amendments to the Federal Water Pollution Control Act (Clean Water Act or CWA) prohibit the discharge of any pollutant to waters of the United States from a point source unless the discharge is authorized by a NPDES Permit. The NPDES permitting program is designed to track point sources, monitor the discharge of pollutants from specific sources to surface waters, and require the implementation of the controls necessary to minimize the discharge of pollutants. Initial efforts to improve water quality under the NPDES program primarily focused on reducing pollutants in industrial process wastewater and discharges from municipal sewage treatment plants.

In 1987, the CWA was again amended by Congress to require implementation of a comprehensive national program for addressing problematic non-agricultural sources of storm water discharges. As required by the amended CWA, the NPDES Storm Water Program is being implemented in two phases:

Phase I, developed by EPA in 1990, required NPDES permits for:

- storm water discharges from municipal separate storm sewer systems (MS4) generally serving or located in incorporated areas with populations of 100,000 or more people; and
- eleven categories of industrial activity, one of which is construction activity that disturbs five acres or greater of land.

Phase II, developed by EPA in 1999, requires NPDES permit coverage for storm water discharges from certain regulated small MS4s (primarily all those located in urbanized areas) and construction activity disturbing

between 1 and 5 acres of land.

Agricultural Activity: The Oregon Legislature authorized the Oregon Department of Agriculture (ODA) to be the lead state agency working with agriculture to address nonpoint source water pollution. In 1993, Senate Bill 1010 (ORS 568.900 - 568.933) or the Agricultural Water Quality Management Act was passed which authorizes ODA to develop and carry out a water quality management plan for any agricultural or rural lands area whenever a water quality management plan is required by state or federal law. One example of such a "trigger" for the planning process is a listing under section 303(d) of the federal CWA. OAR 340-41-0120(10) calls for a cooperative agreement between ODA and DEQ to implement these provisions.

Forestry Activity: Pollution control measures necessary to address forestry sources are implemented through the Forest Practices Program pursuant to ORS 527.765 as well as through voluntary landowner actions consistent with the Oregon Plan. The Forest Practices Program is implemented through best management practices adopted as administrative rules, operator/landowner education and assistance and rule enforcement through civil orders, civil penalties and, in extreme cases, criminal prosecution. The Oregon Department of Forestry is the Designated Management Agency for private and non-federal public forestlands. OAR 340-41-0026(9) and OAR 340-41-0120(11)(e) recognizes this arrangement.

Federal Lands: DEQ will work with federal agencies (e.g. USFS, BLM) to develop and modify water quality management plans to address waters listed on federal lands.

The Department has Memorandum of Understandings with these implementing agencies for undertaking the work necessary for implementing TMDLs. In addition, portions of the rules specify management planning requirements (e.g. OAR 340-41-0026(3)(a)(D) and OAR 340-41-0120(11)(e) describes surface water temperature management plans; OAR 340-41-0026(3)(a)(I) and OAR340-41-0120(12-17) describe bacteria management plans)

DEPARTMENTAL PROPOSAL: The Department is proposing to repeal OAR 340-41-0470(9) (Attachment B). The rationale for deleting the rule at this time is that the TMDLs, which have been approved by EPA, and any modifications to these TMDLs, based on recent action initiated by the Department, can be implemented through Departmental Order. Implementation planning requirements in the rule have expired and are covered through other authorities. A more detailed breakdown of this rationale follows:

OAR 340-41-0470(9)(a): Delete – these criteria (loading capacities) and their WLA/LA have been approved by EPA in order to meet the pH standard and address the chlorophyll a criteria. New ones have been proposed and are under review by the Department following the public comment period. These do not need to be incorporated by rule as they would be part of the TMDL and would become a Departmental Order. WLAs and LAs will be incorporated into permits and management plans.

OAR 340-41-0470(9)(b): Delete – these criteria (loading capacities) and their WLA/LA have been approved by EPA in order to meet the dissolved oxygen standard. New ones have been proposed and are under review by the Department following the public comment period. These do not need to be incorporated by rule as they would be part of the TMDL and would become a Departmental Order. WLAs and LAs will be incorporated into permits and management plans.

OAR 340-41-0470(9)(c): Delete, not needed as part of a rule. WLAs and LAs were submitted as part of the TMDL to EPA

OAR 340-41-0470(9)(d): Delete, not needed as part of a rule. WLAs and LAs were submitted as part of the TMDL to EPA

OAR 340-41-0470(9)(e): Delete, not needed anymore. Facilities have been constructed.

OAR 340-41-0470(9)(f): Delete, not needed anymore. Facility plans have been submitted and facilities have been developed. Facility plans would be required as part of a permit condition anyway.

OAR 340-41-0470(9)(g): Delete, not needed anymore. Plans have been submitted and are being implemented. Storm water permits are now required.

OAR 340-41-0470(9)(h): Delete - Agreements have been worked out between ODF (and mechanisms described by statute ORS 527.765) and ODA (and described by statute ORS 568.900-933 and ORS 561.191)) and plans have been submitted.

OAR 340-41-0470(9)(i): Delete – not needed. There is public comment and review of permits and the EQC has statutory ability to challenge Forest Practices and Agricultural Water Quality Management Area Plans (AWQMAP).

OAR 340-41-0470(9)(j): Delete – this work is completed.

TIMING OF THE REPEAL: The Department will ask the Environmental Quality Commission to time the effectiveness of the repeal to correspond with the promulgation and approval of the revised Tualatin TMDLs.

HOW WAS THE RULE DEVELOPED: This rule repeal was developed by the Department of Environmental Quality and draws upon the following documents:

1. Memorandum of Agreement between the United States Environmental Protection Agency and the State of Oregon Department of Environmental Quality Regarding the Implementation of Section 303(d) of the Federal Clean Water Act. February 1, 2000.
2. Consent Decree between Northwest Environmental Defense Center (NEDC) and Northwest Environmental Advocates (NWEA) vs Carol Browner, Administrator of the United States Environmental Protection Agency. May 2000.
3. EQC Agenda Item O, Status Report on the Establishment of TMDLs, December 13, 1990.

Copies of the documents relied upon in the development of this rulemaking proposal can be reviewed at the Department of Environmental Quality's office at Northwest Region 2020 SW 4th Avenue, Portland, OR 97201-4987. Please contact Andy Schaedel (503-229-6121) for copies or times when the documents are available for review.

WHOM DOES THIS RULE AFFECT INCLUDING THE PUBLIC, REGULATED COMMUNITY OR OTHER AGENCIES, AND DOES IT AFFECT THESE GROUPS?

The Tualatin Basin Phosphorus and Ammonia TMDL would affect local public and private land owners and

managers, industrial sources, public wastewater treatment facilities, cities and counties located within the Tualatin Sub-Basin, residents with the Tualatin Sub-Basin and persons interested in local water quality, and persons interested in the Department's implementatin of Section 303(d) of the federal Clean Water Act. The repeal of OAR 340-41-0470(9) should not affect these groups, however, as existing authorities will be utilized for approval and implementation of the TMDLs.

HOW WILL THE RULE BE IMPLEMENTED: TMDLs will be implemented according to methods described under "Methods for TMDL Implementation" above.

ARE THERE TIME CONSTRAINTS: The current Tualatin TMDLs for Total Phosphorus and Ammonia apply seasonally between May 1 and October 31 for Total Phosphorus and May 1 and November 15 for Ammonia. Under this rule, no activities would be allowed or wastewater discharged to the Tualatin River or its tributaries after June 30, 1993 would be allowed that would cause the monthly median concentrations to be exceeded unless authorized by the Commission. The Commission recently gave its authorization until December 31, 2000. The Phosphorus concentrations are not being achieved and the Ammonia concentrations are being achieved. The Department has proposed to revised the Total Phosphorus TMDL based on recommendations from the Tualatin Basin Policy Advisory Committee and accounting for high background (groundwater) concentrations. The Department is currently reviewing testimony on draft revisions and new TMDLs including the revision to the Total Phosphorus TMDL. Upon completion of this review, modifications to the draft revised Phosphorus TMDL may be made and finalized TMDLs would be submitted to EPA for approval. Pending action by the Commission on this rule repeal and by EPA on the proposed revised TMDLs, OAR 340-41-0470(9) could be repealed before May 1, 2001 and work to incorporate new phosphorus requirements into permits and management plans would be initiated.

INTENDED FUTURE ACTIONS: The Department is currently reviewing public comment on modifications to the existing TMDLs and proposed new TMDLs for the Tualatin. Response to comments and the modified TMDL package will be submitted to EPA. In addition, the Department will be developing some general rules regarding TMDLs that will enhance and clarify TMDL development and implementation. These rules will be based upon much that has been agreed upon in the MOA with EPA. The Department will be bringing these proposed rules to the EQC for approval, likely towards the end of 2001.

CONTACT FOR MORE INFORMATION: If you would like more information on this rulemaking proposal, wish to submit comments or would like to be added to the mailing list, please contact:

Department of Environmental Quality, Northwest Region
Attn: Andy Schaedel
2020 S.W. 4th Avenue, Suite 4
Portland, Oregon 97201-4987.
Phone: 503-229-6121
Toll Free: 1-800-452-4011
Fax: 503-229-6957
Email: schaedel.andrew.l@deq.state.or.us

ATTACHMENT A
EXISTING TUALATIN BASIN TOTAL PHOSPHORUS AND AMMONIA RULE

OAR 340-41-0470(9) 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/1 chlorophyll *a* action level stated in OAR 340-041-0150, 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 main-stream 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:

Mainstream (RM)	ug/1	Tributaries	ug/1
Cherry Grove (67.8)	20	Scoggins Creek	60
Dilley (58.8)	40	Gales Creek	45
Golf Course Road (52.8)	45	Dairy Creek	45
Rood Rd. (38.5)	50	McKay Creek	45
Farmington (33.3)	70	Rock Creek	70
Elsner (16.2)	70	Fanno Creek	70
Stafford (5.4)	70	Chicken Creek	70

(b) 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 ammonia-nitrogen at the mouths of the tributaries listed below and the specified points along the mainstream 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:

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

(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 growth 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 subsections (a) and (b) of this section;

(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 subsections (a) and (b) of this section. The program plans shall be submitted to the Department within 18 months of the adoption of this rule;

(i) Within 120 days of submittal of the program plans** and within 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 subsections (a), (b), and (e) of this section. 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 subsections (a) and (b) of this section;

(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 wastewater 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.

ATTACHMENT B

PROPOSED REPEAL OF OAR 340-41-0470(9)

~~OAR 340-41-0470(9) 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 340-041-0150, the following special rules for total maximum daily loads, waste load allocations, load allocations, and implementation plans are established:~~

~~(k) 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 main stream 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:~~

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

~~(l) 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 ammonia-nitrogen at the mouths of the tributaries listed below and the specified points along the mainstream 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:~~

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

~~(m)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 mainstream 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;~~

~~(n)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;~~

~~(o)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;~~

~~(p)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 growth in Lake Oswego;~~

~~(q)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 subsections (a) and (b) of this section;~~

~~(r)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 subsections (a) and (b) of this section. The program plans shall be submitted to the Department within 18 months of the adoption of this rule;~~

~~(s)Within 120 days of submittal of the program plans** and within 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 subsections (a), (b), and (c) of this section. Significant components of the program plans shall be inserted into permits or memorandums of agreement as appropriate;~~

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

~~(E)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;~~

~~(F)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;~~

~~(G)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:~~
~~(iv)Alternative control systems capable of complying with subsections (a) and (b) of this section;~~
~~(v)Maintenance and operation of the control systems;~~
~~(vi)Assurance of erosion control during as well as after construction.~~

~~(H)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 wastewater 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.~~

ATTACHMENT C
FISCAL AND ECONOMIC IMPACT STATEMENT
FOR REPEAL OF OAR 340-41-0470(9)

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal for
REPEAL OF OAR 340-41-0470(9)

Fiscal and Economic Impact Statement

Introduction

This proposal would repeal OAR 340-41-0470(9). OAR 340-41-0470(9) established the following by rule:

- the total phosphorus and ammonia Total Maximum Daily Loads (TMDLs), expressed in terms of monthly median concentrations at the mouths of tributaries and along the mainstem of the Tualatin River (which were submitted to the Environmental Protection Agency (EPA) and subsequently approved);
- requirements for program plans to be submitted to the Department; and
- a date for achieving the concentrations.

The Department proposes to repeal this rule as it is redundant and covered under other authorities.

As required under the Federal Clean Water Act (CWA), TMDLs are approved by EPA and Waste Load Allocations are assigned to point sources by the Department. Load Allocations for forest operations on private and state forest lands are implemented through rules adopted by the Board of Forestry under the Forest Practices Act (ORS 468B.110; 527.765; 527.770). Load allocations for agriculture are implemented through Agricultural Water Quality Management Area Plans developed by the Oregon Department of Agriculture or other statutorily available authority (ORS 561.191; 568.900 to 568.933). Other Load Allocations are implemented by the Department or by federal or local agencies.

As this rule change would repeal OAR 340-41-0470(9) but activities required under the TMDL would be carried out under other authorities currently available, the Department deems that there would be no fiscal and economic impact by the repeal of OAR 340-41-0470(9).

Impact on the General Public, Small Business, Large Business, Local Governments, State Agencies, and Assumptions: As this rule change would repeal OAR 340-41-0470(9) but activities required under the TMDL would be carried out under other authorities currently available, the Department deems that there would be no fiscal and economic impact by the repeal of OAR 340-41-0470(9).

Housing Cost Impact Statement

The Department has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

ATTACHMENT D
LAND USE EVALUATION STATEMENT

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

for
REPEAL OF OAR 340-41-0470(9)

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

This proposal would repeal OAR 340-41-0470(9). OAR 340-41-0470(9) established the following by rule:

- the total phosphorus and ammonia Total Maximum Daily Loads (TMDLs), expressed in terms of monthly median concentrations at the mouths of tributaries and along the mainstem of the Tualatin River (which were submitted to the Environmental Protection Agency (EPA) and subsequently approved);
- requirements for program plans to be submitted to the Department; and
- a date for achieving the concentrations.

The Department proposes to repeal this rule as it is redundant and covered under other authorities.

As required under the Federal Clean Water Act (CWA), TMDLs are approved by EPA and Waste Load Allocations are assigned to point sources by the Department. Load Allocations for forest operations on private and state forest lands are implemented through rules adopted by the Board of Forestry under the Forest Practices Act (ORS 468B.110; 527.765; 527.770). Load allocations for agriculture are implemented through Agricultural Water Quality Management Area Plans developed by the Oregon Department of Agriculture or other statutorily available authority (ORS 561.191; 568.900 to 568.933). Other Load Allocations are implemented by the Department or by federal or local agencies.

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

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

National Pollutant Discharge Elimination System (NPDES) Permits

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

Yes_X___ No_____ (if no, explain):

Existing DEQ procedures require city or county approval of a Land Use Compatibility Statement (LUCS) before water quality permits are issued. TMDL related permitting under Department Order and implementation requirements would continue to rely on the LUCS approval process.

c. If no, apply the following criteria to the proposed rules.

Staff should refer to Section III, subsection 2 of the SAC document in completing the evaluation form. Statewide Goal 6 - Air, Water and Land Resources is the primary goal that relates to DEQ authorities. However, other goals may apply such as Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 11 - Public Facilities and Services; Goal 16 - Estuarine Resources; and Goal 19 - Ocean Resources. DEQ programs and rules that relate to statewide land use goals are considered land use programs if they are:

1. Specifically referenced in the statewide planning goals; or

2. Reasonably expected to have significant effects on
   a. resources, objectives or areas identified in the statewide planning goals, or
   b. present or future land uses identified in acknowledged comprehensive plans.

In applying criterion 2 above, two guidelines should be applied to assess land use significance:
- The land use responsibilities of a program/rule/action that involved more than one agency, are considered the responsibilities of the agency with primary authority.
- A determination of land use significance must consider the Department's mandate to protect public health and safety and the environment.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

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

N/A

Division _____ IntergovernmentalCoord. _____ Date _____

ATTACHMENT E
QUESTIONS TO BE ANSWERED TO REVEAL POTENTIAL JUSTIFICATION FOR DIFFERING FROM FEDERAL REQUIREMENTS.

Questions to be Answered to Reveal
Potential Justification for Differing from Federal Requirements.

This proposal would repeal OAR 340-41-0470(9). OAR 340-41-0470(9) established the following by rule:

- the total phosphorus and ammonia Total Maximum Daily Loads (TMDLs), expressed in terms of monthly median concentrations at the mouths of tributaries and along the mainstem of the Tualatin River (which were submitted to the Environmental Protection Agency (EPA) and subsequently approved);
- requirements for program plans to be submitted to the Department; and
- a date for achieving the concentrations.

The Department proposes to repeal this rule as it is redundant and covered under other authorities.

As required under the Federal Clean Water Act (CWA), TMDLs are approved by EPA and Waste Load Allocations are assigned to point sources by the Department. Load Allocations for forest operations on private and state forest lands are implemented through rules adopted by the Board of Forestry under the Forest Practices Act (ORS 468B.110; 527.765; 527.770). Load allocations for agriculture are implemented through Agricultural Water Quality Management Area Plans developed by the Oregon Department of Agriculture or other statutorily available authority (ORS 561.191; 568.900 to 568.933). Other Load Allocations are implemented by the Department or by federal or local agencies.

This rule repeal does not establish any new requirements and would use existing federal and state authorities.

1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?

Under Section 303(d) (33 USC Section 1313) of the Clean Water Act (as Amended by the Water Quality Act of 1987, Public Law 10-4), States are required to develop a prioritized list of waters not meeting water quality standards (this is called the 303(d) List) and submit it to the EPA for approval. States are also required to establish Total Maximum Daily Loads (TMDLs) for pollutants for the waters identified on the 303(d) list. TMDLs are to be submitted to EPA for approval. EPA generally takes 30 days to act on these submittals. If they disapprove, either the state modifies the TMDL to satisfy the concerns or EPA establishes the TMDL.

In Oregon, the Department of Environmental Quality (DEQ) has the responsibility for the designation of Water Quality Limited Segments and the establishment of TMDLs pursuant to Section 303(d) of the Clean Water Act. The Department has committed to a schedule for developing TMDLs for pollutants for all waterbodies on the 1998 303(d) List by 2007 as part of its Oregon Plan commitments and under a 2000 Memorandum of Agreement with EPA.

2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?

Federal TMDLs requirements are performance based requirements.

3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?

Yes – TMDLs address concerns with complaince with water quality standards. The federal requirement were established with the passage of the Clean Water Act 1972. It is not know if Oregon data or information was considered in the federal process.

4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

The repeal or OAR 340-41-0470(9) is being suggested as existing requirements and processes for the regulated community are already in place so there should be less confusion or potential conflict by the rule repeal.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

Under the Oregon Plan and recent MOA with EPA, the Department has committed to completing TMDLs for pollutants for waters identified on the 1998 303(d) list by 2007. The repeal of OAR 340-41-0470(9) would help to streamline this process.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

TMDLs are to have a margin of safety and a reserve for future growth. The repeal of OAR 340-41-0470(9) would not affect the margin of safety and reserve for future growth in the TMDL.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

The TMDLs assigns waste load allocations (WLA) to point sources and load allocations (LA) to nonpoint sources. The repeal of OAR 340-41-0470(9) would not affect the equity of the WLA and LA in the TMDL.

8. Would others face increased costs if a more stringent rule is not enacted?

As this rule change would repeal OAR 340-41-0470(9) but activities required under the TMDL would be carried out under other authorities currently available, the Department deems that there would be no fiscal and economic impact by the repeal of OAR 340-41-0470(9).

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

No, reporting and monitoring requirements are to be developed as part of the Implementation Plan that is being submitted with the TMDLs. The repeal of OAR 340-41-0470(9) would not affect these requirements.

10. Is demonstrated technology available to comply with the proposed requirement?

Technology used to achieve TMDLs will be identified in management plans developed by Designated Management Agencies. The repeal of OAR 340-41-0470(9) would not affect these requirements.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

TMDLs and their implementation will address pollution prevention and address water quality problems. The repeal of OAR 340-41-0470(9) would not affect these requirements.

Attachment C
Presiding Officer Report on Public Hearing

A Public Hearing was held starting at 2 PM on Monday December 18, 2000 in Conference Room A/B at Oregon DEQ NW Regional Office, 2020 SW 4th Avenue, Portland, OR. The Hearing was to receive oral and/or written testimony on the proposal to repeal OAR 340-41-0470(9) – the Tualatin Sub-basin TMDL Rule for Total Phosphorus and Ammonia. Neil Mullane was the Hearings Officer and Andy Schaedel and Rob Burkhart were staff that were present who had worked on the proposal. A brief overview of the proposal was given by Andy Schaedel prior to the hearing.

One person, Sue Marshall, who represented the Tualatin Riverkeepers gave oral testimony, which was the same as the written testimony that was provided. In addition, the Department received written testimony from the following:

Name	Organization	Testimony
1. William Gilham		Written
2. Ela Whelan	Water Environment Services, Clackamas County	Written
3. Sue Marshall	Tualatin Riverkeepers	Oral/Written
4. Mark Riskedahl	Northwest Environmental Defense Center	Written
5. Charles Logue	Unified Sewerage Agency of Washington County	Written
6. John Rosenberger	Washington County	Written

Written testimony is attached.

Issues raised in the testimony were as follows:

- Several Designated Management Agencies requested that the *Tualatin Sub-basin Nonpoint Source Management Implementation/Compliance Schedule and Order for Designated Management Agencies (DMAs)* be extended effective December 31, 2000 with its expiration conconcurrent with the approval by EPA of the new TMDLs (Attachment F). This would be to address any potential liability arising from time gaps where the compliance order is not in effect and a new TMDL has not been approved.
- Several Designated Management Agencies requested to know the anticipated role of the EQC in the TMDL process particularly, as the TMDL would be required under Department Order rather than rule, would there be a procedure by which the order could be appealed to the EQC.
- Several environmental groups felt that it is premature to repeal the rule as the revised TMDLs have not yet been approved. They expressed concern that the revised TMDLs would not be quantifiable, enforceable and subject to a compliance schedule and felt the rule provided this

assurance. They requested that the public comment period remain open until 30 days after EPA approval of the revised Tualatin TMDL.

- Several environmental groups felt that the repeal of the Tualatin Rule would weaken TMDL enforcement and that enforcement of the TMDL has been avoided through a series of extensions to the compliance schedule. Although DEQ may have the authority to enforce the TMDL through existing mechanisms, it has opted not to do so.

Re: ~~Repeal~~ of OAR 340-41-0470(9)

Mr. William F. Gilham
8320 SW Ellman Ln.
Portland, OR 97224

Dec. 14, 2000

Dear Mr. Schaedel;

Thank you for this opportunity to comment. After living, loving and working on the Tualatin River for sixty years, I remain more interested than ever in water quality. I definitely would appreciate being included on your mailing list.

It seems to me that there is an overlapping of TMDL agencies and regulations.

In short; in the outcome, whoever will be responsible for water quality in the Tualatin should never set any acceptable TMDL's, because there is none. The only justification for the existence of any agency is to uphold the standards and set no limits on quality. The public

does not budget money for talented chemists and engineers to sit back and be satisfied with any standard. They should operate like a private company which is never satisfied with their efficiency and progress.

I am glad to congratulate the DEQ and the U.S.A. for the excellent results in restoring the water quality, especially in the last ten years.

I love this river, she is long and curvy and beautiful. I will soon leave her in your care, so continue your good efforts, and don't stop at any point.

With Heartfelt
Thanks, Bill Gilham

WATER ENVIRONMENT SERVICES
Water Quality Protection • Surface Water Management
Wastewater Collection and Treatment

December 18, 2000

J. Michael Read
Director

Andy Schaedel,
DEQ, NW Region
2020 SW 4th Ave., Suite 400,
Portland, Oregon 97201.

Dear Andy,

Thank you for the opportunity to comment on the proposed repeal of the Tualatin sub-basin TMDL rule for total phosphorus and ammonia. The Department of Environmental Quality ("DEQ") deserves praise for its efforts on behalf of the health of the Tualatin River. We hope these efforts continue to be cooperative and focused on effective measures for improvements in water quality.

The issues involved in the Tualatin TMDL process are scientifically complex and the validity of that process is of vital importance. While we understand DEQ's desire to implement a more streamlined process for promulgating TMDLs, we believe that the Environmental Quality Commission ("EQC") must remain significantly involved in establishing the Tualatin TMDLs. In addition, there are several procedural issues that the EQC and the Department must address in considering the Tualatin TMDL rule.

Surface Water Management Agency of Clackamas County has the following comments:

The Designated Management Agency Implementation and Compliance Order is currently set to expire on December 31, 2000. There is a possibility that the designated management agencies would be out of compliance with OAR 340-41-470 (9)(a) if that compliance order is not in effect. However, once the new TMDL is approved by EPA, the existing compliance order will no longer be necessary. We are acutely aware of the potential liability arising from any time gaps where the compliance order is not in effect and a new TMDL has not been approved. There is currently one lawsuit focused on the Tualatin River being litigated and there are several outstanding 60-day notices that have been submitted to various agencies that could result in further litigation.

Therefore, we request that the EQC extend the compliance order, making its expiration concurrent with the approval by EPA of the new TMDLs. In addition, the

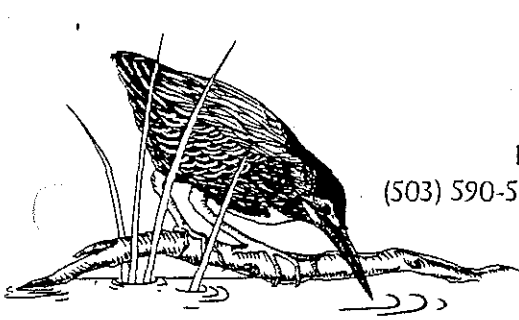
extension should be made effective December 31, 2000, ensuring that there are no gaps in coverage. This extension would only be for a very limited time. Comments on the draft version of the new TMDLs are currently being considered by DEQ and a final version of the TMDLs should be sent to EPA for approval early in 2001.

If the Tualatin River TMDL Rule is repealed, we would like to know about the EQC's involvement with the TMDL going forward. The issues involved in the promulgation of the Tualatin River TMDLs, and TMDLs generally, are of great importance to the citizens of this state. They are also issues that should be followed closely by the EQC. The EQC, as the policy making body for DEQ, should continue to play a significant role in guiding the development of TMDLs. If the Tualatin River TMDLs are to be promulgated by Departmental Order rather than by Rule, we request that the Department describe the procedures by which that order could be appealed to the EQC.

Thank you for considering our comments.

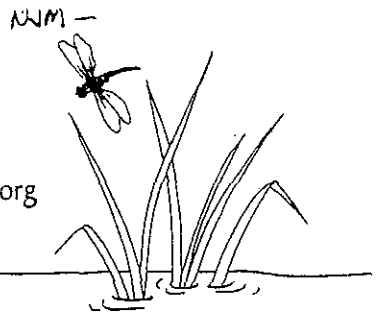
Ela Whelan

Ela Whelan, PE
Surface Water Manager



TUALATIN Riverkeepers

16340 SW Beef Bend Rd. Sherwood, OR 97140
(503) 590-5813 • fax: (503) 590-6702 • www.tualatinriverkeepers.org
email: info@tualatinriverkeepers.org



December 18, 2000

Andy Schaedel
Oregon Department of Environmental Quality
2020 SW 4th Ave.
Portland, OR 97201

RE: Comments on Repeal of Tualatin Sub-Basin Rule for Total Phosphorus and Ammonia (OAR) 340-41-0470(9)

Dear Mr. Schaedel,

My name is Sue Marshall, Executive Director of the Tualatin Riverkeepers. Please accept the following comments on behalf of our organization and its 700 members.

The Tualatin Riverkeepers believes it is premature to consider a repeal of the Tualatin Rule for Total Phosphorus and Ammonia (OAR) 340-41-0470(9). The revised Tualatin TMDL, which replaces this existing TMDL set out in the Tualatin Rule (OAR) 340-41-0470(9), has not yet been approved by the Environmental Protection Agency. Assessing the adequacy of the new Tualatin TMDL is essential in determining whether or not a Tualatin TMDL should be enforced by an Oregon Administrative Rule.

At this time, the Tualatin Riverkeepers opposes the repeal of the Tualatin Rule, (OAR) 340-41-0470(9), and we request the public comment period remain open until 30 days after EPA approval of the revised Tualatin TMDL.

The existing Tualatin Rule clearly sets monthly median concentrations for total phosphorus and ammonia-nitrogen for 14 specified sites in the basin, it allocates identifiable waste load allocations (WLA) and load allocations (LA), and sets a schedule (specific dates) when actions and standards are expected to be achieved. Fundamentally, for TMDLs to be successful there is a need for them to be quantifiable, enforceable, and subject to a compliance schedule. The Tualatin Rule, OAR 340-41-0470(9), provides this assurance.

It is unclear whether or not the new Tualatin TMDL will include identifiable and enforceable WLA and LA, or be subject to a compliance schedule. The proposed Tualatin TMDL is lacking identifiable pollutant WLA and LA, does not include a schedule for compliance, and includes only a vague Water Quality Management Plan. To judge the need for a Tualatin TMDL rule based on the proposed new TMDL, we conclude that the rule is the only enforceable mechanism and it should be retained.

If the final EPA approved Tualatin TMDL includes identifiable, enforceable, WLA and LA, and a WQMP that describes specific actions to be taken by specific dates designed to meet the pollutant loadings... we may agree that a Tualatin Rule is not needed. Again, until we have an

opportunity to evaluate the final TMDL we cannot agree to the elimination of the only enforceable mechanism.

We believe the repeal of the Tualatin Rule would weaken TMDL enforcement. DEQ has, it appears to us, successfully avoided enforcement of the existing TMDL through a series of extensions to a compliance order that was set in 1990, the basis of this rule. This coupled with the inadequacy of the proposed Tualatin TMDL implementation plan now being developed by DEQ with the designated management agencies leaves us worried. DEQ may have the authority to enforce the TMDL through existing mechanisms, but they opt not to do so.

We believe there is a serious issue of public trust with the implementation of the Tualatin TMDL. While the Tualatin Rule does provide an enforceable mechanism, enforcement of the existing TMDL has been avoided by a series of extensions to a "compliance order". This "compliance order" was negotiated in 1993 when it was apparent that the Designated Management Agencies would not meet the compliance order set out in the TMDL Rule. I have attached a summary of Tualatin TMDL Milestones and the following summary of the "compliance order" extensions.

Summary of TMDL "Enforcement" since 1993

- **Oregon Administrative Rules require that the TMDL criteria for phosphorus and ammonia be met by June 30, 1993.**
- **In 1993 USA and DEQ prepare a "non-point source compliance order" which does not include a requirement for compliance with storm water Waste Load Allocations and non-point Load Allocations.**
- **The "compliance order" was extended five times over the next five years. Each new "compliance order" fails to include storm water and non-point source Waste Load and Load Allocations or a schedule to achieve the allocations.**
- **Nov. 2000 - DEQ proposes a repeal of the Tualatin TMDL rule, OAR 340-41-0470.**

Extending the public the comment period until 30 days after EPA approval of the revised Tualatin TMDL will reassure the public that the proposed repeal of the Tualatin Rule is not another avenue to avoid TMDL enforcement.

Again, at this time, the Tualatin Riverkeepers opposes the repeal of the Tualatin Rule, (OAR) 340-41-1470(9), and we request that the public comment period remain open until 30 days after EPA approval of the revised Tualatin TMDL.

Thank you for your consideration and for the opportunity to comment on this proposed rule change.

Sincerely,

Sue Marshall

Sue Marshall, Executive Director
Tualatin Riverkeepers

Tualatin River TMDL Milestones

August 16, 1986	Northwest Environmental Defense Center [NEDC] sends a Clean Water Act 60-day notice to the Environmental Protection Agency [EPA], based on failure of the Department of Environmental Quality [DEQ] to complete TMDL's [Total Maximum Daily Load] in Oregon.
December 12, 1986	NEDC and Jack Churchill file suit in Federal District Court in Oregon, under the Clean Water Act, against EPA and its administrator Lee Thomas, based on DEQ failure to set TMDL's. Case name is NEDC v. Thomas. Complaint identifies Tualatin River as one of the many waters needing TMDL's.
January 6, 1987	NEDC sends a second Clean Water Act 60-day notice to EPA for DEQ failure to set TMDL's in Oregon. Notice specifically identifies the Tualatin River.
June 3, 1987	Consent Decree in NEDC v. Thomas entered by court. Decree requires DEQ/EPA to complete a Loading Capacity analysis for the Tualatin River and submit it to EPA by May 1987. Tualatin is first water on list of required TMDL work. The Decree also requires DEQ/EPA to complete adoption of TMDL's for all waters listed then and in the future by DEQ as Water Quality Limited, at the rate of 20% of all Water Quality Limited Streams annually.
1988	**Oregon Administrative Rule, 340-41-0470, sets criteria for ammonia and phosphorus TMDL's for the main stem and 5 tributaries. The criteria must be achieved by June 30, 1993.**
1988	NEDC gives a Clean Water Act 60-day notice to USA for failure to comply with NPDES permits and unauthorized discharges. Over 13,800 treatment plant violations are sited.
December 1988	NEDC, Tualatin Riverkeepers, Lower Tualatin Valley Home Owners Association, Tualatin Dam Park Home Owners League, and others file suit in federal court against USA. Case name is NEDC v. USA.
1989	TMDL's, Waste Load Allocations [WLA's], Load Allocations [LA's] for the Tualatin River established by DEQ and approved by EPA, for ammonia and phosphorus.
August 2, 1990	A Consent Decree in NEDC v. USA is entered. Requires submission by USA of a draft compliance schedule for compliance with NPDES permit by 12/1/90 and creation by DEQ of a final compliance schedule due by 12/29/90.
1992	USA achieves WLA's for treatment plant discharges.
1993	As the June 30th deadline approaches, **USA and DEQ prepare a "nonpoint source compliance order" which does not include a requirement for compliance of the Load Allocations for nonpoint.** The Environmental Quality Commission [EQC] approves this "compliance order/schedule" for 18-months.

Nov. 16-17, 1995	**EQC extends the "Non-Point Source Compliance Order"** for an additional 18 months. DEQ appoints a Technical Advisory Committee.
1997	**EQC again extends the "Non-point Source Compliance Order",** this time for 6 months. DEQ appoints a Policy Advisory Committee. The Designated Management Agencies through USA hire staff to facilitate and set the agenda for those meetings.
February 27, 1998	A Subcommittee on TMDL Implementation issues a report to DEQ clarifying persistent confusion regarding natural vs. human caused sources of phosphorus and the relationship of TMDL's to water quality programs of the DMA's.
April 4, 1998	**EQC extends the "Non-point Source Compliance Order" for one month** and directs DEQ to provide a plan and schedule for implementing TMDL's for the Tualatin. The EQC further directed DEQ to incorporate the recommendations developed by the TMDL Subcommittee of the Tualatin Basin Policy Advisory Committee.
June 11, 1998	**EQC adopts a new "Compliance Order" that must be implemented by July 1999.** Rather than laying out an actual schedule by which the non-point source Load Allocations will be met, the "Compliance Order" describes **a process for developing a new implementation program for non-point source**, updating existing WLA's for phosphorus and ammonia and developing additional TMDL's for temperature, pH, bacteria.
June 1998	DEQ, with USA funding and assistance, hires a Tualatin basin Coordinator to accomplish the new "Compliance Order".
June 2000	**DEQ again requests and EQC grants an extension to the "compliance order" until December 2000.**
December 2000	**DEQ proposes a repeal of the Tualatin TMDL Rule, OAR 340-41-0470, they reason that there is no need for the rule and that the TMDL rules place an administrative burden on DEQ staff.**

Summary of TMDL "Enforcement" since 1993

- **Oregon Administrative Rules require that the TMDL criteria for phosphorus and ammonia be met by June 30, 1993.**
- **In 1993 USA and DEQ prepare a "non-point source compliance order" which does not include a requirement for compliance with storm water Waste Load Allocations and non-point Load Allocations.**
- **The "compliance order" was extended five times over the next five years. Each new "compliance order" fails to include storm water and non-point source Waste Load and Load Allocations or a schedule to achieve the allocations.**
- **Nov. 2000 - DEQ proposes a repeal of the Tualatin TMDL rule, OAR 340-41-0470.**

Compiled by the Tualatin Riverkeepers, revised December 2000.

December 19, 2000

Andy Schaedel
Oregon Department of Environmental Quality
2020 SW 4th Ave.
Portland, OR 97201

RE: Comments on Repeal of Tualatin Sub-Basin TMDL Rule for Total Phosphorus and Ammonia (OAR) 340-41-0470(9)

Andy:

I wanted to pass on a few concerns the Northwest Environmental Defense Center (NEDC) has with the Department's proposed repeal of the Tualatin TMDL Rule. Although the Department has determined that the workability of future TMDLs may be hampered by the rule-making process, the expenditure of the Department's limited public resources for the purpose of repealing an already existing rule is highly questionable. This attempt seems premature as it is not yet clear what WLAs and LAs will take the place of those set forth in the rule. Further, the Department's numerous extensions of the nonpoint-source compliance schedule deriving from the original rule would appear to implicate the Department's unwillingness to effectively enforce the provisions of the rule, rather than to serve as providing a rationale for repealing the rule.

It is unfortunate that the Department is once again engaged in backsliding that is expressly contrary to the goals and objectives of the Clean Water Act. There is no evidence in the memo accompanying the proposed rule repeal that the repeal would actually serve to protect, restore or even maintain the chemical, physical and biological integrity of the Tualatin River. In fact, the Department's enforcement authority concerning nonpoint source pollution in the Tualatin basin provided through the "reasonable assurances" outlined in the memo appears to be less stringent than its existing enforcement authority under the Tualatin Rule. In addition to the above-mentioned concerns, NEDC would also like to incorporate by reference the issues raised in the comments submitted on December 18, 2000 by Sue Marshall on behalf Tualatin Riverkeepers.

Sincerely,

Mark Riskedahl
President, NEDC
10015 SW Terwilliger Blvd.
Portland, OR 97219

UNIFIED SEWERAGE AGENCY OF
WASHINGTON COUNTY

December 19, 2000

Mr. Andy Schaedel
Oregon Department of Environmental Quality
2020 SW 4th Ave., Suite 400
Portland, OR 97201

Re: Repeal of Oregon Administrative Rule (OAR) 340-41-0470(9)
The Tualatin Sub-basin TMDL Rule for Total Phosphorus and Ammonia

Dear Mr. Schaedel:

Thank you for the opportunity to comment on the proposed repeal of the Tualatin sub-basin TMDL rule for total phosphorus and ammonia. The Department of Environmental Quality ("DEQ") deserves praise for its efforts on behalf of the health of the Tualatin River. We hope these efforts continue to be cooperative and focused on effective measures for improvements in water quality.

The issues involved in the Tualatin TMDL process are scientifically complex and the validity of that process is of vital importance. While we understand DEQ's desire to implement a more streamlined process for promulgating TMDLs, there are several procedural issues that should be addressed before the proposed repeal of the Tualatin TMDL is finalized.

The Unified Sewerage Agency's comments are as follow:

The Designated Management Agency Implementation and Compliance Order is currently set to expire on December 31, 2000. There is a possibility that the designated management agencies would arguably be out of compliance with OAR 340-41-470 (9)(a) if that compliance order is not in effect. However, once the new TMDL is approved by EPA, the existing compliance order will no longer be necessary. We are acutely aware of the potential liability arising from any time gaps where the compliance order is not in effect and a new TMDL has not been approved. There is currently one lawsuit focused on the Tualatin River being litigated and there are several outstanding 60 day notices that have been submitted to various agencies that could result in further litigation.

Therefore, we request that the Environmental Quality Commission ("EQC") extend the compliance order, making its expiration concurrent with the approval by EPA of the new TMDL. In addition, the extension should be made effective December 31, 2000,

ensuring that there are no gaps in coverage. This extension would only be for a very limited time. Comments on the draft version of the new TMDL are currently being considered by DEQ and a final version of the TMDL should be sent to EPA for approval early in 2001.

If the Tualatin River TMDL Rule is repealed, we would like to know the anticipated role of EQC in the TMDL process. The issues involved in the promulgation of the Tualatin River TMDL, and TMDLs generally, are of great importance to the citizens of this state. They are also issues that should be followed closely by the EQC. The EQC, as the policy making body for DEQ, should continue to play a significant role in guiding the development of TMDLs. If the Tualatin River TMDL is to be promulgated by Departmental Order rather than by Rule, we would like to know the procedure by which that order could be appealed to the EQC.

Again, the Agency appreciates the opportunity to provide comments on this proposed Agency action.

Sincerely,

Charles Logue
Technical Services Department Director

Cc: Bill Gaffi
Jerry Linder
Craig Dye

WASHINGTON COUNTY
OREGON

December 19, 2000

Mr. Andy Schaedel
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
2020 SW 4th Avenue Suite 400
Portland, OR 97201

Proposed Repeal of OAR 340-41-0470(9);
Tualatin Sub-basin TMDL Rule for Total Phosphorus and Ammonia

Dear Mr. Schaedel:

Thank you for the opportunity to comment on the proposed repeal of the Tualatin sub-basin TMDL rule for total phosphorus and ammonia. The Department of Environmental Quality ("DEQ") deserves praise for its efforts on behalf of the health of the Tualatin River. We hope these efforts continue to be cooperative and focused on effective measures for improvements in water quality.

The issues involved in the Tualatin TMDL process are scientifically complex and the validity of that process is of vital importance. While we understand DEQ's desire to implement a more streamlined process for promulgating TMDLs, we believe that the Environmental Quality Commission ("EQC") must remain significantly involved in establishing the Tualatin TMDLs. In addition, there are several procedural issues that the EQC and the Department must address in considering the Tualatin TMDL rule.

Washington County's comments are as follows:

The Designated Management Agency Implementation and Compliance Order is currently set to expire on December 31, 2000. There is a possibility that the designated management agencies would be out of compliance with OAR 340-41-470 (9)(a) if that compliance order is not in effect. However, once the new TMDL is approved by EPA, the existing compliance order will no longer be necessary. We are acutely aware of the potential liability arising from any time gaps where the compliance order is not in effect and a new TMDL has not been approved. There is currently one lawsuit focused on the Tualatin River being litigated and there are several outstanding 60-day notices that have been submitted to various agencies that could result in further litigation.

Department of Land Use & Transportation • Administration
155 N First Avenue, Suite 350-16, Hillsboro, OR 97124-3072
phone: (503) 846-4530 • fax: (503) 846-4412

Therefore, we request that the EQC extend the compliance order, making its expiration concurrent with the approval by EPA of the new TMDL. In addition, the extension should be made effective December 31, 2000, ensuring that there are no gaps in coverage. This extension would only be for a very limited time. Comments on the draft version of the new TMDL are currently being considered by DEQ and a final version of the TMDL should be sent to EPA for approval early in 2001.

If the Tualatin River TMDL Rule is repealed, we would like to know about the EQC's involvement with the TMDLs going forward. The issues involved in the promulgation of the Tualatin River TMDLs, and TMDLs generally, are of great importance to the citizens of this state. They are also issues that should be followed closely by the EQC. The EQC, as the policy making body for DEQ, should continue to play a significant role in guiding the development of TMDLs. If the Tualatin River TMDL is to be promulgated by Departmental Order rather than by Rule, we request that the Department describe the procedures by which that order could be appealed to the EQC.

Thank you for the opportunity to comment on this proposed rule.

Sincerely yours,

John Rosenberger
Director

LS\LTR\DEQ-Rule Repeal_1.DOCsb

Attachment D – Department's Evaluation of Public Comment

Background: The Department developed the request to repeal the OAR 340-41-0470(9) as it is able to implement TMDLs under a Department Order using existing authorities. When the phosphorus and ammonia TMDLs in the Tualatin were developed in 1988, the TMDL process was new and some authorities (SB1010 and Storm Water Permits) were not available. In 1990, the Department discussed a process with the EQC, which was agreed to, whereby TMDLs would not be implemented by rule. Currently, TMDLs for phosphorus and ammonia in the Tualatin can be implemented under NPDES permits, Agricultural Water Quality Management Area Plans (ORS 561.191; 568.900 to 568.933) and under the Forest Practices Act (ORS 468.110; 527.765; 527.770).

Several Designated Management Agencies requested that the *Tualatin Sub-basin Nonpoint Source Management Implementation/Compliance Schedule and Order for Designated Management Agencies (DMAs)* be extended effective December 31, 2000 with its expiration conconcurrent with the approval by EPA of the new TMDLs (Attachment F). This would be to address any potential liability arising from time gaps where the compliance order is not in effect and a new TMDL has not been approved:

> The Department feels that potential liability is low if the Compliance Order is not extended, as the rule is a seasonal rule which applies from May 1 to November 15 of each year. The Commission should take action on the rule at the March meeting, prior May 1 when the rule would again be in affect.
>
> The Compliance Schedule and Order that was developed in 1993 is referenced in the current Municipal Separate Storm Sewer System (MS4) Dicharge Permits. Pending EPA approval of the recently submitted TMDLs, the Department will begin to work with DMAs to revise the MS4 permits. The current permit conditions will still apply until new MS4 permits can be developed.

Several Designated Management Agencies requested to know the anticipated role of the EQC in the TMDL process particularly, as the TMDL would be required under Department Order rather than rule, would there be a procedure by which the order could be appealed to the EQC:

> The Department indicated to the EQC at its December 1, 2000 meeting (Agenda Item F, Total Maximum Daily Load (TMDL) Process and Update on the Tualatin TMDL) that it will be developing general rules regarding TMDLs that will clarify TMDL development and implementation. These rules will be based upon much that has been agreed upon in February

2000 MOA with EPA. The Department will be bringing these proposed rules to the EQC for approval, likely towards the end of 2001. The Department will consider the EQC role in the development of these rules.

Implementation of TMDLs will occur through various management programs that are currently available – each with their own review process described by rule or statute. For example, in the case of waste load allocations being incorporated into permits, procedures for issuance, denial and modifications of permits are decribed in Divisions 14 and 45. An applicant can request a hearing before the EQC or its authorized representative if dissatisfied with the conditions or limitations.

Several environmental groups felt that it is premature to repeal the rule as the revised TMDLs have not yet been approved. They expressed concern that the revised TMDLs would not be quantifiable, enforceable and subject to a compliance schedule and felt the rule provided this assurance. They requested that the public comment period remain open until 30 days after EPA approval of the revised Tualatin TMDL:

The Department has proposed that the rule repeal be effective upon EPA approval of the revised TMDLs. TMDLs are required under the Clean Water Act and must meet federal regulations in order to be approved by EPA. Regulations require a description of the applicable standard, identification of the waterbody's loading capacity for the applicable pollutant and identification of WLAs for point sources and LAs for nonpoint sources. Reasonable Assurance that nonpoint source reductions must be explained and the Department has agreed to submit implementation plans with the TMDLs. The Department believes that EPA is in position and is required to make the judgment that the TMDLs, WLAs and LAs are properly quantified, enforceable and subject to a compliance schedule. Furthermore, judicial review of TMDLs is based on EPA's written decision and the administrative record supporting that decision.

Compliance schedules in permits would need to be within 5 years unless otherwise specified. In EPA's recent TMDL guidance (Federal Register Volume 65, Number 135, page 43668), the following timeframes are recommended:

- A schedule, which is as expeditious as practicable, for implementing the management meaures or other control actions to achieve load allocations in the TMDL within 5 years, when implementation within this period is practicable;
- For all impaired waterbodies, the implementation plan must be based on a goal of attaining and maintaining the applicable water quality standards within ten years whenever attainment and maintenance within this period is practicable.

The Department has not extended the comment period. The EQC may choose not to take action on the rule repeal at this time.

Several environmental groups felt that the repeal of the Tualatin Rule would weaken TMDL enforcement and that enforcement of the TMDL has been avoided through a series of extensions to the compliance schedule. Although DEQ may have the authority to enforce the TMDL through existing mechanisms, it has opted not to do so:

The Department does not believe that repeal of the rule would weaken TMDL enforcement. The enforcement mechanism for TMDLs is generally through the permit requirements or specified in statute and rule for Agricultural Water Quality Management Area Plans (ORS 561.191; 568.900 to 568.933) and under the Forest Practices Act (ORS 468.110; 527.765; 527.770).

Attachment E
Changes to Original Proposal in Response to Public Comment

No changes were made based on Public Comment but made some clarifications regarding its intent. The Department is recommending the following changes to the original proposal to repeal OAR 340-41-0479(9) upon EPA approval of the revised TMDLs.

State of Oregon
Department of Environmental Quality Memorandum

Date: February 16, 2001

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item H, Medford Carbon Monoxide Maintenance Plan Revisions, EQC Meeting of March 9, 2001

Background

On December 6, 2000, the Director authorized the Air Quality Division to conduct a rulemaking hearing on proposed rule amendments that would modify the Medford Carbon Monoxide Maintenance Plan. The primary effect of this action is to remove the requirement for wintertime use of oxygenated fuel in Jackson County, but it also updates estimates of existing and future carbon monoxide emissions (on which the plan is based) and modifies other plan requirements.

Pursuant to the authorization, on December 13, 2000 the Department mailed hearing notices and informational materials to those persons who asked to be notified of rulemaking actions and also to those who would be affected by or interested in the proposed rulemaking action. Additionally, notice of the hearing was published in the Secretary of State's Bulletin on January 1, 2001.

The Department held a public hearing on the proposed action January 16, 2001 at Medford's Smullin Health Center. Keith Tong of DEQ's Medford office presided at the hearing and summarized oral testimony presented in the Presiding Officer's Report (shown as Attachment C). Written comments received by 5:00 p.m. January 18, 2001 were also accepted. An index of written comments is provided in Attachment D. (Copies of comments submitted are available upon request.) Attachment D also includes the Department's evaluation of both oral and written comments received, and based on that evaluation recommends that no modifications be made to the initial rulemaking proposal.

The following sections explain the intent of this proposed rulemaking action, the authority to address the issue and the process used to develop the proposal. The memo also summarizes the proposal as presented for public comment, and cites significant comments submitted together with changes proposed in response to those comments. The memo also indicates how the proposed rule amendments will be implemented, and concludes with the Department's recommendation for commission action.

Key Words and Acronyms

Attainment	The official classification under the Clean Air Act that indicates a geographic area meets the air quality standard set for a given pollutant.
Conformity	A regulatory process that requires consistency between future emissions from the transportation system and the amount of pollution accounted for on-road motor vehicles in an air quality plan.
Emissions Budget	The amount of pollution specified in an air quality plan that is allowed to be produced by motor vehicles under the conformity rules.
Oxygenated Fuel or Oxy-fuel	Gasoline with a minimum oxygen content of 2.7% used to reduce wintertime carbon monoxide emissions.
SIP	State Implementation Plan—air quality regulations and air quality plans that are approved by EPA and that specify how a state will attain and maintain the National Ambient Air Quality Standards. Required by the Clean Air Act.

Issue this Proposed Rulemaking Action is Intended to Address

The purpose of this rulemaking is to quickly consider repeal of oxygenated fuel in Jackson County after new analyses show it is no longer needed to maintain the carbon monoxide (CO) air quality standard.

When the Medford Carbon Monoxide Maintenance Plan was developed in 1998, projections indicated oxygenated fuel was needed to ensure healthy air quality would be maintained into the future. At that time it was known that new computer models of vehicle emissions (then being developed) were likely to show future CO emissions would be much lower than were then projected. Those models were also expected to show that 1996 and newer vehicles would experience very little added benefit from oxygenated fuel. As a result, the 1998 Medford-Ashland Air Quality Advisory Committee asked the Department to reevaluate the continued need for oxygenated fuel once the new computer analysis could be accomplished. This revision of the original Medford CO Maintenance Plan responds to the advisory committee's request.

Relationship to Federal and Adjacent State Rules

Oxygenated fuel was originally adopted for Jackson County to meet requirements of the 1990 Clean Air Act Amendments. More specifically, section 211 (m) of the Act mandates that wintertime oxygenated fuel programs must be implemented in areas that did not attain the carbon monoxide standard. However, 211 (m)(6) also notes that oxygenated fuel must be retained only as long as it is needed to continue meeting the carbon monoxide standard.

By removing the oxy-fuel requirement, this proposal aligns the Medford Maintenance Plan with the minimum federal requirements. Additional discussion of the relationship between this proposal and federal requirements is included in Attachment B.4.

Authority to Address the Issue

The Department has the statutory authority to address this issue under ORS 468A.025 and 468.020. These rules implement ORS 468A.035 and 468A.420.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

In 1998, DEQ worked closely with the Medford-Ashland Air Quality Advisory Committee to develop carbon monoxide (CO) emission reduction strategies for the Medford CO Maintenance Plan. At that time, computer models indicated that oxygenated fuel was needed to meet the carbon monoxide standard. At the same time, it was anticipated that a new computer model being developed (Mobile 6) was likely to predict less emissions from motor vehicles the future. In light of some persistent, unfavorable opinions about oxygenated fuel in Jackson County, DEQ made a commitment to promptly reevaluate the continued need for oxy-fuel once Mobile 6 became available.

Release of the Mobile 6 model was delayed repeatedly. In early 2000, EPA Region 10 indicated that an interim emission factor model (Mobile 5B Cold CO) could be used for the oxygenated fuel reevaluation.

Analysis using the Mobile 5B Cold CO model indicated that oxygenated fuel in Medford was no longer needed to meet the CO standard. At the October 2000 meeting the advisory committee unanimously recommended that the Department discontinue wintertime oxygenated fuel in Jackson County. This proposed rulemaking responds to that recommendation.

The additional maintenance plan revisions were also approved by the Medford-Ashland Air Quality Advisory Committee with one exception. That exception is the proposed discontinuation of the Plant Site Emission Limit Management Program for major industrial sources that was suggested by Department staff only after scheduled advisory committee meetings were completed. Under the present circumstances in which projected carbon monoxide emissions remain below acceptable levels by a wide margin, the Department considers this change to be not controversial. The modification was specified in the notice for public hearing, received no adverse comment, and so is included with these proposed revisions.

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

The most significant revision to the Medford CO Maintenance Plan is elimination of the oxygenated fuel requirement with a provision to reinstate oxy-fuel should the CO standard be violated in the future. Other modifications to the plan are discussed below.

Two basic components of an air quality maintenance plan are the inventory of emissions during a baseline "attainment year" and the prediction of likely emissions during a future projection year. The total amount of carbon monoxide emitted during a year of good air quality and normal weather conditions is used to establish a baseline Emissions Inventory. That amount defines the airshed capacity and becomes the limit for projected future emissions. Because the computer model of on-road motor vehicle emissions determines a large percentage of total CO emissions in both the baseline and future projection years, introduction of a different mobile model requires the inventories to be recalculated. Such recalculated inventories modify Appendix D-3 (of SIP Volume 3) and are included as part of the proposed maintenance plan revisions.

In the process of recompiling Medford's CO emissions, the Department also made use of results from a new regional transportation model for Rogue Valley that was updated and improved since the 1998 edition. The regional transportation model is used to estimate current and future vehicle miles traveled. The proposed revisions to the maintenance plan include the results of this new transportation model in conjunction with the new Mobile 5B Cold CO emissions model to produce more sophisticated estimates of past and future emissions.

Because the new projection of future emissions indicates carbon monoxide emissions from on-road motor vehicles will be much lower than previously anticipated, the proposed maintenance plan revision also modifies the existing motor vehicle "emissions budget". That emissions budget establishes the amount of carbon monoxide that can be allowed from on-road vehicles when future transportation systems are evaluated. The newly proposed emissions budget is set at 120% of the amount of CO projected to be emitted by motor vehicles in 2015. The intent of setting the limit 20% above projected amounts is to provide an allowance well above predicted emissions to accommodate unanticipated variations between emissions predicted by the current Mobile 5B Cold CO emissions model and the future Mobile 6 emissions model.

In addition, the proposed revisions provide an emissions budget for years beyond the maintenance plan to increase the certainty that air quality conformity problems will not be artificially created during the post plan period. The emissions budget for that period was determined by allowing an increased level of motor vehicle emissions in the year 2020—an amount that should actually accommodate population growth through 2030. (Accommodating growth through 2030 is important because that is the most distant future year in a regional transportation plan that could be subject to these emissions budgets before those budgets must be updated.)

These emission allowances above actual projected emissions reflect the greater flexibility that can be allowed when the projections show future CO emissions to be well below the airshed's capacity.

The proposed changes to the maintenance plan also include elimination of the industrial emissions tracking program that was part of the plan in 1998. At that time, total future emissions were estimated to barely remain within the airshed's capacity when actual industrial emissions were projected to grow at the same rate as industrial employment. Because motor vehicles are the largest source of CO emissions and because CO is a localized pollutant that does not transport throughout an area, EPA guidance allows the use of projected actual emissions (rather than the total emissions allowed under all issued permits) for CO in making a maintenance demonstration. Therefore, most locations with elevated CO levels are usually at busy intersections where industrial (point) sources are generally not significant contributors. Due to the lower levels of CO emissions predicted by EPA's new mobile emissions models, total future CO emissions are expected to remain well within the airshed's capacity. Therefore, the Department believes that the industrial emissions tracking program is no longer necessary and proposes to remove it from the plan.

Finally, proposed revisions to the Medford CO Maintenance Plan adjust the amount of CO emissions reduction that is attributed to the DEQ Inspection & Maintenance (vehicle testing) program. Recently introduced legislation (HB 2132) would amend the vehicle registration statute to allow most new vehicles to be registered for an initial four year period rather than an initial two year period as is now the case. The bill is supported by the Department of Transportation's Driver and Motor Vehicles Services. Because most new vehicles are not subject to vehicle testing until they are *reregistered*, this change would relieve new vehicles from the emissions testing program for an additional two years. The Department analyzed the effect of that change and found that in 2015 it would increase CO emissions on a typical winter day by 74 pounds. That amount is negligible compared to the projected total emissions in 2015 of 67,872 pounds CO per day and the Medford airshed capacity of 112,143 pounds per day established by the 1993 Emission Inventory. Therefore, the emissions projections in the proposed maintenance plan assume that the first four vehicle years will be exempt from the vehicle inspection and testing program throughout the maintenance plan period. This assures that the maintenance plan won't need to be revised if the 2001 legislature amends the statute, and provides a small additional margin of safety to the plan if the legislature maintains the status quo.

Summary of Significant Public Comment and Changes Proposed in Response

All public comments received supported the proposed elimination of oxygenated fuel in Jackson County. Some offered the view that removal of the oxy-fuel requirement should become effective prior to EPA's approval. However, because oxy-fuel is currently a component of the State Implementation Plan the Clean Air Act requires EPA's approval before a change can be made. No changes to the maintenance plan revisions as they were proposed for public comment are being recommended.

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

Once the maintenance plan is approved by EPA Region 10, DEQ will suspend the oxy-fuel requirement. The Department expects to submit the revised maintenance plan to EPA shortly after adoption by the Environmental Quality Commission with a request for expedited review. Because expedited review requires a minimum of one year, the Department anticipates that the earliest the change could take effect would be the oxy-fuel season of 2002 - 2003.

Recommendation for Commission Action

The Department recommends that the commission adopt the proposed rule amendments and revisions to the Medford Carbon Monoxide Maintenance Plan as a modification to the State Implementation Plan (as presented in Attachment A and Appendix D-3).

Attachments

A. Amendments Proposed for Adoption
   1. Maintenance Plan
   2. Rule Amendments
B. Supporting Procedural Documentation:
   1. Legal Notice of Hearing
   2. Fiscal and Economic Impact Statement
   3. Land Use Evaluation Statement
   4. Questions to Reveal Justification for Differing from Federal Requirements
   5. Cover Memorandum from Public Notice
C. Presiding Officer's Report on Public Hearing
D. Index of Written Comments and Department's Evaluation of Comments
E. Advisory Committee Membership

Reference Documents (available upon request)

Written Comments Received
Appendix D-3 to SIP Volume 3

Approved:

Section:

Division:

Report Prepared By: Dave Nordberg
Phone: (503) 229-5519
Date Prepared: February 12, 2001

4.52.0 ACKNOWLEDGMENT AND SUMMARY

4.52.0.1 Acknowledgments

Without the efforts of numerous individuals in state and local governments and private entities who are dedicated to healthy air, this supplement to the Oregon State Implementation Plan would not have been possible. Special appreciation goes to:

- Rogue Valley Council of Governments (RVCOG) as lead agency for transportation planning and analysis in the maintenance plan;
- Medford-Ashland Air Quality Plan Advisory Committee: Mike Montero, Chair;
- Oregon Department of Transportation for travel modeling assistance.

Principal Author:

	Dave Nordberg	Air Quality Div., Airshed Planning,

Principal Contributors:

Oregon Department of Environmental Quality

	Annette Liebe	Manager, Airshed Planning
	Howard Harris	Air Quality Div., Airshed Planning
	Steve Aalbers	Air Quality Div., Technical Services
	Svetlana Lazarev	Air Quality Div., Technical Services
	Wes Risher	Air Quality Div., Technical Services
	Wendy Anderson	Air Quality Div., Technical Services
	Anthony Barnack	Air Quality Div., Technical Services
	David Collier	Air Quality Div., Airshed Planning
	Brian Fields	Air Quality Div., Technical Services

Oregon Department of Transportation

	Bill Upton	Manager, Transportation Planning Analysis Unit
	Mike Gillett	Transportation Planning Analysis Unit
	Monte Grove	Medford Area Manager

Rogue Valley Council of Governments

2000 Plan Revision	Bart Benthul	Transportation System Analyst

4.52.0.2 Executive Summary: The Medford Carbon Monoxide Maintenance Plan

Air quality monitoring results demonstrate that the Medford area (defined by the Urban Growth Boundary or UGB) meets the National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO). In accordance with the 1990 federal Clean Air Act Amendments (CAA), the Department of Environmental Quality (DEQ) is requesting the Environmental Protection Agency (EPA) to redesignate the Medford area to "attainment" status for carbon monoxide. Accompanying this request is a carbon monoxide maintenance plan required by the CAA that demonstrates how the area will continue to maintain acceptable levels of carbon monoxide at least ten years after EPA's approval. After this Redesignation Request/Maintenance Plan is adopted by the Oregon Environmental Quality Commission (EQC) it will be submitted to EPA Region 10 as an amendment to Oregon's State Implementation Plan (SIP).

Redesignation to attainment and approval of this maintenance plan will allow impediments to industrial growth in the Medford area to be removed and will shield the Medford area from the potential withholding of federal transportation funds under the Clean Air Act. In addition, plan approval will allow the requirement for wintertime oxygenated fuel to be lifted in the Medford area while at the same time ensuring that healthful air quality is continued well into the future.

4.52.0.2.1 Background

What is Carbon Monoxide?

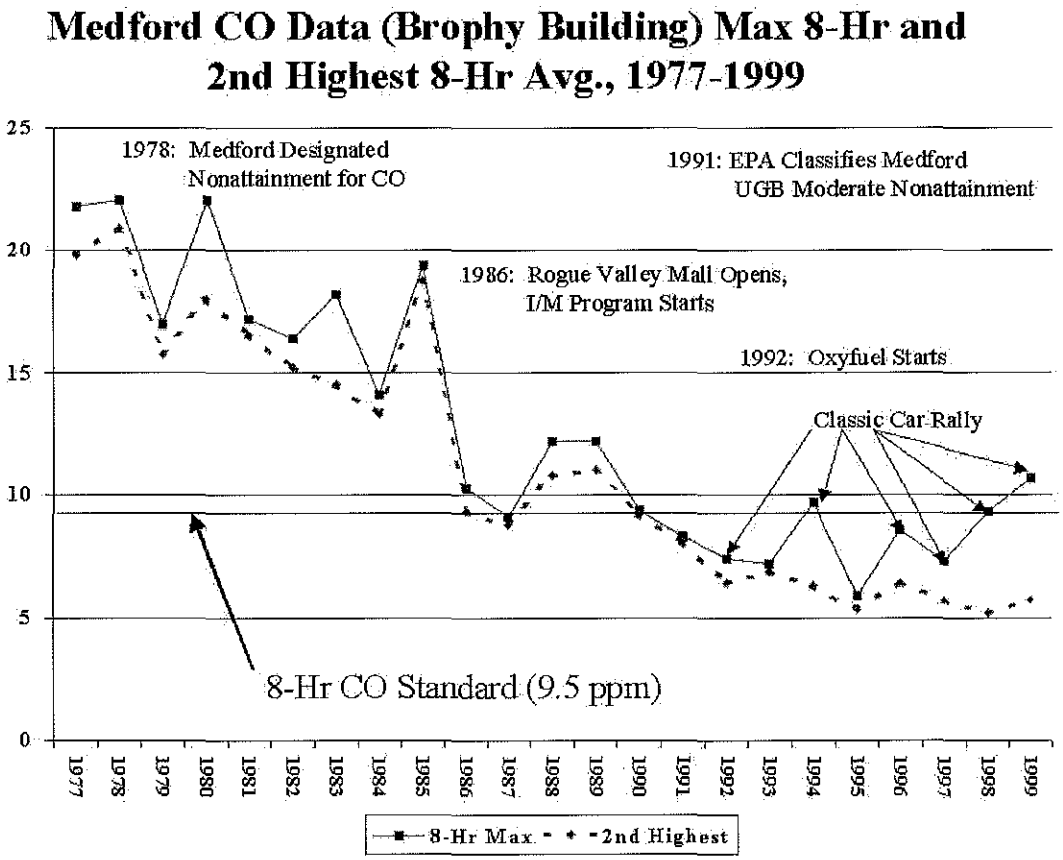
Carbon monoxide (CO) is a colorless, odorless, poisonous gas. It decreases the oxygen carrying capacity of the blood. High concentrations can severely impair the function of oxygen-dependent tissues, including the brain, heart and muscle. Prolonged exposure to even low levels of CO can aggravate existing conditions in people with heart disease or circulatory disorders. Motor vehicles are the predominant source of CO in Oregon, but another significant source includes wood stoves.

EPA established the NAAQS for carbon monoxide at 35 parts per million (ppm) for a 1-hour period and 9 ppm for an 8-hour period. Any measured CO concentration above these levels constitutes an exceedance of the CO standard under the Clean Air Act. (Due to the convention of "rounding off" fractional values, CO concentrations are considered to comply up through 9.4 ppm.) Two exceedances within one calendar year constitute a violation of the air quality standard. A violation, in turn, earns an area the designation of nonattainment for the given pollutant. Experience indicates the 8-hour CO standard is by far the more likely to be exceeded than its 1-hour counterpart.

Past CO Problem

The Medford area exceeded the 8-hour CO standard of 9 parts per million nearly every other day in the late 1970s. (During the same period, the 1-hour standard was not exceeded once.) Maximum 8-hour CO concentrations during that time were more than twice the standard allowed. By the 1980s, the frequency of exceedances declined dramatically, and maximum CO levels declined to the point where they exceeded the standard by approximately 50%. Measured concentrations continued to decline, and no violations have been recorded within the Medford nonattainment area since 1991. The trend in CO from the long-term Brophy Building CO monitor in downtown Medford is shown below in Figure 4.52.0.1.

Figure 4.52.0.1 Medford Downtown CO Trend



Success in Reducing CO

Carbon monoxide control strategies have been successful in bringing Medford into attainment with the 8-hour CO standard. Attainment was achieved at the Brophy Building site by 1990. Full compliance for the area was achieved in 1992 with no exceedances recorded at the Rogue Valley Mall CO monitor. Control strategies used to lower CO concentrations were:

Federal new car emission standards, DEQ vehicle inspection program, the Medford Parking and Traffic Circulation Plan (including the Bicycle Transportation Element) and the wintertime oxygenated fuel program that began in 1992.

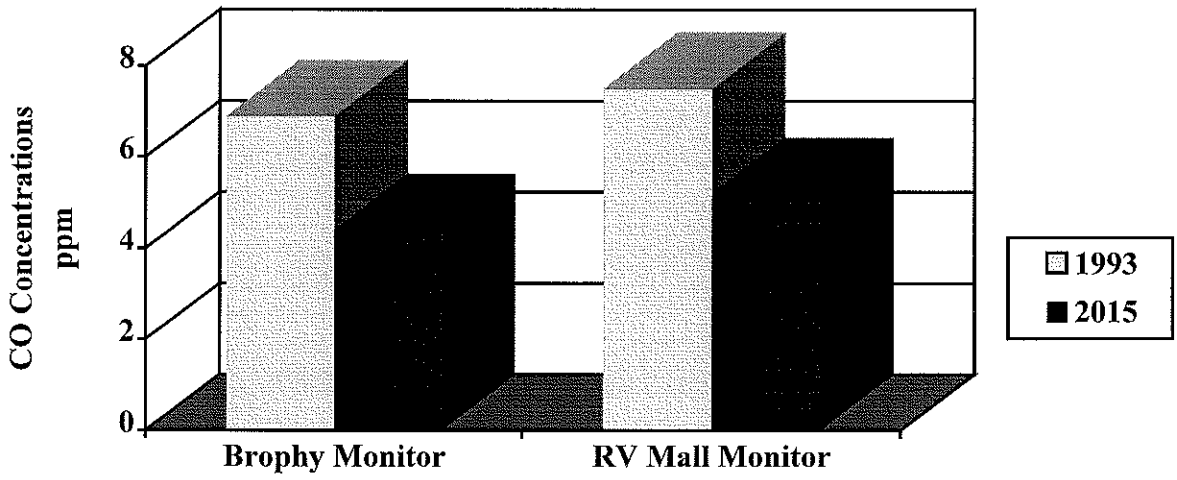
4.52.0.2.2 Need for a Maintenance Plan

Projections of Future CO Levels

Motor vehicle CO emission control equipment is projected to be increasingly effective at reducing air pollution in future years. Total emissions from on road motor vehicles are projected to decrease 61 percent from 1993 to 2015 despite the lifting of oxygenated fuel, and in spite of a 41 percent increase in the number of seasonal weekday vehicle miles traveled (VMT).

The travel forecast prepared for the Regional Transportation Plan (RTP) by the Rogue Valley Council Of Governments (RVCOG) was scaled to the Medford Urban Growth Boundary to determine the combined effect on carbon monoxide air quality of ,1) the increased efficiency of vehicle emission controls, and 2) the projected increases in growth and the number of vehicle miles traveled. Emissions were projected based on adopted population and employment forecasts in the long-range transportation plan. The Medford UGB is projected to increase by 18,719 residents between the years 1993 and 2015. Figure 4.52.0.2 shows the resulting CO concentrations projected through 2015. These concentrations reflect the influence of motor vehicles passing directly by the monitor and incorporate an estimated background level due to all other sources.

Figure 4.52.0.2 8-Hour CO Concentrations for Monitored Hot Spots



Benefits of Maintenance Plan

In order for the Environmental Protection Agency (EPA) to redesignate the Medford area from nonattainment to attainment, the Clean Air Act requires an enforceable maintenance plan to be adopted into the SIP that demonstrates how the area will continue to achieve the air quality standard for a minimum of ten additional years. EPA's approval of the Medford CO Maintenance Plan and redesignation to attainment will provide the following benefits:

Removal of the requirement for wintertime oxygenated fuel;

Assurance that the public will be protected from unhealthful levels of carbon monoxide;

The predictability of knowing what the regulatory requirements for carbon monoxide are likely to be for the next ten years;

The removal of industrial growth impediments (Lowest Achievable Emission Rate or LAER plus offsets).

4.52.0.2.3 Maintenance Plan Development Process

This Medford Carbon Monoxide Maintenance Plan was created in two stages. The initial plan was developed in 1998 as an outgrowth of the forecast in the Rogue Valley Council of Governments' long-range Regional Transportation Plan (RTP). Most of that work was done by Environ (a consulting firm) with the participation of the Department of Environmental Quality (DEQ) and the Rogue Valley Council of Governments (RVCOG). The work was done under the oversight of the Medford-Ashland Air Quality Plan Advisory Committee. The travel forecast at that time was done using a "quick response" travel modeling software package. This approach is

the simplest and least sophisticated level of analysis and one that relies heavily on national average travel survey data rather than customized data reflecting actual local conditions.

Results from the transportation plan provide basic inputs to the mobile emissions model. This includes detailed travel information on the speeds, routes and distances needed to estimate the amount of pollution contributed by motor vehicles in a given area. The transportation plan also provides population, employment and growth rate information that is used in a maintenance plan for inventorying and projecting pollution contributed by other sources of emissions: point sources, areas sources and nonroad motor vehicle sources.

The 1998 analysis of existing and projected future carbon monoxide emissions indicated the wintertime oxygenated fuel program had to be retained for the area to continue meeting the air quality standard. However, when the 1998 plan was developed, it was also understood that the computer models then in use overestimated future carbon monoxide emissions. This is because those models (Mobile 5a and Mobile 5b) overestimate the ability of oxygenated gasoline to reduce CO emissions, and underestimate how long motor vehicle pollution control equipment continues to work properly. It was also understood that new information regarding these factors would be incorporated into a new computer model of mobile emissions (Mobile 6) that was to be released by EPA in 1999. For this reason, the Advisory Committee recommended that the need for oxygenated fuel in the Medford area should be reevaluated when Mobile 6 became available.

With these considerations the original maintenance plan was adopted by the Oregon Environmental Quality Commission in August 1998 and submitted to EPA Region 10 for approval. At the Department's request, EPA assigned low priority to the processing of the Medford CO Maintenance Plan anticipating that a modified plan would be submitted shortly after the new Mobile 6 model was released. However, since then the release of Mobile 6 has been delayed repeatedly, and as of July of 2000, EPA did not expect the model to be officially available until 2001.

In order to avoid further delays, in the spring of 2000 EPA Region 10 approved the use of an interim computer model ("Mobile 5B Cold CO") for reevaluating the Medford CO Maintenance Plan. Mobile 5B Cold CO is a hybrid computer model developed as a stop gap mechanism to let cities with the worst carbon monoxide concentrations meet certain modeling and submittal requirements under the Clean Air Act. The hybrid model applies only to carbon monoxide. The model is a variation of the standard Mobile 5B—a variation that incorporates the algorithms used in the upcoming Mobile 6model. These algorithms reflect the updated understanding that future motor vehicle pollution control equipment will remain effective longer than previously thought, and that oxygenated gasoline (oxy fuel) will not lower CO emission reductions in the future as much as assumed in the past.

Therefore, in the spring of 2000, the Department began to use the Mobile 5b Cold CO model to reanalyze carbon monoxide emissions in both the 1993 baseline year and the projected future year of 2015. This new analysis was built on the results of a new Regional Transportation Plan recently completed for the Medford area. Although the new RTP was run on the same EMME 2

computer model as the previous transportation plan, it was improved to the level of a "best practices" model. The "best practices" designation indicates the revised analysis relied on customized data collected from the local area rather than generalized data derived from national averages. The "best practices" designation indicates the revised analysis relied on customized data collected from the local area rather than generalized data derived from national averages. This "best practices" approach produced a more sophisticated plan with different results for the population, and employment for the Medford area.

Combined, the revised Regional Transportation Plan and the updated mobile model produced dramatically different future projections for carbon monoxide emissions than had been forecasted by the 1998 analysis. More specifically, the 1998 analysis predicted carbon monoxide emissions in the year 2015 that were only slightly below the 1993 baseline or attainment year. By contrast, the revised analysis performed in 2000 showed CO emissions in 2015 to decline to 61% of the 1993 baseline emissions even with the removal of all requirements for oxygenated gasoline.

Since the area covered by the RTP is larger than the area encompassed by the Medford UGB, the RTP growth projections were scaled to the UGB on the basis of land use and zoning data. The Medford UGB was estimated to have a population of 54,644 in 1993. Based on the long-range forecast, the Medford UGB population is expected to grow to approximately 73,363 by 2015 (1.35 percent per year growth compounded annually).

In the 1998 effort, the Medford-Ashland Air Quality Plan Advisory Committee recommended the following key provisions:

- Continue the existing motor vehicle inspection program
- Continue the wintertime oxygenated fuel program
- Implement a Plant Site Emissions Limit management program (see Section 4.52.3.2.3)
- Amend existing New Source Review regulations
- Use a contingency plan that calls for implementation of additional measures to reduce CO if needed to reduce future elevated levels of the pollutant.

In the year 2000 reevaluation, the advisory committee recommended that the maintenance plan be modified three ways: 1) by removing the requirement for oxygenated fuel, 2) by adjusting the motor vehicle emissions budget to align it with vehicle emissions predicted by Mobile 5B Cold CO rather than the earlier model of Mobile 5A H, and 3) to adjust the emissions projections to accommodate the possible exemption of the four newest years of vehicles from the emissions inspection and maintenance program. In addition, the maintenance plan was revised to drop the Plan Site Emission Limit Management Program in light of the increasing margin of safety between the airshed capacity and the much lower amounts of emissions projected for the future.

4.52.0.2.4 Maintenance Plan Summary

This revision of the Medford Carbon Monoxide Maintenance Plan proposes to eliminate the wintertime oxygenated fuel program for Jackson County. Measures that will be relied upon to control carbon monoxide concentrations are as follow:

Federal New Car Program

The federal new car program has been and will continue to be the most effective CO emission reduction strategy. In contrast to other pollutants, vehicle CO emission controls have not experienced much deterioration of performance with increased age and mileage. An additional 37 percent reduction in the fleet average emission rate is expected between 1993 and 2015 as a result of federal requirements through the National Low Emission Vehicle regulations. Expected improvements in CO emission control technology include heated catalysts, which will help reduce the higher emissions from cold starts. The emission projections developed for the Medford CO Maintenance Plan do not rely on Tier II or any low sulfur fuel regulations.

Motor Vehicle Inspection Program

The basic vehicle inspection program will continue to operate. Gasoline powered and light duty diesel vehicles up to 20 years old and registered within the boundaries of the Medford-Ashland Air Quality Maintenance Area are subject to emissions testing and inspection at the time of registration renewal. This program, operating since 1986, has been effective in reducing CO pollution by promoting proper maintenance. The standards used in the program were selected on the basis of identifying vehicles that are operating outside their design limits. The standards and associated enforcement tolerances take into account a limited amount of engine wear and tear, but are not so lenient that "gross emitting" vehicles would pass an emissions test.

Woodstove Curtailment

Woodstove emission control efforts in the Rogue Valley have made significant strides in reducing particulate emissions through emission certification standards for new stoves, changeout programs to encourage removal of noncertified stoves and local ordinances to curtail burning during stagnant weather periods. The City of Medford revised its woodstove curtailment ordinance to align it with suggestions made by the Advisory Committee to improve overall effectiveness in reducing particulate emissions. All these efforts contribute to a decline of 20 percent in CO emissions from residential wood heating from 1993 to 2015.

CO Emissions Budgets

Transportation conformity regulations, required by the 1990 Federal Clean Air Act Amendments, provide for the creation/identification of motor vehicle emissions budgets in the State Implementation Plan (SIP). Emissions budgets establish a cap on emissions that may not be exceeded by predicted motor vehicle emissions. In the Medford area, RVCOG forecasts motor vehicle emissions as part of periodically updating the long-range, regional transportation plan (RTP) and the Transportation Improvement Program (TIP). RVCOG's emission forecast must be equal to or less than the SIP emissions budget(s).

Contingency Plan Elements

The maintenance plan must contain contingency measures that would be implemented either to prevent or correct a violation of the CO standard after the area has been redesignated to attainment. The Clean Air Act requires that measures in the original attainment plan be reinstated if a violation occurs. Under the contingency plan, adopted by the Advisory Committee, the DEQ would convene a planning group if the validated second highest (within one calendar year) 8-hour CO concentration equals or exceeds 8.1 ppm (90 percent of the 8-hour CO standard). A range of actions would be considered for implementation, each one designed to preserve air quality. However, if a violation of the 8-hour CO standard were to occur, control measures that would be restored include the requirement for oxygenated fuel, and requirements for Lowest Achievable Emission Rate (LAER) technology plus offsets for major new and modified industrial sources.

4.52.1 INTRODUCTION

4.52.1.1 Purpose of Redesignation Request and Maintenance Plan Document

This is a request for the Environmental Protection Agency to redesignate the Medford area to attainment for the pollutant carbon monoxide, and a Maintenance Plan that details how the area will continue to meet the carbon monoxide air quality standards into the future. This document complies with applicable 1990 Federal Clean Air Act (FCAA) and Environmental Protection Agency (EPA) guidance and policies.

4.52.1.2 History of CO Problem in Medford Area/Design Values

The Medford portion of the Medford-Ashland AQMA was designated by the Environmental Protection Agency (EPA) as a nonattainment area for carbon monoxide (CO) March 3, 1978. Pursuant to the 1977 Clean Air Act, a CO Control Strategy was submitted on June 20, 1979 with a request for an extension beyond 1982 to show attainment of the CO standard. At that time, the design value was 13.8 ppm, based on the Brophy Building air monitoring measurements from 1981 to 1983. This design value was established through a statistical procedure prescribed by the EPA guidance that was in effect at the time. EPA approved DEQ's 1979 plan and the extension, giving the Department until December 31, 1987 to bring the Medford portion of the Medford-Ashland AQMA CO nonattainment area into compliance. An updated control strategy was submitted in 1982 with a commitment to operate a locally run motor vehicle inspection program. In 1985 DEQ submitted a revised plan with the necessary adopted regulations to run a state operated inspection program.

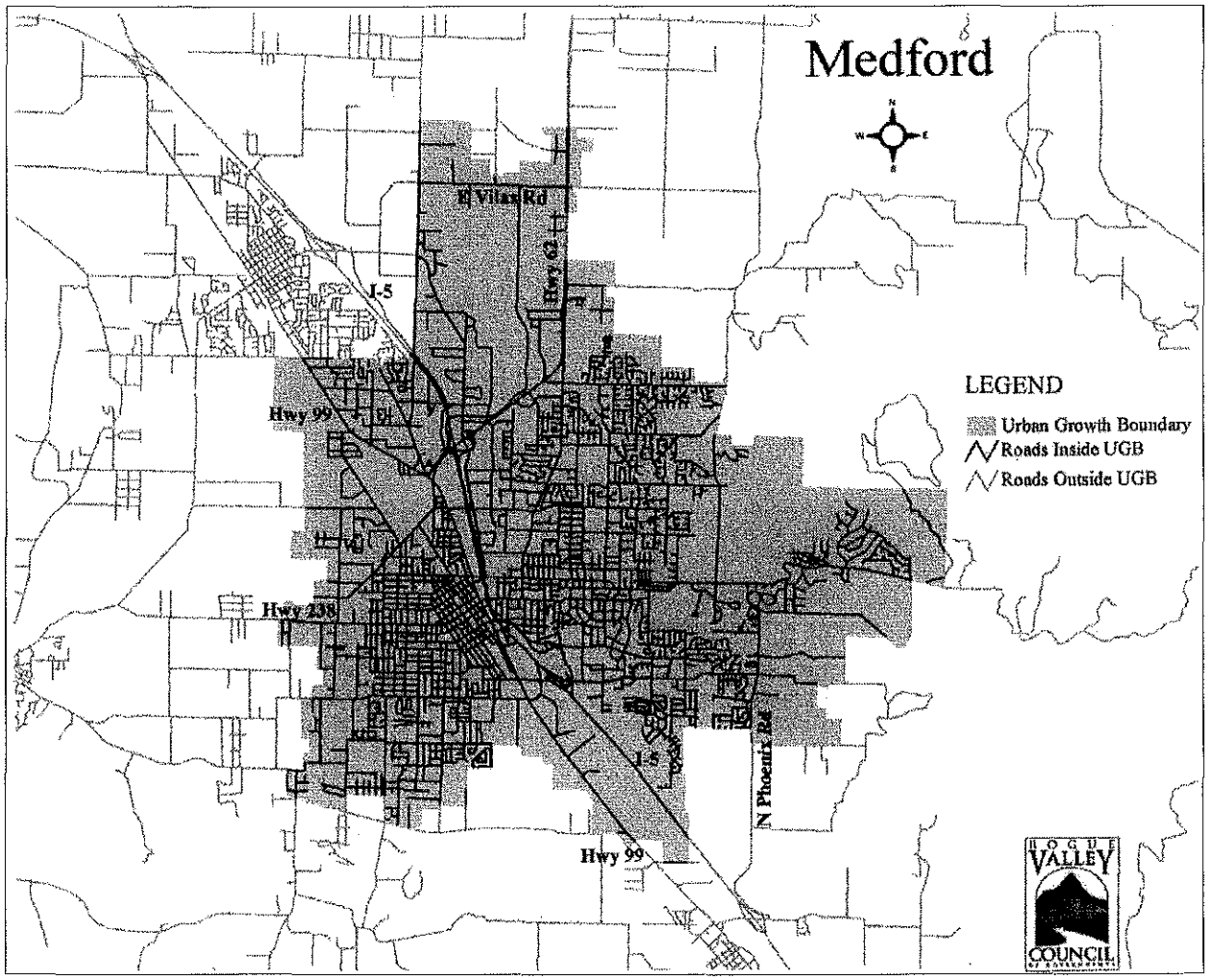
Following enactment of the 1990 Clean Air Act Amendments, the EPA classified the Medford area as a moderate CO nonattainment area based on a 1988-89 design value of 12.1 parts per million (ppm) recorded at the Rogue Valley Mall. Under the Act, moderate CO nonattainment areas were required to meet the National Ambient Air Quality Standard (NAAQS) for CO by December 31, 1995. The CO nonattainment boundary was defined as being the Medford, Oregon Urban Growth Boundary (UGB) which is the boundary used for comprehensive land use planning activities required by state law. (See Figure 4.52.1.1.) The current design value for the Medford CO nonattainment area is 7.5 ppm. As provided by EPA guidance, this design value is based on the annual second highest 8-hour CO concentration recorded during 1992 and 1993 at DEQ CO monitoring sites. The relevant design value was determined by the carbon monoxide monitoring conducted at the Medford Rogue Valley Mall.

Historically, several carbon monoxide monitoring sites in the Medford nonattainment area exceeded the 8-hour NAAQS for CO. Exceedances were recorded for approximately half of the year in the late 1970s. However, because the control measures in the State Implementation Plan (SIP) were effective at reducing CO emissions, Medford air quality has met the CO standard

since 1992. Given this evidence of compliance, the Medford area is eligible for redesignation to attainment under the terms of the 1990 Clean Air Act amendments.

4.52.1.3 National Ambient Air Quality Standards for Carbon Monoxide

Figure 4.52.1.1 Medford Carbon Monoxide Nonattainment Area



This Maintenance Plan addresses the ambient air quality standards for carbon monoxide defined in the federal Clean Air Act.

Carbon monoxide is a colorless, odorless gas that displaces oxygen in the body's red blood cells through normal respiration. Exposure to high levels of CO can slow reflexes, and cause confusion and drowsiness. Sufficiently high doses or prolonged exposures to carbon monoxide are lethal. People with heart disease are more susceptible to develop chest pains when exposed to high levels of CO. The major human-caused source of CO is incomplete combustion of carbon-based fuels primarily through the use of gasoline-powered motor vehicles. How a motor vehicle is operated and maintained has an effect on the amount of CO emitted. For example, in stop-and-go driving conditions, CO emissions are increased. Other important sources of carbon monoxide emissions are woodstoves, open burning and industrial boilers. Most serious CO concentrations occur during winter in urban areas, when cooler temperatures promote incomplete combustion and the when CO emissions are trapped near the ground by atmospheric inversions.

EPA established the National Ambient Air Quality Standards (NAAQS) for carbon monoxide at 35 parts per million (ppm) for a 1-hour average and 9 ppm over an 8-hour average. Any CO value monitored above these levels (as defined by federal rules and guidance) is an exceedance. Two exceedances in one calendar year constitute an air quality violation. If an area violates the standard, EPA designates it as a nonattainment area. Experience demonstrates that the 8-hour average is by far the more likely of the two standards to be exceeded.

The formal statement of the national 8-hour standard contained in the Code of Federal Regulations (40 CFR part 50.8) is:

> *The national primary ambient air quality standards for carbon monoxide are: (1) 9 parts per million (10 milligrams per cubic meter) for an 8-hour average concentration not to be exceeded more than once per year...*

40 CFR part 50.8 also specifies reference methods for measuring CO concentrations in ambient air, procedures for averaging data to determine 8-hour concentrations, and requirements regarding presentation of data. In addition, EPA also issued guidance specifying that an area must demonstrate two consecutive years with no violations of the NAAQS before an area can be considered to have attained the standard.

40 CFR part 50.8 defines how ambient air quality monitoring data are to be compared to the applicable NAAQS. It states that all monitoring data should be expressed to one decimal place, and indicates that standards defined in parts per million should be compared "in terms of integers with fractional parts of 0.5 or greater rounding." This led to an interpretation by EPA that any 8-hour CO concentration of less than 9.5 ppm would be equivalent to attainment. This rounding convention is therefore used for CO monitoring data in this Maintenance Plan to demonstrate compliance with the CO NAAQS.

In general, demonstrating "attainment" requires monitoring ambient air quality using approved measuring instruments and procedures, and verifying the results with a formal quality assurance/quality control program. All monitored locations within an area must meet the standard. No monitor may exceed 9.4 ppm more than one day during either of the two most

recent calendar years for an area to quality for redesignation. Air quality measurements in the Medford area satisfy this requirement as shown in Section 4.52.2 of this document.

4.52.1.4 Redesignation Criteria/Organization of Document

Section 107(d)(3)(E) and related provisions of the Clean Air Act (CAA)establish five key criteria that must be satisfied in order for a nonattainment area to be redesignated to attainment status:

- Attainment of NAAQS for CO: minimum 2 calendar years
- Full approval of the State Implementation Plan (SIP) under section 110(k)[1]
- Demonstration that air quality improvement is due to permanent and enforceable emission reductions (see section 4.52.2.4)
- Full approval of CO Maintenance Plan under section 175A
- Fulfillment of all applicable Section 110 and Part D requirements[2]

The following sections summarize these criteria and refer to additional discussion of each topic elsewhere in this document.

Attainment Verification

A nonattainment area seeking redesignation must have attained the applicable NAAQS. Attainment of the NAAQS for CO in the Medford area is discussed in Section 4.52.2, "Attainment Demonstration."

SIP Approval

EPA must have fully approved the applicable SIP for the area under Section 110(k) of the CAA. EPA approved the 1982 CO Attainment Plan, and subsequent 1985 revision, on February 13, 1987. This plan prescribed the control measures to lower carbon monoxide emissions enough for the area to meet the air quality standards.

The Jackson County Board of Commissioners adopted the CO Attainment Plan for the Medford-Ashland Air Quality Maintenance Area (AQMA) in August of 1982. This attainment plan identified the need for a motor vehicle inspection/maintenance (I/M) program and included a commitment to seek authorization from the Oregon Legislature to implement a biennial county-wide I/M program beginning January 1984. The Environmental Quality Commission adopted the attainment plan as part of the SIP in October 1982.

---

[1] Section 110(k) requires that the State satisfy all FCAA requirements applying to a specific nonattainment area in order to be redesignated.

[2] Section 110 contains general provisions needed in a SIP.

In February 1983 EPA proposed to approve the Medford CO plan upon county or state adoption of a specific I/M program, and the 1983 Oregon Legislature responded by granting Jackson County the necessary authorization.. The Jackson County Board of Commissioners adopted an I/M ordinance in January 1984 subject to voter ratification. In March 1984 the Jackson County electorate voted not to establish a vehicle inspection/maintenance program..

Also in March 1984, EPA proposed to disapprove the Medford CO Attainment Plan and proposed a construction moratorium on major stationary sources of CO because the plan did not provide control measures adequate to achieve the air quality standard. In September 1984 EPA finalized the plan's disapproval, specifically because an inspection/maintenance program had not been implemented. This action also implemented the construction moratorium on major new sources of carbon monoxide. At the same time, EPA applied federal funding sanctions on transportation and sewage treatment projects Jackson County that went in effect in May 1985.

In June 1985, the Oregon Legislature established a state operated inspection/maintenance program for the Medford-Ashland AQMA and EPA rescinded the sanctions on Jackson County the same month.

The Oregon Environmental Quality Commission amended the Attainment Plan to include the state-run inspection/maintenance program on September 27, 1985, and EPA approved the amended plan February 13, 1987.

Amendments to the Clean Air Act enacted in 1990 required carbon monoxide nonattainment areas to submit revisions to the State Implementation Plan to provide the following: 1) an Emission Inventory for 1990; 2) a wintertime oxygenated fuel program; 3) changes to inspection/maintenance programs; 4) regulations for Transportation Conformity measures; 5) New Source Review Rules for major sources; and 6) provisions for a Contingency Plan.

These requirements were addressed as listed: 1) The draft 1990 Emission Inventory was submitted to EPA Region 10 in November 1992, revised in response to EPA comments and is expected to be in conjunction with redesignation to attainment. 2) Rules for the oxygenated fuel program were submitted in October 1992. 3) DEQ submitted changes to the vehicle inspection/maintenance program in 1993 and 1994, which were approved by EPA in 1994. 4) DEQ submitted transportation conformity rules to EPA in 1995. 5) DEQ submitted New Source Review Rule revisions in 1992. 6)The carbon monoxide Contingency Plan was submitted in November 1993. These SIP revisions and compliance with Section 110(k) of the CAA are discussed in Section 4.52.4.1, "SIP Requirements/Nonattainment Area Requirements."

Permanent and Enforceable Improvements in Air Quality

The improvement in air quality must be due to permanent and enforceable reductions in emissions resulting from the implementation of the applicable SIP, federal air pollution control regulations, and other permanent and enforceable reductions. The permanent and enforceable nature of the reductions in emissions, which are responsible for improvements in ambient CO concentrations in the Medford area are discussed in Section 4.52.2.4.

Maintenance Plan Elements

EPA must have fully approved a maintenance plan meeting the requirements of Section 175A of the Clean Air Act for an area to be redesignated to attainment. Concurrent approval of the maintenance plan and redesignation request is expected. There are five essential parts to a Maintenance Plan: an attainment inventory, a maintenance demonstration, a commitment to continued air quality monitoring, a commitment to continued verification of attainment and a contingency plan. These elements are outlined in Table 4.52.1.1 together with the remaining redesignation requirements.

Table 4.52.1.1 Summary of Redesignation Requirements

Required Element	Section of Plan	
Attainment Verification	Section 4.52.2:	ATTAINMENT DEMONSTRATION
SIP Approval	Section 4.52.4:	ADMINISTRATIVE REQUIREMENTS
Permanent and Enforceable Improvements in Air Quality	Section 4.52.2:	ATTAINMENT DEMONSTRATION
Nonattainment Area Requirements	Section 4.52.4:	ADMINISTRATIVE REQUIREMENTS

Maintenance Plan Elements		
Attainment Inventory	Section 4.52.3:	MAINTENANCE PLAN
Maintenance Demonstration	Section 4.52.3:	MAINTENANCE PLAN
Monitoring Network	Section 4.52.4:	ADMINISTRATIVE REQUIREMENTS
Verification of Continued Attainment	Section 4.52.4:	ADMINISTRATIVE REQUIREMENTS
Contingency Plan	Section 4.52.3:	MAINTENANCE PLAN

SIP Section 110 and Part D Requirements

A state must have met all requirements applicable to the nonattainment area under Section 110 and Part D of the Clean Air Act. Compliance with Section 110 and Part D of the Act is discussed in Section 4.52.4.1, "SIP Requirements/Nonattainment Area Requirements."

4.52.2 ATTAINMENT DEMONSTRATION

4.52.2.1 Ambient Air Quality Monitoring Data

The Medford area has two carbon monoxide monitoring sites (see Appendix[1] D3-2). One site is located at the Brophy Building in downtown Medford at 10 N. Central. The Brophy Building monitoring site is operated 12 months a year. The DEQ has monitored carbon monoxide air quality at this location since 1977. The second air quality monitor is located at the Rogue Valley Mall at 1502 N. Riverside. This site is operated seasonally from October through March, and replaced an the earlier monitoring location at Crater Music, at 1414 N Riverside, where sampling was conducted from 1984 through 1987.

During the wintertime CO monitoring season, monitors continuously test air quality and derive 1-hour and 8-hour averages electronically using data loggers and integrators. Once the results are reviewed and confirmed through formal quality assurance procedures, they are entered into the Aerometric Information Retrieval System (AIRS) which makes them accessible to EPA. These test results provide the basis for demonstrating that the carbon monoxide air quality standard has been achieved.

4.52.2.2 Attainment Years and Concentrations

Air quality in downtown Medford has complied with the NAAQS for CO for ten consecutive years. Air quality at the Rogue Valley Mall site has complied with the standard for eight consecutive years.

Below are the last violations recorded at each monitoring site:

Year	8-Hr 2nd High	Location
1989	11.0 ppm	Brophy Building
1991	10.5 ppm	Rogue Valley Mall
1987	9.5 ppm	Crater Music

The last wintertime exceedance of the NAAQS for CO in downtown Medford occurred on 12/19/89 (11.0 ppm) at the Brophy Building. The last exceedance at the Rogue Valley Mall monitor occurred on 01/05/91 (10.5 ppm). The five highest 8-hour CO concentrations for the last five year period from 1995 to 1999 are shown in Table 4.52.2.1.

[1]Note: All appendix references in this Maintenance Plan refer to Volume 3 of the Oregon State Implementation Plan, unless otherwise noted.

Table 4.52.2.1 Medford Carbon Monoxide: Five Highest Values from 1995 to 1999 (Non-Overlapping 8-Hour Averages in Parts Per Million)

Monitoring Site Concentrations	Date
Brophy Building	
10.6 ppm	06/19/99
9.4 ppm	06/20/98
8.6 ppm	06/15/96
7.3 ppm	06/14/97
6.4 ppm	01/12/96
Rogue Valley Mall	
6.8 ppm	01/05/99
6.7 ppm	11/01/96
6.6 ppm	01/03/96
6.4 ppm	12/27/99
6.3 ppm	01/06/99

For the five years reviewed, only a single sample at one of the monitors exceeded the standard. The two sites differ in the time of year when the highest values are obtained. The Rogue Valley Mall monitor typically records its highest concentrations during winter—the CO season. The Brophy monitor, on the other hand, sometimes records its highest concentrations during June, when an annual classic car rally is held in Medford. These data reveal the effectiveness of the federal emission control standards in reducing CO levels, but also point out the need to make sure the classic car rally does not cause future violations of the standard.

To that end, the Department and the city of Medford negotiated an agreement to ensure that all reasonable steps are taken to prevent the car rally from contributing to air quality violations. The agreement (outlined in Appendix D3-11) calls for changing the traffic signal pattern to flashing yellow during the car rally to encourage smooth traffic flow. The city and the Department will monitor and evaluate the effectiveness of this method to control high CO concentrations.

The long-term concentration trends for both monitoring sites are declining as shown in Figure 4.52.2.1 and Figure 4.52.2.2.

Figure 4.52.2.1 Medford 8-Hour CO Trend at Brophy Building

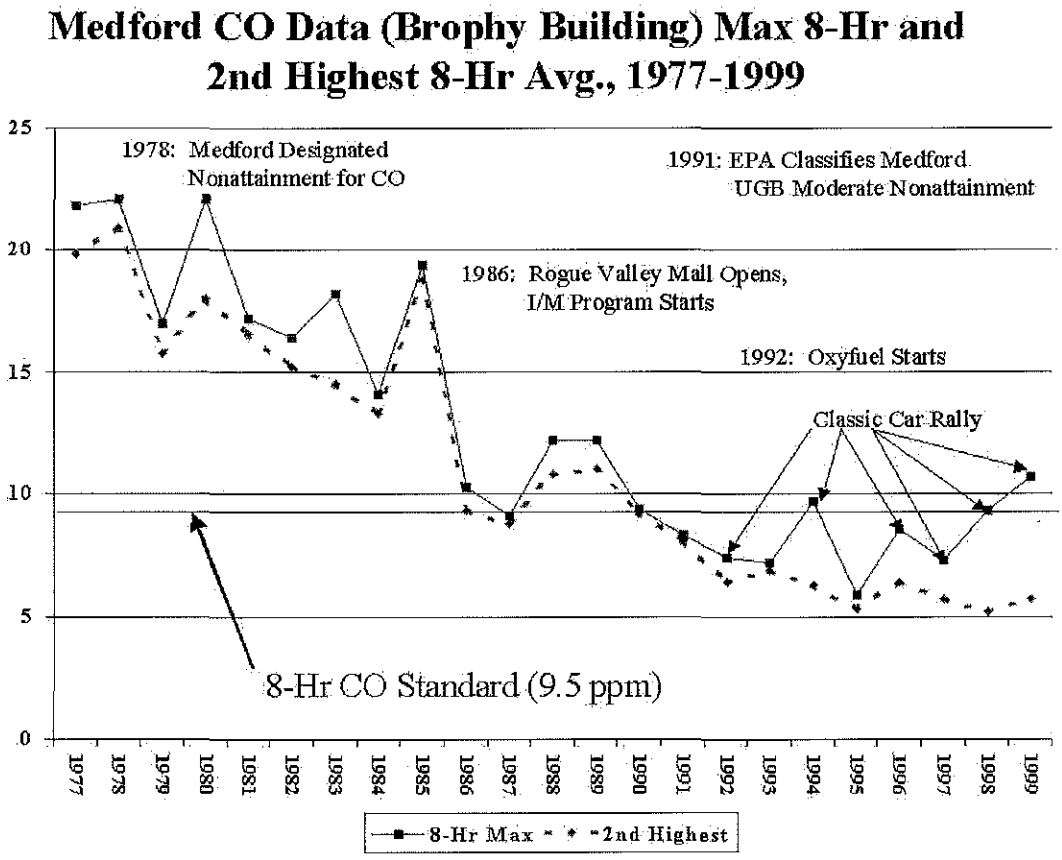
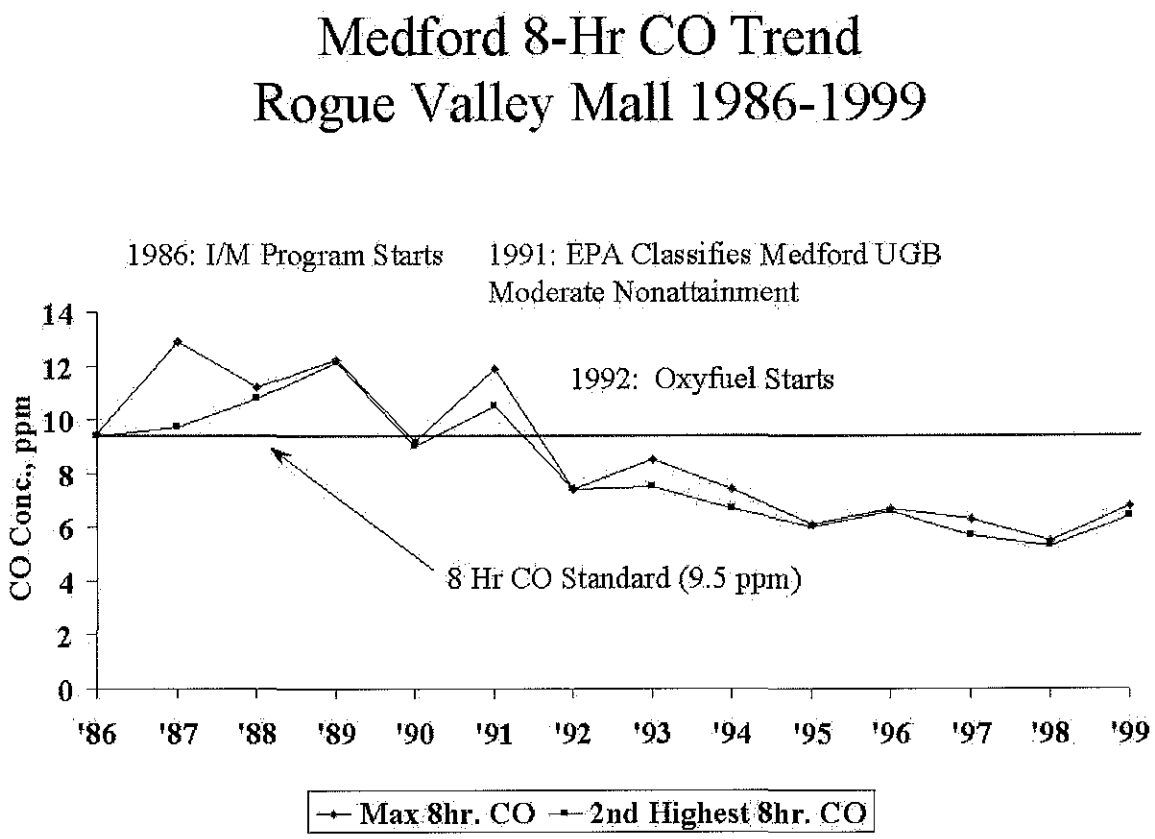


Figure 4.52.2.2 Medford 8-Hour CO Trend at Rogue Valley Mall



4.52.2.3 Summary of Ambient Air Quality Data

Table 4.52.2.2 below summarizes the second highest 8-hour CO concentrations that have been recorded since 1977 at DEQ's current and historic CO monitoring locations.

Table 4.52.2.2 Second High 8-Hour Carbon Monoxide Concentrations (1977-1999) (in Parts Per Million)

Year	Brophy Building	Crater Music	Rogue Valley Mall
1977	17.2		
1978	19.2		
1979	13.7		
1980	16.2		
1981	14.4		
1982	13.2		
1983	12.6		
1984	11.5	12.4	
1985	16.3	13.3	
1986	9.3	12.6	
1987	8.8	9.5	9.7
1988	10.8		10.8
1989	11.0		12.1
1990	8.2		9.0
1991	8.1		10.5
1992	6.4		7.4
1993	6.9		7.5
1994	6.3		6.7
1995	5.3		6.0
1996	6.4		6.6
1997	5.7		5.7
1998	5.2		5.3
1999	5.7		6.4

4.52.2.4 Permanent and Enforceable Improvement in Air Quality

For an area to be redesignated to attainment, EPA requires that air quality improvements must be reasonably attributable to emission reductions that are both permanent and enforceable. Economic downturns and unusual meteorology are factors cited that might temporarily lower CO concentrations and produce an "artificial" attainment record. Therefore, EPA asks that a redesignation request provide evidence demonstrating that an area did not achieve the air quality standards simply as a result of slowed economic activity or favorable weather conditions. This section addresses these issues.

Economic Effects

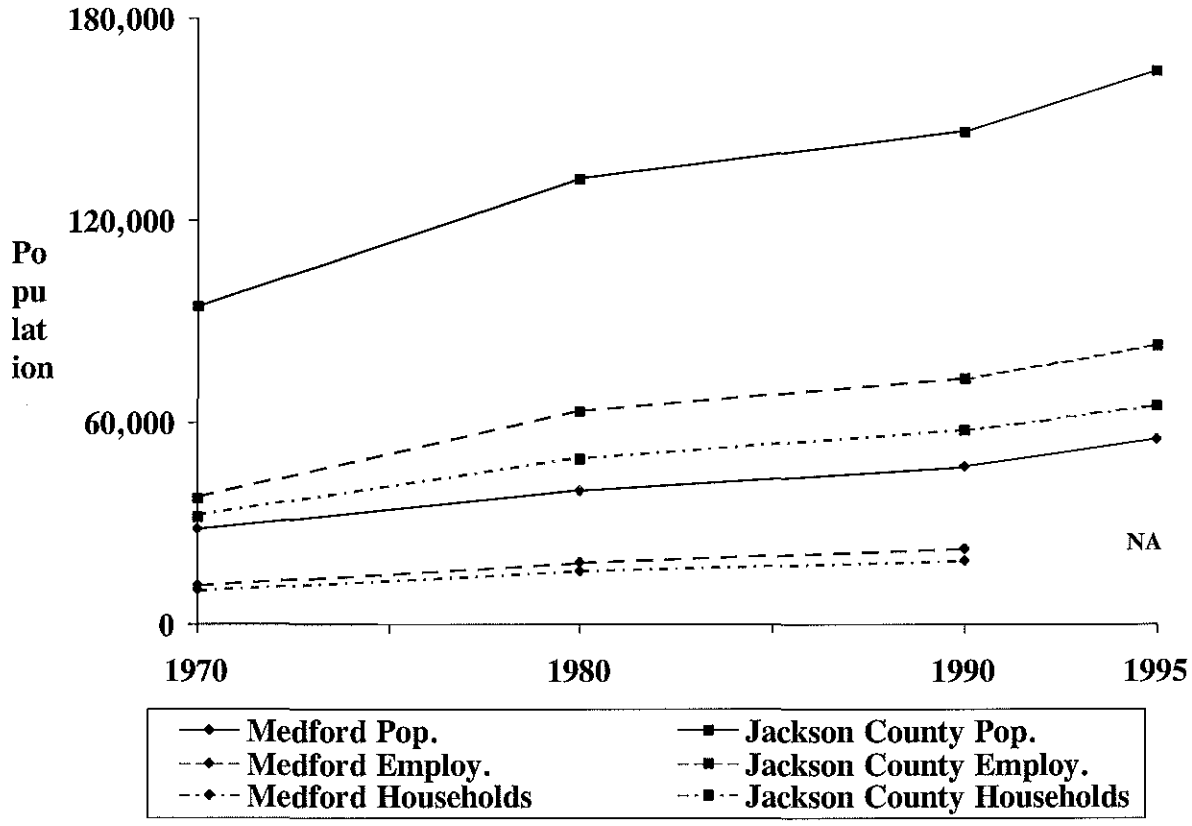
Population and employment are key indices of the overall level of economic activity and growth, reflecting changes in industrial activity and travel demand. Medford is the largest city in the Rogue Valley region. The population, employment and housing data are displayed for both the city of Medford and Jackson County in Figure 4.52.2.3. Information on the population and household projection figures used in developing this maintenance plan is presented in Appendix D3-6.

Despite a recession in the early 1980s and a substantial decline in employment from wood products manufacturing, the data show the area has generally sustained a growth pattern since the 1970s. Even with these influences, Jackson County still showed relatively strong employment growth relative to other parts of the state. Employment grew by 3.65% in the county from 1970 to 1994 placing Jackson County 8t out of Oregon 36 counties. The employment growth rate was 2.72% from 1980 to 1994 putting the county in 5th place.

The Medford area reached attainment in 1992 when there was rapid growth occurring throughout the Rogue Valley. Attainment for CO was achieved despite this growth; therefore, the improvement in Medford's CO air quality has not been due to a downturn in economic conditions.

Meteorological Effects

Figure 4.52.2.3 Population, Employment, Housing in Medford and Jackson County



Source: Population: US Bureau of Census (1970, 1980, 1990); Portland State University estimate (July 1, 1995); Employment: US Bureau of Labor Statistics (Medford), Oregon Employment Department (Jackson County)
Housing: US Bureau of Census

Peak carbon monoxide concentrations generally occur together with low wind speed. This section presents Medford wind speeds during the six month periods from October through March for the years 1985 to1996. Review of this data indicates that lower CO concentrations during recent years do not seem to be caused by atypical weather. The procedures and data for this meteorological analysis are summarized below.

Hourly wind speeds recorded at the Medford airport were collected for this analysis and are listed in Table 4.52.2.3 and Figure 4.52.2.4.

Table 4.52.2.3 Hours of Low Winds -- October through March

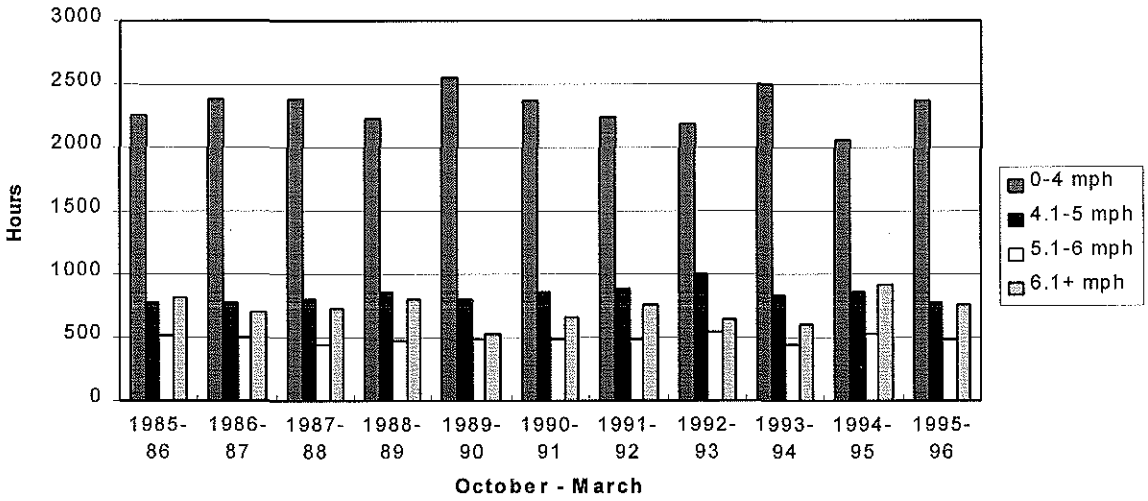
Recorded at Medford Airport

Year	Wind Speeds						
	0 - 4.0 MPH (Hrs.)	Rank - Most to Least Stagnant	4.1 - 5.0 MPH (Hrs.)	5.1 - 6.0 MPH (Hrs.)	Total Hours 0 - 6 MPH	Rank - Most to Least Stagnant	6.1+ MPH (Hrs.)
1985-86	2,264	7	773	520	3,557	10	811
1986-87	2,390	3	772	501	3,663	5	705
1987-88	2,390	4	801	443	3,634	6	734
1988-89	2,229	9	862	471	3,562	9	806
1989-90	2,556	1	806	482	3,844	1	524
1990-91	2,377	5	854	483	3,714	4	654
1991-92	2,247	8	880	485	3,612	8	756
1992-93	2,186	10	994	539	3,719	3	649
1993-94	2,502	2	824	445	3,772	2	596
1994-95	2,057	11	852	528	3,450	11	911
1995-96	2,368	6	776	489	3,623	7	751

At the Brophy Building, the highest and second highest number of carbon monoxide exceedances during the period 1985 to 1996 occurred in 1985 (35 exceedances) and 1989 (8 exceedances). The same two calendar years had the highest and second highest number of exceedances at the Rogue Valley Mall. The winter of 1989-90 had the highest number of hours with low winds (0 to 4.0 mph) and the winter of 1985-86 had the 7th highest number of hours of winds in the lowest category. After the area began meeting the carbon monoxide standard in 1992, the amount of low winds did not change appreciably. For example, the winters of 1993-94 and 1995-96 experienced the 2nd and 6th highest number of hours (respectively) of 0 to 4.0 mph winds. Carbon monoxide levels remained good during these years even though their low wind speed ranking of 2nd and 6th closely compares to 1st and 7th low wind ranking of the high exceedance years.

Wind variation from year to year is small and the trend toward air quality improvement is relatively stable. For the period covered here, the maximum number of low wind hours occurred in 1989-90 (2,556 hours) and the lowest number of low wind speed hours occurred in 1994-95 (2,057 hours). The data for only two of the eleven years fall outside one standard deviation of the entire eleven years reported. Most winters reported since 1985-86 had an amount of stagnation similar to that nonattainment year.

Figure 4.52.2.4 Wind Speed During Winter Season



The number of hours of low wind speeds (<4.0 mph) shows modest variation from season to season indicating that improvements in CO concentrations are not likely to be caused by increased ventilation. With the possible exception of the winter of 1994-95, the period since 1992 when attainment was achieved does not appear to have significantly better dispersal conditions than previous winters when the standard was exceeded often.

Permanent and Enforceable Emission Reductions

Permanent and enforceable control measures that were in place during the attainment period are listed below.

1. Federal Measures: Federal Motor Vehicle Control Program establishing emission standards for new motor vehicles.

2. State Implementation Plan (SIP) measures:
   a. Major New Source Review Program (Lowest Achievable Emission Rate and offsets). [Rule citation: OAR 340-224-0010 through 340-224-0110.]
   b. Biennial "basic" vehicle inspection and maintenance within the Medford-Ashland AQMA boundary since 1986. [Rule citation: OAR 340-256-0300 through OAR 340-256-0450.]
   c. Computerized traffic signal system.
   d. Roadway improvements.
   e. Medford Bicycle Plan.

All these measures helped counteract the effects of increased activity of carbon monoxide sources in the Medford area and helped bring the area into attainment. A wintertime oxygenated fuel program was implemented in Medford during 1992, as required by the 1990 Clean Air Act

amendments. The air quality data show that compliance with the National Ambient Air Quality Standard was achieved in the Medford CO nonattainment area after the oxygenated fuel program began.

4.52.2.5 Demonstration that DEQ's CO Monitoring Sites Represent Worst Case Concentrations

Evidence presented in this section demonstrate that DEQ monitors CO at locations representing worst case or peak concentrations. Specific elements include:

- Wide ranging field sampling conducted by the DEQ in comprehensive efforts to identify areas with high peak CO levels.
- Screening techniques used to identify intersections with potential for high CO concentrations.
- Available historical field studies indicate that the DEQ CO site network tends to record higher CO concentrations than all of the screened intersections.

4.52.2.5.1 DEQ Has Conducted Comprehensive CO Field Studies

The DEQ made vigorous efforts to identify areas with the highest peak CO concentrations. It conducted studies that entailed monitoring at more than 15 different locations during the winters of 1979/80, 1983/84, 1985/86, and 1995/96. Based on this work DEQ concluded that the Brophy monitor best represents peak CO levels in Central Medford and provides historical trends for the area of the city that formerly had the highest CO levels. The studies also confirmed that North Medford remains the most critical CO problem area, especially after the opening of the Rogue Valley Mall. Although mean CO levels were higher at the Crater Music site, peak CO concentrations have been highest at the Rogue Valley Mall monitor. Peak CO concentrations are more important for comparison to the health standards and so the continuous gas monitor was established at the Rogue Valley Mall site in 1987. Saturation monitoring was also done in response to traffic signalization improvements to ensure that peak concentrations were still being recorded at the continuous gas monitoring locations. This work confirmed that the existing network is appropriately sited. This large body of work is evidence that the DEQ CO site network has been continually reevaluated and can reasonably be considered to represent worst case CO concentrations.

4.52.2.5.2 Screening Techniques Used To Identify Intersections With Potential For High CO Concentrations

A screening analysis was used to identify the three highest intersections by volume and the three highest intersections by congestion. The specific algorithm used as a measure of congestion was "V * V/C," or volume weighted by volume divided by capacity. The volume and capacity

numbers were derived from Rogue Valley Council of Government's transportation model outputs for the former base year of 1990. The base year was subsequently updated to 1995 during 1999 and 2000. This is screening technique commonly used by CO planning organizations.

A value of V*V/C was determined for each intersection leg, and those values were totaled for the intersection node. Table 4.52.2.3 below lists the six intersections with the highest screening values in rank order.

Table 4.52.2.4 Six Highest Intersections Screened by Volume and Congestion Using RVCOG's 1990 Base Year[2]

Intersection	Screening Value by Volume
1. Crater Lake Hwy & Hwy 99 (Big Y)	45,088
2. Biddle Rd. & McAndrews	41,921
3. Riverside & McAndrews	38,497

Intersection	Screening Value by V*V/C
1. Crater Lake Hwy & Hwy 99 (Big Y)	34,751
2. Biddle Rd. & McAndrews	33,246
3. Riverside & McAndrews	32,130

(2. Figures in this table are based on RVCOG's 1998 transportation modeling.)

Each screening method resulted in the identification of the same intersections. In Section 4.52.2.5.3 below, analysis of special sampling study results is presented demonstrating that DEQ's network of CO sites experience higher peak concentrations than each of the above screened intersections. This provides further indication that the Department's monitoring network peak values represent "worst case" CO concentrations.

4.52.2.5.3 Available Field Studies Indicate DEQ's CO Monitoring Network Records CO Concentrations Higher Than Screened Intersections.

Evidence referred to in this section substantiates that DEQ's two CO monitors generally record concentrations higher than the two, non-monitored intersection locations with the highest screening values. Details underlying the conclusions discussed in this section are presented in Appendix D3-3.

Twelve sites were monitored for CO concentrations during the winter of 1995-1996. Sampling began December 19, 1995, and concluded February 1, 1996. A pair of bag samplers were co-located at the Rogue Valley Mall (Riverside and McAndrews) permanent monitoring site for quality assurance purposes. One of the screened intersections (Biddle Rd. and McAndrews Rd.) had a maximum 8-hour CO concentration of 5.1 parts per million (ppm) on January 3, 1996,

which was the highest sampling day for this site. However, for this date and the same block of hours, the Brophy monitor and the Rogue Valley Mall monitor recorded maximum 8-hour CO concentrations of 6.0 ppm and 6.2 ppm, respectively. At the Rogue Valley Mall permanent monitoring station, the annual second highest 8-hour maximum CO concentration (6.6 ppm) was recorded on January 3, 1996.

The Big Y intersection was not sampled in the 1995-1996 study, but was examined by comparing its 1993 CO emissions to 1993 CO emissions at the Riverside & McAndrews intersection in a proportional analysis, similar to the rollforward analysis (in Section 4.52.3.2.4). The proportional analysis resulted in an estimated 1993, 8-hour CO concentration of 6.3 parts per million (ppm) at the Big Y intersection, which was lower than the annual second highest 8-hour CO concentration (7.5 ppm) for 1993 recorded at the Rogue Valley Mall site.

Although the sampling period was characterized by milder and wetter conditions than normal, the sampling results supported a continuation of the existing CO monitoring network siting as representing maximum CO exposures.

4.52.2.6 Conclusions Regarding Demonstration of Attainment

This section 4.52.2 refers to monitoring data that shows the Medford area now attains the CO NAAQS, and it demonstrates that such data can be reasonably characterized as representing "worst case" peak concentrations. Economic data was cited to show attainment has not been attributable to a "downturn" in the Medford area economy. Meteorological data evaluation was presented to show recent year compliance was not attributable to especially favorable meteorology. Intersection screening analysis was used to identify intersections with high potential for peak CO concentrations. The Department's bag study of 1995-1996 was used together with some actual traffic volume data to demonstrate that the DEQ network of CO sites captures peak concentrations that are higher than the two screened intersections that are not monitored.

DEQ conducted field studies that sampled concentrations at more than 15 locations to identify locations with peak CO levels. New CO sites have been added when evidence indicated other locations were recording high peak values. Meteorological analysis was conducted to show that the meteorological conditions during the bagger studies included conditions commonly associated with high CO periods. This provides further evidence that the bag sampling studies effectively identified areas of maximum CO exposure. The comprehensive special studies, and the meteorological analysis demonstrate that the DEQ CO monitoring network samples worst case CO concentrations and that the data gathered by the monitoring network legitimately indicates the area currently attains the air quality standard.

4.52.3 MAINTENANCE PLAN

A Redesignation Request/Maintenance Plan under the federal Clean Air Act Section 175A(a), must demonstrate that the air quality standard will be maintained for at least 10 years after redesignation. This maintenance demonstration through the 2014/15 CO season is documented below. The maintenance demonstration shows that the National Ambient Air Quality Standard (NAAQS) for carbon monoxide (CO) will not be violated at least until the beginning of the 2015/2016 CO season or November 1, 2015.

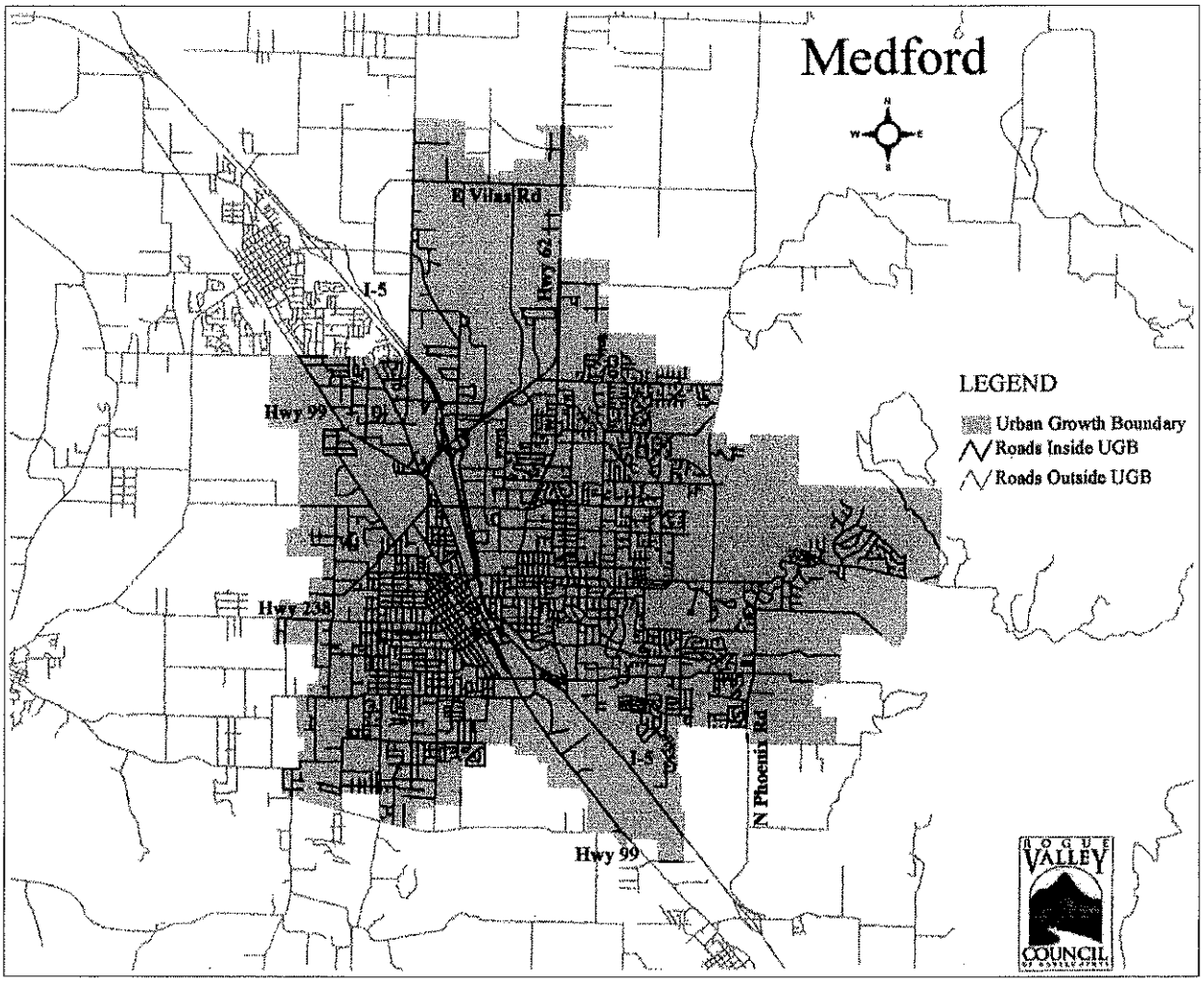
4.52.3.1 Attainment Inventory

As part of the Maintenance Plan an "attainment" emission inventory was developed. Future emission inventories must show that emissions remain at or below this attainment level. The attainment emission inventory attempts to represent emissions during the time the air quality standard is being attained. The year 1993 was chosen as Medford's attainment year since it fell within the attainment period and had meteorology more conducive to the build up of air pollution than other years since the standard had been achieved. As the meteorological analysis indicated, 1993 had similar conditions for the dispersion of air pollutants as any other year from 1985 to 1996. For a Maintenance Plan to be successful, and to be consistent with EPA guidance for CO Maintenance Plan approval, Medford area CO emissions must stay below 1993 emission levels.

An emission inventory consists of emission estimates from all sources of carbon monoxide. These sources include industrial sources, on-road mobile sources (e.g. cars and trucks) non-road mobile sources (e.g., construction equipment, recreational vehicles, lawn and garden equipment), and area sources (e.g., outdoor burning, woodstoves, wildfires). These emission sources are tabulated in terms of the number of pounds of CO emitted during a typical winter day.

An inventory of 1993 CO emissions was prepared for the Medford area as well as an inventory of future emissions projected to be emitted in the Medford area in the year 2015. These emissions are summarized in Table 4.52.3.1. together with emissions for three intermediate years which were estimated by straight line interpolation between the 1993 and 2015 analysis years. (Section 4.52.3.2.1 below, presents the 1993 inventory along with emission projections for four future years). Emissions for on-road mobile sources were calculated by applying EPA's "Mobile 5b Cold CO" emission factor computer program to the Rogue Valley Council of Governments' (RVCOG) model of Medford's transportation network. The procedures for calculating the attainment emission inventories and detailed results are presented in Appendix D3-4.

Figure 4.52.3.1: Medford Carbon Monoxide Nonattainment Area



4.52.3.2 Maintenance Demonstration

4.52.3.2.1 Inventory Projections

Figure 4.52.3.2 shows the Medford area CO emissions projected to the year 2015. Table 4.52.3.1 presents the 1993 emissions and projected future CO emissions in four major source categories. The procedures used for projecting these emissions and detailed results for individual sources are presented in Appendix D3-4.

Projected Results without Oxygenated Fuels

Regional emissions in the 1993 baseline year are inventoried at 112,143 pounds of CO per day with the effect of the required wintertime oxygenated fuel program. Regional emissions for the year 2015 are projected to fall to a total of 67,872 pounds per winter day. This is a projected 39% decrease in CO emissions from the 1993 level, and is largely due to the decreased emissions from on-road mobile sources. The emission reduction comes despite the lifting of the wintertime oxygenated fuel program and the potential modification of the vehicle inspection/maintenance program to remove the four newest years of vehicles from the program rather than the two newest years. In the event the vehicle inspection/maintenance program continues to "exempt" only the two newest years of vehicles, emissions in 2015 are projected to fall an additional 74 pounds of CO per winter day (to a total of 67,798 pounds per day).

The dramatic decrease of CO emissions is primarily the result of new information on the "in use deterioration rate" of the pollution control equipment used on 1996 and newer vehicles. This new information reveals that current emission control equipment functions properly much longer than previously thought. This effect becomes increasingly pronounced as fleet turnover produces ever increasing fractions of the newer vehicles. Area Source emissions also decrease steadily over the maintenance period. Actual Point Source (industrial) emissions decrease sharply during the initial portion of the of the projected period due to plant closures and permanent changes in plant equipment. Following this initial drop, point source emissions grow slowly at the rate of industrial employment growth predicted for the area. Non-road mobile source emissions are projected to grow 41% percent during the 1993-2015 period primarily as a function of population growth.

In net, the large projected decrease of on-road mobile emissions dominates the total emissions projected for the future. These inventories show that total emissions in all years after 1993 stay well below the level of 1993 attainment emissions.

Figure 4.52.3.2 CO Emission Projections

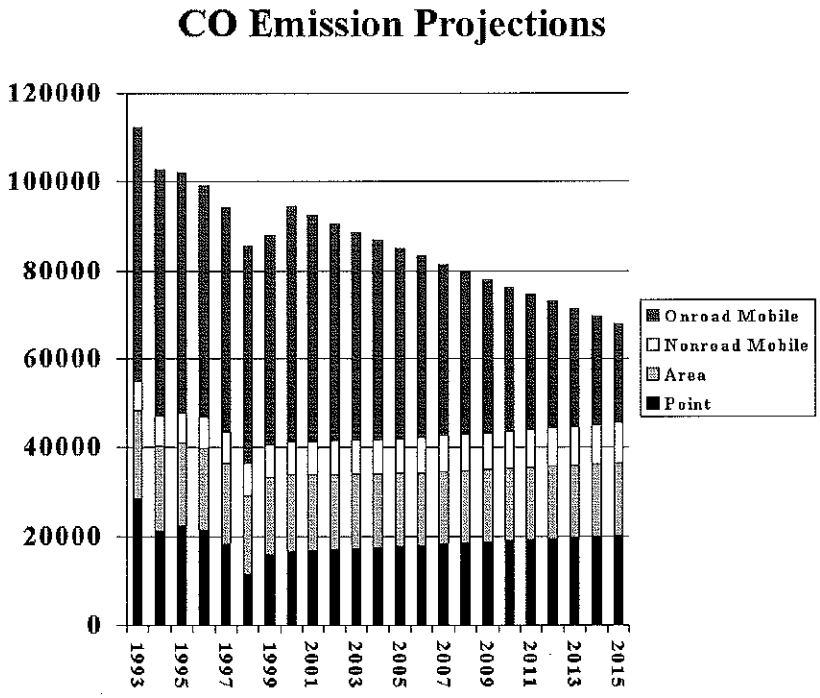


Table 4.52.3.1: CO Emissions Attainment and Projection Inventories*

CO Emissions: CO Nonattainment Area = Medford Urban Growth Boundary
(Pounds CO/Winter Day)

Year	1993	2000	2005	2010	2015
Area Sources	19,748	17,307	16,496	16,207	16,288
Non-Road Mobile Sources	6,536	7,411	7,926	8,543	9,186
Point Sources	28,517	16,485	17,708	18,930	20,842
On-Road Mobile Sources	57,342	53,217	42,893	32,568	20,153
Total	112,143	94,419	85,022	76,249	67,872

*The 1993 inventory represents a wintertime oxygenated fuel program and a "basic" I/M program. Remaining inventory years reflect no oxygenated fuel program and a basic I/M program which exempts the four newest years of vehicles.

4.52.3.2.2 Transportation Emissions Budgets for Conformity

The federal and state transportation conformity regulations require that mobile source emissions resulting from implementation of the regional transportation plan (RTP) and transportation improvement program (TIP) meet certain criteria to ensure compliance with the Clean Air Act.

Prior to approval of the maintenance plan, a proposed Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) must show it complies with either the build/no build test, or the "Less than 1990" test. The first test is a comparison of the proposed RTP and TIP (or "action scenario") to the existing situation (or "baseline scenario"). This test requires that the emissions from the action scenario do not exceed emissions from the baseline scenario. The second test is a comparison of emissions produced in the action scenario to the emissions produced in 1990.

After approval of the maintenance plan by the Environmental Quality Commission (EQC) an additional conformity test applies: the RTP and TIP must comply with the transportation emissions budgets specified in the plan. This test is designed to prevent violation of the NAAQS because transportation emissions are not allowed to exceed the amount relied upon in the maintenance demonstration. Upon EPA approval of the emissions budget, the requirements of the build/no-build test and the less than 1990 test will be eliminated, leaving only the budget test to assess regional carbon monoxide emissions. Requirements to assess localized or "hot-spot" carbon monoxide emissions will continue to apply independently throughout all periods.

The transportation conformity motor vehicle emissions budget for the area within the Medford Urban Growth Boundary (UGB) is shown in Table 4.52.3.2.

Table 4.52.3.2: On-Road Motor Vehicle Emissions Budget Through 2015

Medford Transportation CO Emissions Budget (Pounds CO/Winter Day)
(CO Non-Attainment Area = Medford UGB)

Year	1993	2015	2020 and after
Budget (1st 4 yrs I/M exempt)	63,860	26,693	32,640

The Motor Vehicle Emission budgets for 1993 and 2015 (the maintenance plan period) are based on the emissions projected by EPA model Mobile 5B Cold CO together with the Rogue Valley Council of Governments' transportation model plus an additional 20%. The purpose of the additional 20% is to provide a margin of error between the amount of emissions currently projected under today's planning assumptions, and potentially greater emissions that may be projected under future assumptions and growth projections.

This 20% buffer is also added with the recognition that future CO emissions will stay well below the Medford airshed's capacity. In fact, throughout the life of the maintenance plan, CO emissions continue to decrease strongly and steadily even with the additional buffer included.

The motor vehicle emissions budget for carbon monoxide is also extended out to the year 2020—beyond the maintenance plan horizon of 2015. However, given that the potential size of a projection error increases as the projection period lengthens, a different method was used to determine the emissions budget for the post plan period. The Motor Vehicle Emission budget for 2020 was set by increasing the budget for 2015 by 1.35% per year until 2030, then applying that value to the year 2020. That approach assumes that vehicle emissions per Vehicle Mile Traveled (VMT) stop decreasing in 2015, but that the population of the area continues to grow at the rate of 1.35% per year. Before this current CO maintenance plan is replaced by an approved successor in 2010, the Medford area will need to adopt several new Regional Transportation Plans or RTPs. Each RTP must address a 20 year future period and the last transportation plan that could be adopted under this maintenance plan would be an RTP addressing the 2010 to 2030 period. The above post plan emissions budget, therefore, should accommodate the amount of emissions reasonably anticipated through 2030. Increasing the CO emissions of 26,693 lbs./day 1.35% per year until 2030 yields 32,640 lbs. per day. To provide an extra margin of safety from unnecessarily violating conformity requirements, the 2030 value is assigned to the year 2020 and all years thereafter. DEQ anticipates that this margin will be adequate to provide some limit on future CO emissions while allowing a sufficient margin of error to accommodate possible variations in future growth.

Emissions budgets for intermediate analysis years (during either the maintenance plan or during the post plan period) should be determined by interpolating between 2000 and 2015 or 2015 and 2020.

Under state transportation conformity rules, localized CO analysis (hot-spot) is required for projects (regardless of their funding source) at the top three intersections when ranked by volume or congestion. These intersections are identified here so localized CO concentrations will be more likely to be considered and addressed prior to approval of projects affecting them. According to the 2015 traffic figures, the following intersections are the top three by volume and congestion (See Appendix D3-8 for further details):

1) Big Y (Hwy. 99 at Crater Lake Highway)
2) Highway 99 at Stewart
3) McAndrews at Biddle Rd.
4) Crater Lake Avenue at McAndrews

(Note that intersections 1 and 3 are in both the top three intersections by volume and the top three intersections by congestion.)

Appendix D3-5 describes DEQ's transportation conformity rules and the transportation conformity process in Oregon.

4.52.3.2.3 Control Measures

Emissions projections show a strong overall decrease without additional controls. The projections stop taking credit for emissions from the oxygenated fuel program in the year 2000.

Through RVCOG's planning process, and the Medford Air Quality Advisory Committee's review of proposed strategies, several control measures were identified to be incorporated into the CO maintenance plan. These measures are summarized below.

Federal New Car Program

The federal new car program has been and will continue to be the most effective CO emission reduction strategy. In contrast to other pollutants, vehicle CO emission controls have not experienced much deterioration of performance with increased age and mileage. A 60% percent reduction in projected total fleet emissions is expected between 1993 and 2015 despite a steady increase in vehicle miles traveled or VMT. Anticipated improvements in CO emission control technology include heated catalysts, which will help reduce the higher emissions from cold starts.

Motor Vehicle Inspection Program

The basic vehicle inspection program will continue to operate, however emission projections assume that in the future new motor vehicles will not be subject to testing for their first four years rather than just their first two years as is now required. Gasoline powered and light duty diesel vehicles up to 20 years old that are registered within the Medford-Ashland Air Quality Maintenance Area will continue to be subject to emissions testing and inspection at the time of vehicle registration renewal. This program, operating since 1986, has been effective in reducing CO pollution by promoting proper maintenance. Standards used in the program were selected on the basis of identifying high emitting vehicles operating outside their design limits. The standards and associated enforcement tolerances take into account a limited amount of engine wear and tear, but are not so lenient that "gross emitting" vehicles would pass an emissions test.

Major New Source Review

Until the Medford Nonattainment Area is redesignated to attainment, proposed major sources and major modifications to existing sources will be are required to comply with nonattainment area New Source Review (NSR) rules, including the use of Lowest Achievable Emission Rate (LAER) control technology and offsets for CO. Carbon monoxide offsets must be provided within the area of significant air quality impact to provide a net air quality benefit.

After redesignation to attainment, the LAER requirement will be replaced by Best Available Control Technology (BACT) and requirements for either offsets (emission reduction credits or a growth allowance established in the plan) or modeling demonstrating no significant impact.

Woodstove Curtailment

Woodstove emission control efforts in the Rogue Valley have made significant strides in reducing particulate emissions through emission certification standards for new stoves, changeout programs to encourage removal of noncertified stoves and local ordinances to curtail burning during stagnant weather periods. The city of Medford will be revising its woodstove curtailment ordinance to align it with suggestions made by the Advisory Committee to improve overall effectiveness in reducing particulate emissions. All of these efforts will also contribute to a pronounced decline of CO emissions from residential wood heating from 1993 to 2015.

Additional Voluntary Control Measures

During initial development of this plan, other transportation control measures were identified that support the maintenance of CO air quality standards. However credits for emission reduction have not been requested within the maintenance plan for these projects. They are included here as indications of the region's support and willingness to address maintaining air quality standards. These projects include:

Transit Oriented Design and Transit Corridor Development Studies: The Rogue Valley Council of Governments, with financial assistance from the Department of Land Conservation and Development, is studying measures to reduce reliance on the automobile that can be used to update the RTP. Efforts focus on the best way to incorporate Transit Oriented Development (TOD) principles in key areas. Work is underway to encourage much future growth into three TOD areas by amending land use plans, transportation plans and zoning ordinances as recommended by consulting experts.

The Southeast Medford Plan: Adopted as a revision to the Comprehensive Plan for the City of Medford, this plan covers approximately 1,000 acres within the Urban Growth Boundary, east of North Phoenix Road, north of Coal Mine Road and south of Hillcrest Road. The Plan that provides for a neotraditional development pattern has as its primary purposes to:

- achieve minimum housing densities by limiting residential areas to specific zoning districts;
- establish a special central core - the Village Center - with commercial, institutional and residential uses;
- preserve natural waterways while providing routes for pedestrian and bicycle travel;
- require approval of most development through the City's Planned Unit Development ordinance;
- establish special design and development standards for the use of greenways, alleys and street trees.

Compared to "contemporary" development plans that use single use zoning and a circulation system that feeds all traffic onto collector and arterial streets, this development pattern will reduce off-peak traffic within the area and produce trips of shorter length. Additionally, it could significantly increase pedestrian and bicycle trips within the development area.

4.52.3.2.4 Rollforward Analysis

To project future 8-hour average CO concentrations at the two permanent DEQ monitoring sites and other screened, potential hot spots in central Medford, a rollforward analysis was conducted. This is a simple technique based on the fact that CO is a relatively stable gas, and motor vehicles contribute most of the CO measured at traffic-oriented monitoring sites. The rollforward analysis consists of applying a ratio of future CO emissions (based on expected growth) to a baseline level of emissions and corresponding annual second highest 8-hour CO concentrations. Baseline CO emissions for a given intersection were calculated for the attainment year 1993 and then for 2015, based on expected traffic growth from the Emme/2 transportation model and EPA's Mobile emission factor model. The CO emissions in gm/mile were calculated for each leg of the intersection, based on estimated/calculated speeds (peak period and off-peak) and then summed for total intersection emissions. Carbon Monoxide emission factors were calculated using EPA's Mobile 5b Cold CO computer model for on-road emissions. This computer model is an interim instrument that incorporates new data on the in-use-deterioration rates of emission controls used on newer vehicles and a more accurate understanding of the future effectiveness of oxygenated fuels. The model approximates results expected to be produced by EPA's long delayed Mobile 6 emission factor model.

The non-monitored locations were selected on the basis of the same screening technique employed in the Attainment Demonstration (Section 4.52.2.5.2), i.e., using volume and congestion factors from RVCOG's Emme/2 transportation model to rank potential problem intersections in the year 2015. The following intersections were identified, based either on volume alone, or a combination of volume and expected congestion (V*V/C, where V is the traffic volume and C is the capacity of one leg of the intersection).

Table 4.52.3.3 Selected Intersections and Ranking Factors

Location	Ranking Factor(s)
Riverside/Crater Lake Hwy (Big Y)	Volume and V*V/C
Biddle and McAndrews	Volume and V*V/C
Hwy 99 and Stewart	Volume
Crater Lake Ave. and McAndrews	V*V/C

The results of the rollforward analysis, as shown in Table 4.52.3.4, are based on a discontinuation of the wintertime oxygenated fuel program. This analysis indicated continued attainment at all four sites through the year 2015.

Table 4.52.3.4 2015 Second Highest Maximum 8-hour CO Concentrations at DEQ Monitoring Sites and Screened Intersections

Location	2015 8-Hr CO Concentration, ppm
Brophy Monitor	4.4
Rogue Valley Mall Monitor	5.2
Big Y	5.0
Biddle and McAndrews	5.6
Hwy 99 and Stewart	5.4
Crater Lake Ave. and McAndrews	5.0

The details of the rollforward methodology, including Mobile 5b Cold CO emission factor inputs and outputs and example calculations are contained in Appendix D3-8.

4.52.3.3 Contingency Plan

The Maintenance Plan must contain contingency measures that would be implemented in the event of: 1) a violation of the CO standard after the area has been redesignated to maintenance, or 2) other appropriate triggering protocol contained in the plan. Medford's contingency plan is outlined below.

The Clean Air Act Section 175A(d) requires that all control measures contained in the State Implementation Plan (SIP) prior to redesignation be retained as contingency measures in the Maintenance Plan. Therefore, the reinstatement of wintertime oxygenated fuel, Lowest Achievable Emission Rate (LAER) equipment and major industrial source offsets are required contingency measures in the CO Maintenance Plan.

Phase 1: Risk of Violation

If monitored (8-hour) CO levels at any site within the Medford Urban Growth Boundary (UGB) on the National Air Monitoring System or the State and Local Air Monitoring System registers a second high concentration equaling or exceeding 90 percent (equal to or greater than 8.1 ppm) of the National Ambient Air Quality Standard (NAAQS) level during a calendar year, then the DEQ will convene a planning group to recommend which of the following strategies should be considered for implementation. Within six months of the validated 90 percent second high CO concentration, the planning group will recommend a schedule of strategies to either prevent or correct any violation of the 8-Hour NAAQS for CO. This will allow a choice to be made to implement these measures before or after an actual violation has occurred.

Contingency strategies to be considered will include, but are not limited to:

(1) Improvements to parking and traffic circulation;
(2) Aggressive signal retiming program;
(3) Increased funding for transit;
(4) Enhanced vehicle inspection/maintenance program; and
(5) Accelerated implementation of bicycle and pedestrian networks.

In the event a second 8-hour CO concentration equaling or exceeding 8.1 ppm occurs in a calendar year, the planning group may also choose to conduct further studies to determine if additional measures are needed, or to determine if the problem was caused by an exceptional event requiring no further action. High values associated with the annual Classic Car Rally are not be considered as triggering the steps outlined above. Management of high CO concentrations associated with the Classic Car Rally will be controlled through an interagency agreement between the City of Medford and the Department of Environmental Quality.

Phase 2: Actual Violation

If a violation of the CO NAAQS occurs, and is validated by DEQ, the Department will automatically implement the following contingency measures (in addition to those measures specified under Phase 1):

(1) New Source Review requirements for proposed major sources and major modifications in the Maintenance Plan area (and the area of significant air quality impact) will be modified. The requirement to install Best Available Control Technology (BACT) will be replaced with a requirement to install Lowest Achievable Emission Rate (LAER) technology. These requirements will take effect upon validation of the violation. BACT may be reinstated if provided for in a new maintenance plan adopted and approved by EPA.

(2) The requirement for the wintertime use of oxygenated fuel in Jackson County will be reinstated in the event a carbon monoxide violation occurs.

4.52.4 ADMINISTRATIVE REQUIREMENTS

The criteria that must be satisfied for a nonattainment area to be redesignated to attainment include several administrative requirements related to compliance with various Clean Air Act provisions. Each of these elements is described below.

4.52.4.1 SIP Requirements/Nonattainment Area Requirements

Medford has met all State Implementation Plan (SIP) requirements specified in Section 110 and Part D of the Clean Air Act.

In summary, Section 110 says that a state shall submit a plan that becomes part of the SIP that provides for the implementation, maintenance, and enforcement of an air quality standard. Part D outlines specific plan requirements for nonattainment areas.

4.52.4.1.1 Summary of Fully Approved SIP

The Medford Carbon Monoxide Nonattainment plan, as adopted in 1982 and amended in 1985, used several control strategies. Because motor vehicles represent the vast majority of the total CO emissions generated in the Medford area (74 percent in 1979 and 56 percent in 1987), the control strategies focused primarily on transportation control measures. EPA approved the nonattainment plan in February 1987. The strategies in the approved nonattainment plan include:

a. A DEQ-operated vehicle inspection/maintenance program for motor vehicles registered within the control area. This mandatory program began in 1986 and requires affected vehicles to pass a biennial emission inspection before they may be registered. In the program's first seven years, it achieved more than a 22 percent reduction in CO emissions.

b. Modifications to the Medford Parking and Traffic Circulation Plan which proposed a net loss of parking in the central business district and a shift from on-street to off-street parking.

c. Traffic flow improvements on critical streets in the transportation network including the installation of computerized traffic signals.

d. The establishment of a linked network of bicycle lanes and other programs to encourage bicycling as a trip option.

e. Federal Motor Vehicle Emission Control Program

4.52.4.1.2 1990 Clean Air Act Requirements and Status

The 1990 Clean Air Act Amendments place additional requirements on moderate CO nonattainment areas. Following are the DEQ submittal dates and EPA approval dates of submissions required by section 110 and Part D of the 1990 Clean Air Act Amendments:

a. *1990 Emissions inventory, to be revised every three years thereafter until attainment.* On November 15, 1992, DEQ submitted to EPA a comprehensive 1990 carbon monoxide emission inventory for the Medford nonattainment area. EPA provided comments on the submittal in July, 1993. The 1990 base year emission inventory was revised in response to EPA comments, and was resubmitted with the 1998 redesignation request (see Appendix D3-4-1). The 1990 and 1993 emission inventories (Appendix D3-4-2) in this Redesignation Request/Maintenance Plan submittal are meant to be used to meet the periodic inventory requirement. The requirements for 1996 and 1999 periodic emission inventories are addressed by summary emission projections showing interpolations between emission analysis years, submitted with this revised Maintenance Plan/Redesignation Request. The projected emission inventory for 2015 is included in Appendix D3-4-3.

b. *Oxygenated gasoline.* On November 16, 1992, the DEQ submitted to EPA an oxygenated gasoline program for the Medford area. The regulations were effective November 1, 1992. The program mandated the use of gasoline with no less than 2.7 percent oxygen content in the winter months.

   Because Medford was classified with a design value for CO above 9.5 ppm, the area was required to establish a wintertime oxygenated fuel program. The DEQ adopted rules (OAR 340-258-0100 through 346-258-0300) to meet this requirement. These regulations require that all gasoline suppliers in the Jackson County area register with the DEQ. These regulations further require that the average blend of any gasoline sold by the supplier should be at least 2.7 percent oxygen by weight and in no case be less than 2.0 percent oxygen content by weight (actual) from the months of November 1 through February 29. However, regional emission projections indicate oxygenated fuels do not need to be continued and the oxygenated fuel requirements are removed from Jackson County as one provision of this maintenance plan.

c. *Vehicle Inspection and Maintenance Program.* DEQ submitted a technical change to the vehicle inspection and maintenance program on November 15, 1993 and committed to several administrative revisions at that time. The technical change was the replacement of all vehicle testing equipment with computerized equipment. EPA approved this revision on January 29, 1994. On June 13, 1994,

the DEQ submitted several administrative revisions to the program. These revisions to Volume 2, Section 5.4 of the SIP included:

1. Specification of how vehicles registered in an I/M area but temporarily operated outside an I/M area were to be tested;
2. Requirements and procedures for inspector training;
3. Testing equipment specifications, procedures, quality assurance, and auditing requirements;
4. Requirements for the testing of fleet vehicles registered outside an I/M area but operating within an I/M area; and
5. A committal to monitor compliance with the I/M program through parking lot registration surveys.

EPA approved these changes on September 9, 1994.

d. *Transportation Conformity Requirements.* Section 176(c) of the Clean Air Act required states to revise the SIPs to establish criteria and procedures for demonstrating transportation plan conformity to a SIP. On April 14, 1995, DEQ submitted to EPA a revision to the Oregon SIP establishing transportation conformity requirements for Oregon (OAR 340-020-0710 through 340-020-1080). General Conformity requirements (OAR 340-020-1500 through 340-020-1600) were submitted on September 27, 1995. EPA approved the transportation conformity rules as a SIP revision on May 16, 1996.

e. *New Source Review Rules (NSR) for "major sources"* On November 16, 1992, DEQ submitted revisions to the New Source Review permit program. These revisions included a requirement that offsets come from contemporaneous, actual emission reductions under OAR 340-028-1970(5), and other changes.

f. *Contingency measures.* These measures were required to be established in the event that the Medford area was not able to demonstrate reasonable further progress towards achieving the standard. Contingency measures included a review by both the City of Medford and Jackson County to determine if CO strategy elements were delayed or if projects with an adverse effect had been included. Delayed projects with identified benefits were to be moved forward expeditiously. Transportation projects with adverse impacts were to be delayed until other measures were adopted to make up the shortfall.

The Environmental Quality Commission also adopted as a CO contingency measure a requirement for oxygenated fuel to be formulated with a 2.9% oxygen content if the area should further violate the CO standard. EPA approved this measure on June 28, 1994.

g. Streamlining revisions to the Transportation and General Conformity measures were adopted by the EQC in August 1998 and approved by EPA March 22, 2000.

4.52.4.2 Monitoring Network and Commitments

The DEQ is responsible for the operation of the permanent ambient CO monitors in the Medford area. The DEQ oversees the quality control and quality assurance program for the CO data.

DEQ will continue to comply with the air monitoring requirements of Title III, Section 319, of the Clean Air Act. The monitoring sites will also continue to be operated in compliance with EPA monitoring guidelines set forth in 40 CFR Part 58, "Ambient Air Quality Surveillance," and Appendices A through G of Part 58. In addition, DEQ will continue to comply with the "Ambient Air Quality Monitoring Program" specified in Volume 2, Section 6 of the SIP. Further, DEQ will continue to operate and maintain the network of State and Local Air Monitoring Stations (SLAMS) and National Air Monitoring Stations (NAMS) in accordance with the terms of the State/EPA Agreement (SEA)

The DEQ also periodically conducts saturation studies to verify that existing monitors are recording the highest CO concentrations in the area. DEQ commits to conducting a reevaluation survey in the event of major changes in traffic patterns, as soon as practicable after identifying any such changes. DEQ also commits to conducting a five-year periodic survey, pending EPA review. Based on CO monitoring data, relevant traffic data and other considerations such as special project funding availability, DEQ and EPA may agree that the periodic survey is unnecessary, or should be delayed.

4.52.4.3 Verification of Continued Attainment

The DEQ will analyze CO air quality monitoring data annually to verify continued attainment of the CO standard, as required by 40 CFR Part 50 and EPA's Redesignation guidance. This data, along with the previous year data, will provide the necessary information for determining whether the region continues to attain the NAAQS.

The DEQ will also prepare an updated emission inventory summary for calendar year 2001. This update will be submitted to EPA Region 10 within 18 months following the end of the periodic emission inventory calendar year. In preparing the update, DEQ will review the emission factors, growth factors, rule effectiveness and rule penetration factors, and other significant assumptions used to prepare the emission forecast. DEQ will confirm these factors and/or adjust them where more accurate information is available. Any new emission sources will be included in the update.

The next periodic update of the emission inventory would be met with the submission of a revised maintenance plan, expected to occur 8 years after the redesignation plan is approved. That inventory update could be performed for any of the calendar years after 2001.

DEQ will compare the updated emission summary to the emission forecast and the attainment inventory in Tables 4.52.3.1, and evaluate any changes that have occurred. If there have been

significant changes, DEQ will, in consultation with EPA Region 10, determine if a more extensive periodic emission inventory is necessary. If a more extensive inventory is necessary, it will be submitted to EPA within 23 months after the end of the reporting year.

4.52.4.4 Maintenance Plan Commitments

As part of the Medford CO Maintenance Plan, DEQ commits to do the following:

DEQ will submit revisions to the New Source Review regulations, as described in Appendix D3-7, before EPA approval of the maintenance plan.

DEQ will prepare a periodic emission inventory update for 2001. The emission inventory updates will be submitted to EPA within 18 months following the end of the periodic emission inventory calendar year as specified in Section 4.52.4.3.

The DEQ commits to conducting a reevaluation survey in the event of major changes in traffic patterns, as soon as practicable after identifying any such changes. DEQ will also commit to a five-year periodic survey, pending EPA review.

DIVISION 200

GENERAL AIR POLLUTION PROCEDURES AND DEFINITIONS

340-200-0040
State of Oregon Clean Air Act Implementation Plan

(1) This implementation plan, consisting of Volumes 2 and 3 of the State of Oregon Air Quality Control Program, contains control strategies, rules and standards prepared by the Department of Environmental Quality and is adopted as the state implementation plan (SIP) of the State of Oregon pursuant to the federal Clean Air Act, Public Law 88-206 as last amended by Public Law 101-549.

(2) Except as provided in section (3) of this rule, revisions to the SIP shall be made pursuant to the Commission's rulemaking procedures in Division 11 of this Chapter and any other requirements contained in the SIP and shall be submitted to the United States Environmental Protection Agency for approval.

(3) Notwithstanding any other requirement contained in the SIP, the Department is authorized:

(a) To submit to the Environmental Protection Agency any permit condition implementing a rule that is part of the federally-approved SIP as a source-specific SIP revision after the Department has complied with the public hearings provisions of **40 CFR 51.102** (July 1, 1992); and

(b) To approve the standards submitted by a regional authority if the regional authority adopts verbatim any standard that the Commission has adopted, and submit the standards to EPA for approval as a SIP revision.

[**NOTE**: Revisions to the State of Oregon Clean Air Act Implementation Plan become federally enforceable upon approval by the United States Environmental Protection Agency. If any provision of the federally approved Implementation Plan conflicts with any provision adopted by the Commission, the Department shall enforce the more stringent provision.]

Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.035
Hist.: DEQ 35, f. 2-3-72, ef. 2-15-72; DEQ 54, f. 6-21-73, ef. 7-1-73; DEQ 19-1979, f. & ef. 6-25-79; DEQ 21-1979, f. & ef. 7-2-79; DEQ 22-1980, f. & ef. 9-26-80; DEQ 11-1981, f. & ef. 3-26-81; DEQ 14-1982, f. & ef. 7-21-82; DEQ 21-1982, f. & ef. 10-27-82; DEQ 1-1983, f. & ef. 1-21-83; DEQ 6-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84; DEQ 25-1984, f. & ef. 11-27-84; DEQ 3-1985, f. & ef. 2-1-85; DEQ 12-1985, f. & ef. 9-30-85; DEQ 5-1986, f. & ef. 2-21-86; DEQ 10-1986, f. & ef. 5-9-86; DEQ 20-1986, f. & ef. 11-7-86; DEQ 21-1986, f. & ef. 11-7-86; DEQ 4-1987, f. & ef. 3-2-87; DEQ 5-1987, f. & ef. 3-2-87; DEQ 8-1987, f. & ef. 4-23-87; DEQ 21-1987, f. & ef. 12-16-87; DEQ 31-1988, f. 12-20-88, cert. ef. 12-23-88; DEQ 2-1991, f. & cert. ef. 2-14-91; DEQ 19-1991, f. & cert. ef. 11-13-91; DEQ 20-1991, f. & cert. ef. 11-13-91; DEQ 21-1991, f. & cert. ef. 11-13-91; DEQ 22-1991, f. & cert. ef. 11-13-91; DEQ 23-1991, f. & cert. ef. 11-13-91; DEQ 24-1991, f. & cert. ef. 11-13-91; DEQ 25-1991, f. & cert. ef. 11-13-91; DEQ 1-1992, f. & cert. ef. 2-4-92; DEQ 3-1992, f. & cert. ef. 2-4-92; DEQ 7-1992, f. & cert. ef. 3-30-92; DEQ 19-1992, f. & cert. ef. 8-11-92; DEQ 20-1992, f. & cert. ef. 8-11-92; DEQ 25-1992, f. 10-30-92, cert. ef. 11-1-92; DEQ 26-1992, f. & cert. ef. 11-2-92; DEQ 27-1992, f. &cert. ef. 11-12-92; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 8-1993, f. & cert. ef. 5-11-93; DEQ 12-1993, f. & cert. ef. 9-24-93; DEQ 15-1993, f. & cert. ef. 11-4-93; DEQ 16-1993, f. & cert. ef. 11-4-93; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 19-1993, f. & cert. ef. 11-4-93; DEQ 1-1994, f. & cert. ef. 1-3-94; DEQ 5-1994, f. & cert. ef. 3-21-94; DEQ 14-1994, f. & cert. ef. 5-31-94; DEQ 15-1994, f. 6-8-94, cert. ef. 7-1-94; DEQ 25-1994, f. & cert. ef. 11-2-94; DEQ 9-1995, f. & cert. ef. 5-1-95; DEQ 10-1995, f. & cert. ef. 5-1-95; DEQ 14-1995, f. & cert. ef. 5-25-95; DEQ 17-1995, f. & cert. ef. 7-12-95;

DEQ 19-1995, f. & cert. ef. 9-1-95; DEQ 20-1995 (Temp), f. & cert. ef. 9-14-95; DEQ 8-1996(Temp), f. & cert. ef. 6-3-96; DEQ 15-1996, f. & cert. ef. 8-14-96; DEQ 19-1996, f. & cert. ef. 9-24-96; DEQ 22-1996, f. & cert. ef. 10-22-96; DEQ 23-1996, f. & cert. ef. 11-4-96; DEQ 24-1996, f. & cert. ef. 11-26-96; DEQ 10-1998, f. & cert. ef. 6-22-98; DEQ 15-1998, f. & cert. ef. 9-23-98; DEQ 16-1998, f. & cert. ef. 9-23-98; DEQ 17-1998, f. & cert. ef. 9-23-98; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 21-1998, f. & cert. ef. 10-12-98; DEQ 1-1999, f. & cert. ef. 1-25-99; DEQ 5-1999, f. & cert. ef. 3-25-99; DEQ 6-1999, f. & cert. ef. 5-21-99; DEQ 10-1999, f. & cert. ef. 7-1-99; DEQ14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-020-0047; DEQ 15-1999, f. & cert. ef. 10-22-99; DEQ 2-2000, f. 2-17-00, cert. ef. 6-1-01; DEQ 6-2000, f. & cert. ef. 5-22-00; DEQ 8-2000, f. & cert. ef. 6-6-00; DEQ 13-2000, f. & cert. ef. 7-28-00, DEQ 16-2000, f. & cert. ef. 10-25-00; DEQ 17-2000, f. & cert. ef. 10-25-00; DEQ 20-2000, f. & cert. ef. 12-15-00; DEQ 21-2000, f & cert. ef. 12-15-00.

DIVISION 204

340-204-0090
Oxygenated Gasoline Control Areas

(1) The following are oxygenated gasoline control areas:

~~(a)~~ Clackamas, Multnomah, Washington and Yamhill Counties~~;~~

~~(b) Jackson County~~.

(2) The oxygenated fuel requirement also applies to any area formerly listed as nonattainment for carbon monoxide in 340-204-0030 and classified by EPA as moderate or worse, until EPA redesignates the area to attainment and repeals the oxygenated fuel requirement.

[**NOTE**: The department has submitted a request to the Environmental Protection Agency asking that the oxygenated fuel requirement be repealed in the ~~Grants Pass Control Area and~~ Klamath Falls Control Area and Jackson County. These areas remain Oxygenated Gasoline Control Areas and oxygenated fuel requirements continue to apply until ~~such time as~~ EPA approves the request for repeal. Contact the Air Quality Division's State Implementation Plan Coordinator for current information].

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468 & ORS 468A

Stats. Implemented: ORS 468A.420

Hist.: DEQ 25-1992, f. 10-30-92, cert. ef. 11-1-92; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0470; DEQ 15-1999, f. & cert. ef. 10-22-99; DEQ 16-2000, f. & cert. ef., 10-25-00.

Secretary of State

NOTICE OF PROPOSED RULEMAKING HEARING

A Statement of Need and Fiscal Impact accompanies this form.

DEQ - AQ Agency and Division	Chapter 340 Administrative Rules Chapter Number
Susan M. Greco Rules Coordinator	(503) 229-5213 Telephone
811 S.W. 6th Avenue, Portland, OR 97204 Address	

January 16, 2001	7:00 p.m.	Studio 108 – Smullin Health Center 2825 Barnett Rd. Medford, OR 97504	Keith Tong
Hearing Date	Time	Location	Hearings Officer

Are auxiliary aids for persons with disabilities available upon advance request?
☒ Yes ☐ No

RULEMAKING ACTION

AMEND:

OAR 340-200-0040 and 340-204-0090

Stat. Auth.: ORS 468A.025 and 468.020
Stats. Implemented: ORS 468A.035 and 468A.420

RULE SUMMARY

The Department of Environmental Quality (DEQ) is proposing that the Environmental Quality Commission (EQC) adopt rule amendments to revise the Medford Carbon Monoxide Maintenance Plan. These amendments, if adopted, will be submitted to the US Environmental Protection Agency (EPA) as revisions to the Oregon State Implementation Plan which is a requirement of the Clean Air Act.

The primary purpose of the revisions is to remove the winter time requirement to use oxygenated fuel in Jackson County. The changes also update the Emissions Inventory and Emissions Projections on which the maintenance plan is based (in addition to miscellaneous other modifications). All of the proposed changes can take effect only after they are approved by EPA, which is not expected to happen before the summer of 2002.

January 18, 2001, 5:00 p.m. Last Day for Public Comment	Susan M. Greco 12/11/00 Authorized Signer and Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Revision of the Medford Carbon Monoxide Maintenance Plan/Redesignation Request

Fiscal and Economic Impact Statement

Introduction

This rulemaking proposes to modify the existing Medford Carbon Monoxide Maintenance Plan & Redesignation Request to lift the oxygenated fuel requirement in Jackson County. This action will have financial impacts that may range from no effects to minor savings for both the public and those involved in the sale and distribution of gasoline. Because ethanol is the oxygenating agent used in the Medford area, eliminating the oxygenated fuel requirement may have a negative impact on ethanol producers.

This action constitutes a revision of the State Implementation Plan (SIP) under the Clean Air Act. That means this rulemaking is subject to federal review and the rule revisions cannot take effect until EPA's approval is formally granted. The Department does not anticipate EPA approval to occur before the middle of 2002, so any fiscal impact resulting from this action will be delayed until that time or later.

General Public

Traditionally, the wintertime use of oxygenated fuel was expected to increase the cost of gasoline approximately 1 or 2 cents per gallon. Over the past few years, however, the small financial penalty of providing oxygenated fuel seems to have become negligible, or even a cost savings. This is due to several factors such as the octane-boosting benefit of oxygenates, the tax advantages given to ethanol, and the current high cost of petroleum. Some major oil companies have reportedly provided oxygenated fuel during all seasons for several years. Therefore, it is expected that many suppliers will continue to provide oxygenated fuel regardless of the requirement's removal. To the extent this occurs there will be essentially no financial consequences.

However, if fuel suppliers revert to providing conventional gasoline, the general public may experience some financial benefit. The U.S. Environmental Protection Agency reports that oxygenated gasoline decreases fuel economy by 3%. Oxygenated fuel is also reported to cause performance problems in some older vehicles. These factors would produce a slight economic benefit for the Jackson County public that returns to a non-oxygenated gasoline blend.

Small Business

There are approximately 86 gas stations in Jackson County including both large and small businesses. Lifting the oxygenated fuel requirement will relieve those stations of the need to get annual permits for oxygenated fuel retailers. However, since those permits have no fees, the only financial effects would be those produced indirectly through a reduction in the amount of paperwork needed to meet the oxygenated fuel requirements from November through February.

Fuel distributors serving the area also vary widely in size. Fifty-nine separate distributors are registered to ship oxygenated fuel to the area, but the majority of gasoline used in the area is thought to be provided by nine distributors located in southwest Oregon. The Department estimates that 15 distributors will no longer need to acquire annual permits to distribute oxy-fuel. Permits to distribute oxygenated fuel cost $250 each. Therefore, after EPA approves this rulemaking those distributors will be spared that annual cost. At that time this action will also allow all distributors serving the area to be relieved of some of the administrative requirements formerly needed to comply with the oxy-fuel rules. It is not possible, however, to determine the exact amount of time saved or the price of that time since both factors will vary from business to business.

Large Business

Gasoline retailers, distributors, and terminal operators are required to obtain a DEQ permit to sell oxygenated fuel. Some of the terminal operators and fuel distributors supplying oxygenated gasoline to Jackson County will continue supplying the Portland area (where oxygenated fuel requirements will remain in effect) and so will need to continue obtaining permits and continue most recordkeeping activities. However, the Department estimates that 8 of the 26 terminals currently carrying permits would no longer need to meet this requirement which would save each of those terminal operators an annual permit fee of $2,500. Distributors and gas station operators that constitute large businesses would be subject to the same effects of removing the oxygenated fuel requirement as is described above for small business distributors and small business gas station operators.

Ethanol suppliers may suffer a decline in sales of their product, which was the oxygenate used in 21 million gallons of oxy-fuel sold in Jackson County during the 1999 – 2000 season. As a point of

comparison, that represents 10.4% of the amount of oxy-fuel sold in the Portland area during the same period. The amount of sales that might be lost as a result of this action, however, is entirely speculative due to ethanol's current price advantage.

Again, financial effects would occur only after the proposed rule modification is formally approved by EPA.

Local Governments

Local governments are not involved with the administration of the oxygenated fuel regulations. Local governments with fleet vehicles will experience the same financial effects (or lack of effects) as other motor vehicle users.

State Agencies

As indicated above, the Department estimates 15 distributors will no longer need permits at a cost of $250 each, and 8 terminal operators will no longer need oxygenated fuel permits at a cost of $2,500 each. Therefore, DEQ estimates lost oxygenated fuel permit fees will decrease the Department's total revenue $23,750 per year. However, as is true for the other fiscal impacts of this action, any financial effects will take place only after the change meets EPA approval (which is expected to be delayed until the middle of 2002 or later).

No other state agencies are expected to be financially affected by this rulemaking.

Assumptions

This fiscal impact assessment assumes the fuel industry's current general practices for the sale and distribution of oxygenated fuel will not change significantly in the near future.

Housing Cost Impact Statement

The Department has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Revision of the Medford Carbon Monoxide Maintenance Plan/Redesignation Request
(to remove the Oxygenated Fuel Requirement)

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

In 1998 the Environmental Quality Commission requested that EPA redesignate the Medford area to attainment for the national carbon monoxide (CO) air quality standard. To meet one of the requirements for redesignation under the Clean Air Act the commission also adopted the Medford Carbon Monoxide Maintenance Plan which describes how the area will maintain compliance with the national air quality standards through 2015. One provision of the maintenance plan was that oxygenated fuel would be required in Jackson County during the winter. Since then, updated modeling shows that requirement will not be needed to meet the CO standard. Therefore, this rulemaking would revise the existing maintenance plan to remove the oxygenated fuel requirement, and would replace the 1993 Emission Inventory and Emissions Projection for 2015 with updated versions. This action would also adjust the motor vehicle emissions budget (used to meet "transportation conformity" requirements) to better fit the updated projections.

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

Yes X **No** ___

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

Transportation Conformity review processes and the New Source Review processes of issuing Air Quality Permits.

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

Yes X **No**___ **(if no, explain):**

c. If no, apply the following criteria to the proposed rules.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

N/A

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

N/A

Division Representative

Intergovernmental Coord.

12/6/00
Date

Questions to be Answered to Reveal
Potential Justification for Differing from Federal Requirements.

Revision of the Medford Carbon Monoxide Maintenance Plan/Redesignation Request

1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?

The proposed rulemaking removes the oxygenated fuel requirement in Jackson County and satisfies the minimum action needed to meet federal requirements. Those requirements are in section 211 (m) of the Clean Air Act which mandates that oxygenated fuel be used in areas that do not attain the Carbon Monoxide air quality standards. However, subsection (6) provides that oxy-fuel must be retained only as long as it is needed to continue meeting the air quality standard (through the ten year maintenance period). Updated computer modeling of Medford's future air quality now shows that good air quality can easily be achieved without oxy fuel. This rulemaking action therefore, proposes to amend the existing Medford CO Maintenance Plan and Redesignation Request to remove the wintertime requirement for oxygenated fuel.

2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?

Once EPA approves the redesignation of a carbon monoxide area to attainment, the federal requirements are performance based. (Until that time the use of oxygenated fuel is mandated.) A carbon monoxide maintenance plan must demonstrate that future carbon monoxide concentrations will stay within the national air quality standard, but (in general) the Clean Air Act does not specify which control measures must be used to achieve that end.

3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?

No, the federal requirements are general in nature and allow states flexibility to design maintenance plans to meet local conditions. DEQ used this flexibility in consultation with the Medford-Ashland Air Quality Advisory Committee to address the unpopularity of oxy-fuel in Jackson Co. by revising the Medford CO Maintenance Plan to lift the oxygenated fuel requirement.

4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

The proposal will allow fuel suppliers the flexibility of providing Jackson County with oxygenated or non-oxygenated fuel, which may allow businesses and the public to achieve the air quality standards in a more cost effective way. However, this proposal does not involve any clarifications, resolution of conflicting requirements or increased certainty.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

There is no requirement for an area to remove the oxygenated fuel requirement once it is no longer needed.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

Yes. The proposal incorporates the results of updated emission modeling by providing a revised Emission Inventory for 1993 and a modified Emissions Projection for the year 2015. Because the new projection predicts future emissions to be far below the 1993 baseline year emissions, the revised inventory will accomodate a greater amount of future growth. Also, the revised motor Vehicle Emissions budget allows a 20% safety margin for potential variation between the current emissions model (Mobile 5B Cold CO) and the anticipated future model (Mobile 6). The budget was developed to accommodate growth through the futuremost planning year of the last transportation plan that could be subject to these emission budgets before they must be updated.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

The oxygenated fuel requirement has been removed from Grants Pass, and is in the process of being removed from Klamath Falls. Therefore, removing the oxygenated fuel requirement from Jackson County will align the requirements in Jackson County with those that apply in the rest of southwest Oregon.

8. Would others face increased costs if a more stringent rule is not enacted?

The proposed rulemaking is not more stringent than federal requirements.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

No.

10. Is demonstrated technology available to comply with the proposed requirement?

This question is not applicable. The proposed rulemaking removes requirements rather than establish new ones.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

The revised Medford Carbon Monoxide Maintenance Plan demonstrates that air quality will continue to improve after the oxygenated fuel program is lifted. Therefore, this rulemaking is consistent with future pollution prevention.

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

Date: December 13, 2000

To: Interested and Affected Public

Subject: Rulemaking Proposal and Rulemaking Statements - Revision of the Medford Carbon Monoxide Maintenance Plan to Remove Requirements for Oxygenated Fuel

This memorandum contains information on a proposal by the Department of Environmental Quality (Department) to adopt rule amendments to Chapter 340, Division 200 and 204 of Oregon Administrative Rules (OARs). The amendments pertain to the revision of the Medford Carbon Monoxide Maintenance Plan for the purpose of removing the wintertime oxygenated fuel (oxy-fuel) requirement and updating the emissions inventory and emissions projections. This amendment, if adopted, will be submitted to the US Environmental Protection Agency (EPA) as a revision to the State Implementation Plan (SIP), which is a requirement of the Clean Air Act. Pursuant to ORS 183.335, this memorandum also provides information about the Environmental Quality Commission's intended action to adopt a rule.

The current Medford Carbon Monoxide Maintenance Plan was submitted to EPA Region 10 on November 19, 1998 with Oregon's request that EPA redesignate the Medford Carbon Monoxide Nonattainment Area to attainment of the air quality standard. At that time, the Department agreed to revisit the need for oxy-fuel when new information about its effect with new vehicle technology was incorporated into the EPA emissions projection model. At the Department's request, EPA has not yet acted upon that submittal in anticipation of this replacement.

This proposal would modify that existing maintenance plan in several ways. The most evident change is the removal of the requirement to use oxygenated fuel from November through February in Jackson County. A second modification of the plan is to replace the inventory of 1993 baseline emissions and the projection of emissions in 2015 with updated versions of the same. These updated inventories incorporate the results of an updated computer model of vehicle emissions (Mobile 5B Cold CO) and an improved "best practices" model of the Medford transportation system. The final proposed revision of the maintenance plan adjusts the amount of carbon monoxide (CO) emissions allowed by the Motor Vehicle Emissions Budget in order to better match the greatly reduced vehicle emissions predicted by the latest modeling.

The Department has the statutory authority to address this issue under ORS 468A.025 and 468.020. These rules implement ORS 468A.035 and 468A.420.

Key Words & Acronyms:

Attainment The official classification under the Clean Air Act that indicates a

	geographic area meets the air quality standard set for a given pollutant.
Conformity	A regulatory process through which the emissions produced by a transportation system must be reconciled with the amount of pollution allowed from on-road motor vehicles in air quality plans.
Emissions Budget	The amount of pollution specified in an air quality plan that is allowed to be produced by motor vehicles under the conformity rules.
Ethanol	An alcohol produced primarily from agricultural products that is one of the two most common additives used to produce oxygenated fuel or oxy-fuel.
MTBE	Methyl tertiary butyl ether or MTBE is a petrochemical that is the second of the two most common additives used to produce oxy-fuel. MTBE is detectable by humans at extremely low concentrations and recently became well publicized for its role in contaminating ground water.
Oxy-fuel	Gasoline with a minimum oxygen content of 2.7% used to reduce wintertime carbon monoxide emissions.
SIP	State Implementation Plan—air quality regulations and air quality plans that are approved by EPA and that specify how a state will achieve the National Ambient Air Quality Standards. Required by the Clean Air Act.

What's in this Package?

Attachments to this memorandum provide details on the proposal as follows:

Attachment A	The official statement describing the fiscal and economic impact of the proposed rule.
Attachment B	A statement providing assurance that the proposed rules are consistent with statewide land use goals and compatible with local land use plans.
Attachment C	Questions Answered to Reveal Potential Justification for Differing from Federal Requirements.
Attachment D	The text of the proposed rule amendments.
Attachment E	The text of the Revised Medford Carbon Monoxide Maintenance Plan as proposed. (To reduce mailing size, this is being sent only to the Medford-Ashland Air Quality Advisory Committee. Others may obtain a copy by calling Dave Nordberg at (503) 229-5519 or (800) 452-4011.)

This proposal also includes modifications to several of the Appendices to the Maintenance Plan, such as:

D3-1 Technical Analysis Protocol

D3-4-2 1993 Baseline Year Inventory

D3-4-3 Regional Emission Forecast

D3-6 Historical and Projected Population, Households and Employment

D3-8 Rollforward Analysis

These and all other appendices that form the entire Medford CO Maintenance Plan may be reviewed throughout the public comment period during normal business hours at either of the following locations:

Oregon Department of Environmental Quality
201 W. Main Street, Suite 2-D
Medford, OR 97501

or

Jackson County Library
Medford Branch/Headquarters
413 W Main
Medford, OR 97501

Hearing Process Details

The Department is conducting a public hearing at which comments will be accepted either orally or in writing. The hearing will be held as follows:

Date: January 16, 2000
Time: 7:00 p.m.
Place: Smullin Health Education Center
Studio 108
2825 Barnett Road
Medford, OR 97504

Deadline for submittal of Written Comments: Thursday, January 18, 2001 at 5:00 p.m.

Keith Tong of DEQ's Medford office will be the Presiding Officer at the hearing.

Written comments may be presented at the hearing or to the Department prior to the deadline

shown above. Comments not delivered at the public hearing should be sent to: Department of Environmental Quality – 11th Floor, Attn: Dave Nordberg, 811 S.W. 6th Avenue, Portland, Oregon 97204.

In accordance with ORS 183.335(13), no comments from any party can be accepted after the deadline for submission of comments has passed. Therefore, if you wish your comments to be considered by the Department in the development of these rules, your comments must be received prior to the close of the comment period. The Department recommends that comments be submitted as early as possible to allow for adequate review and evaluation.

What Happens After the Public Comment Period Closes

Following close of the public comment period, the Presiding Officer will prepare a report that summarizes the oral testimony presented and identifies written comments submitted. The Environmental Quality Commission (EQC) will receive a copy of the Presiding Officer's report. The public hearing will be tape recorded, but the tape will not be transcribed.

The Department will review and evaluate the rulemaking proposal in light of all information received during the comment period. Following the review, the rules may be presented to the EQC as originally proposed or with modifications made in response to public comments received.

The EQC will consider the Department's recommendation for rule adoption during one of their regularly scheduled public meetings. The targeted meeting date for consideration of this rulemaking proposal is March 8 or 9, 2001. This date may be delayed if needed to provide additional time for evaluation and response to testimony received in the hearing process.

You will be notified of the time and place for final EQC action if you present oral testimony at the hearing or submit written comment during the comment period. Otherwise, if you wish to be kept advised of this proceeding, you should request that your name be placed on the relevant "Interested Person" mailing list.

Background on Development of the Rulemaking Proposal

Why is there a need for the rule?

In 1998, the Environmental Quality Commission (EQC) requested that EPA redesignate the Medford area as in attainment with the carbon monoxide standard. At the same time, the EQC adopted a ten year Carbon Monoxide Maintenance Plan that demonstrated how the area would

continue to achieve the standard in the future. At that time, projections of future emissions indicated that oxygenated fuel was needed to ensure that the air quality standard would continue to be met.

Since then, however, new studies have found that the benefit of oxygenated fuel for 1996 and newer vehicles is greatly reduced. This is primarily due to increased combustion efficiency made possible by computerized engine controls. These new findings have been incorporated into new computer models used to project motor vehicle emissions. These models result in lower projections of future emissions than previously expected. EPA's Mobile 5B Cold CO computer model (the model used for this analysis) clearly indicates that oxygenated fuel will yield a reduced benefit as 1996 and newer vehicles comprise an ever increasing percentage of the fleet.

The requirement to use oxygenated fuel has been unpopular with many people in the Medford area since it was first introduced in 1992. Oxygenated fuel can be produced by adding any of several oxygenating agents to conventional gasoline, but ethanol and MTBE are the two most popular. Ethanol has always been the oxygenating agent used to make oxy-fuel for use in Oregon. (MTBE has been detected at several sites in Oregon where fuel leaked from underground storage tanks over the years, however the Department believes it was present for other purposes such as to increase a fuel's octane rating.) One of the effects of ethanol in fuel is to dislodge years of accumulated deposits in fuel systems of vehicles that had previously operated only on conventional gasoline. As a result, when oxygenated fuel was first used in Jackson County, many motorists experienced drivability problems produced by clogged fuel filters. While replacing the clogged filters quickly corrected most problems, the incident left some with a lasting negative impression. Oxygenated fuel also contains 3% less energy than conventional gasoline. That reduced energy content is often perceived by the public as being a larger decrease in fuel mileage.

New computer modeling now clearly indicates that Medford's air quality for carbon monoxide is good and likely to continue improving without oxygenated fuel. Now that this measure is no longer needed, the Department proposes to eliminate the requirement. However, the use of oxygenated fuel will remain as a component of the maintenance plan's contingency measures which require that oxygenated fuel be reinstated in the event that the carbon monoxide standard is violated in the future.

Incorporating the results of the new computer modeling also requires changes to the existing maintenance plan. As a consequence, the proposed maintenance plan revisions provide a newly constructed 1993 Emissions Inventory (for baseline emissions), and a new projection of emissions in the year 2015. These updated inventories provide the fundamental understanding of what the carbon monoxide emissions were in Medford during 1993 when the area achieved the standard, and how emissions in the future will compare to that level.

Because the new projection of future emissions indicates carbon monoxide emissions from on-road motor vehicles will be much lower than previously anticipated, the proposed maintenance plan revision also modifies the existing motor vehicle emissions budget. That emissions budget establishes the amount of carbon monoxide that can be allowed from on-road vehicles when future transportation systems are evaluated. The newly proposed emissions budget is set at 120% of the amount of CO projected to be emitted by motor vehicles in 2015. The intent of setting the limit 20% above projected amounts is to provide an allowance well above predicted emissions to accommodate unanticipated variations between emissions predicted by the current Mobile 5B Cold CO emissions model and the future Mobile 6 emissions model.

In addition, the proposed revisions provide an emissions budget for years beyond the maintenance plan to increase the certainty that air quality conformity problems will not be artificially created during the post plan period. The emissions budget for that period was determined by allowing an increased level of motor vehicle emissions in the year 2020—an amount that should actually accommodate population growth through 2030. (Accommodating growth through 2030 is important because that is the most distant future year in a regional transportation plan that could be subject to these emissions budgets before those budgets must be updated.) These emission allowances above actual projected emissions reflect the greater flexibility that can permitted when the newest projections show future CO emissions to be well below the airshed's capacity.

The proposed changes to the maintenance plan also include elimination of the Industrial Emissions Tracking program that was made part of the plan in 1998. At that time, total future emissions were estimated to barely remain within the airshed's capacity when industrial *actual emissions* were projected to grow at the same rate as industrial employment. EPA guidance allows the use of projected *actual emissions* (rather than the total emissions allowed under all issued permits) for CO in making a maintenance demonstration. That is because motor vehicles are the largest source of CO emissions and because CO is a localized pollutant that does not transport throughout an area. Therefore, most locations with elevated CO levels are usually at busy intersections where industrial (point) sources are generally not significant contributors. Due to the significant safety margin in the most recent CO emissions projections produced by EPA's new mobile emissions models, future emissions remain well below the airshed's capacity. Therefore, the Department believes that the Industrial Emissions Tracking Program is no longer necessary and proposes to remove it from the plan.

Finally, the proposed revisions to the Medford CO Maintenance Plan also adjust the amount of CO emissions reduction that is attributed to the DEQ Inspection & Maintenance (vehicle testing) program. The Department of Transportation's Driver and Motor Vehicles Services has expressed interest of amending the Motor Vehicle Registration statute to exempt most new vehicles from

the emissions testing program for their first four years rather than two years as is now the case. The Department analyzed the effect of that change and found that in 2015 it would increase CO emissions on a typical winter day by 74 pounds. That amount is negligible compared to the projected total emissions in 2015 of 67,872 pounds CO per day and the Medford airshed capacity of 112,143 pounds per day established by the 1993 Emission Inventory. Therefore, the emissions projections in the proposed maintenance plan assume that the first four vehicle years will be exempt from the vehicle inspection and testing program throughout the maintenance plan period. This assures the maintenance plan won't need to be revised again if the 2001 legislature adopts the Transportation Department's proposal.

How was the rule developed?

In 1998, DEQ worked closely with the Medford-Ashland Air Quality Advisory Committee to develop the control measures to be used in the Medford CO Maintenance Plan. At that time, computer models indicated that oxygenated fuel was needed to meet the carbon monoxide standard. However, at the same time it was anticipated that a new computer model being developed (Mobile 6) was likely to predict a much improved air quality scenario in the future. In light of some persistent, unfavorable opinions about oxygenated fuel in Jackson County, DEQ made a commitment to the advisory committee to promptly reevaluate the continued need for oxy-fuel once Mobile 6 became available.

Since then, the release of Mobile 6 was delayed repeatedly which in turn postponed any reevaluation of oxygenated fuel in Medford. However, early in 2000, EPA Region 10 indicated that an interim emission factor model (Mobile 5B Cold CO) would be acceptable to be used for the oxygenated fuel reevaluation. (Mobile 5B Cold CO is the current computer emissions model that was modified to incorporate the new information used in Mobile 6.)

The Department used the Mobile 5B Cold CO model to analyze the need for oxygenated fuel in Medford and reported the findings of the reevaluation to the advisory committee at meetings in June and October of this year. At the October meeting the committee unanimously recommended that the wintertime requirement to use oxygenated fuel in Jackson County should be discontinued. This proposed rulemaking was prepared in response to that recommendation.

Copies of the documents relied upon in the development of this rulemaking proposal can be reviewed at the Department of Environmental Quality's office at 811 S.W. 6th Avenue, Portland, Oregon. Please contact Linda Fernandez at (503) 229-5359 for times when the documents are available for review.

Whom does this rule affect including the public, regulated community or other agencies, and how does it affect these groups?

Once the revision is approved by EPA's Region 10, the proposed removal of the oxygenated fuel requirement will provide additional flexibility to Jackson County fuel suppliers by allowing them to choose whether or not to ship oxygenated fuel to the Medford area. It is understood that for several years some fuel suppliers have provided oxygenated fuel to Oregon markets throughout the year regardless of the oxygenated fuel requirements. The reasons for this may be due to a variety of factors such as the current high cost of petroleum compared to ethanol, the tax advantages given ethanol, and ethanol's octane-boosting benefits. Therefore, the degree to which the type of fuel supplied to Jackson County will actually change is difficult to predict.

How will the rule be implemented?

Once the removal of the oxygenated fuel program is approved by EPA Region 10, DEQ will suspend the current implementation activities of the Medford office. The Department expects to submit the revised maintenance plan to EPA in April 2001 shortly after adoption by the Environmental Quality Commission with a request for expedited review. Because expedited review requires a minimum of one year, the Department anticipates that the earliest the lifting of the oxy-fuel requirements could take effect would be the oxy-fuel season of 2002 to 2003.

Are there time constraints?

There are no time constraints for submitting the proposed revisions to the Medford CO Maintenance Plan. These modifications are motivated by the general desire of Jackson County residents to lift the oxygenated fuel requirements together with the recognition that the Medford area no longer needs this control measure to maintain healthful air quality.

Contact for More Information

If you would like more information on this rulemaking proposal, please contact:

Dave Nordberg
Oregon DEQ – 11th Floor
811 S.W. 6th Ave.
Portland, OR 97204-1390

(503) 229-5519 or toll free in Oregon (800) 452-4011

This publication is available in alternate format (e.g. large print, Braille) upon request. Please contact DEQ Public Affairs at 503-229-5317 to request an alternate format.

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

Date: January 17, 2001

To: Environmental Quality Commission

From: Keith Tong 01-17-01

Subject: Presiding Officer's Report for Rulemaking Hearing
Hearing Date and Time: January 16, 2001, 7:00 PM
Hearing Location: Medford
Title of Proposal: Revision of the Medford Carbon Monoxide Maintenance Plan to Remove Requirements for Oxygenated Fuel

The rulemaking hearing on the above titled proposal was convened at 7:00 PM. The hearing was closed at 8:30 PM. People were asked to sign registration forms if they wished to present comments. People were also advised that the hearing was being recorded.

12 people were in attendance, 4 people signed up to give oral comments.

Prior to receiving comments, the hearings officer briefly explained the specific rulemaking proposal and the procedures to be followed during the hearing.

The following report provides a summary of written and oral comments received and the Department's response to each comment. Comments are shown in the order presented by those providing testimony.

Howard Misner, fuel manager for the Grange Co-Op, stated he had mixed emotions on oxy gas. He acknowledged that at the start of the program oxygenates had reduced CO but now, with fleet turnover to newer technology, oxygenates benefit were much reduced. With the effects of oxygenates on small engines (chainsaws, lawnmowers, etc.) older cars, and fuel economy it will be a good move by DEQ to discontinue the program. On a side note, Mr. Misner pointed out that even though MTBE is not the real issue for this meeting that he too feels that MTBE should not be in gasoline.

Jackson County Commissioner, Ric Holt, presented testimony admonishing EPA and DEQ for implementing and continuing the oxygenated gasoline program. Commissioner Holt stated that oxygenates, including MTBE and ethanol, are harmful to health and are carcinogens. These oxygenates are being released into the air and watershed and there is a class action suit soon to be filed against the agencies responsible for the oxygenated gasoline program. Contamination of ground water that has been allowed will need to be cleaned up and will be very costly to the taxpayer. The oxygenated gasoline program should be ended everywhere with no further delays. Even though Oregon may not have used much MTBE, a lot of it has been released in Oregon due

to people from California driving their cars fueled with MTBE contaminated gasoline into Oregon.

Dan Hawkins, from Hawk Oil (a local fuel distributor) stated that there had been problems with fuel distribution where their market areas crossed oxygenated fuel boundaries. People outside the boundaries did not want oxygenated fuel delivery and that disrupted routes that had been long established. People inside the boundaries had also driven to gas stations outside the boundaries to purchase non-oxygenated gasoline. Mr. Hawkins stated that extra costs of distribution will result from delaying the removal of the oxygenated gasoline requirements. Removing the oxygenated fuel requirements immediately (rather than wait the year that EPA takes for review) in all control areas was requested.

Mike Rainey, owner of a gas station in Sams Valley, stated he felt Dan Hawkins was right. Mike added that people used small containers to store non-oxy gas purchased prior to the start of the oxy gas season and he felt this type of storage created a hazardous situation.

Before and after the public meeting, DEQ staff discussed aspects of the oxygenated gasoline program and reminded everyone that EPA must review and verify the information in the proposal prior to giving DEQ the go ahead to discontinue the oxygenated gasoline program. EPA's review will take approximately a year to a year and a half and EPA has been asked to expedite the review. At one point during the meeting, Commissioner Holt was reminded by other citizens attending the meeting that MTBE was not an issue on the agenda tonight. DEQ staff pointed out that MTBE and ethanol are not listed by EPA as carcinogens and that nationwide work is ongoing to investigate and resolve the groundwater issues.

Index of Written Comments and
Department's Evaluation of All Comments Submitted

In addition to the verbal testimony summarized in the Presiding Officer's Report of Rulemaking Public Hearing (Attachment C) four written comments were submitted regarding the proposed changes to the Medford Carbon Monoxide Maintenance Plan. Written comments are summarized below, followed by the Oregon Department of Environmental Quality's evaluation of all comments received, both written and verbal.

1. Commenter: John Phimister of WSCO Petroleum

   Comment: WSCO Petroleum supports eliminating the oxygenated fuel since it is no longer needed to maintain the air quality standard for carbon monoxide. WSCO also notes that the oxygenating agent MTBE is being banned in other states which could drastically increase the demand for ethanol--the oxygenating agent used in Oregon. In turn, the increased demand could produce ethanol shortages and sharp increases in the cost of ethanol-based oxygenated gasoline.

2. Commenter: Daniel T. Riley of Western States Petroleum Association (WSPA)

   Comment: WSPA indicates that regulations with compliance costs should be discontinued once they are no longer needed. WSPA supports removing the oxygenated fuel requirements from Jackson County and urges concurrent approval of this action by EPA.

3. Commenter: Steve O'Toole of Oregon Petroleum Marketers Assoc. (OPMA)

   Comment: OPMA states that ethanol is very difficult to transport and that the ethanol supply could be seriously disrupted by bans on MTBE in other areas. OPMA supports the proposed lifting of the oxygenated fuel requirement in Jackson County, but opposes adding the oxygenated fuel program to the Contingency Plan which would reinstate the oxy-fuel program in the event of future violations of the carbon monoxide standard.

4. Commenter: Christopher C. Wohlers of Wohlers Environmental Services, Inc.

   Comment: Wohlers Environmental supports the proposed removal of the oxygenated fuel requirement in the Medford area noting that the program is no longer justified by air quality needs and citing the "severe strains" on the supply of ethanol that are expected as a result of MTBE bans in other areas.

Oregon Department of Environmental Quality Evaluation of Comments

The department acknowledges that all public comments submitted essentially support the proposed revisions of the Medford Carbon Monoxide Maintenance Program to discontinue the oxygenated fuel requirement in Jackson County. The department also acknowledges that serious disruptions in ethanol price and availability could result if MTBE bans in California and elsewhere are not combined with a relaxation of the federal requirement to use oxygenating agents (ethanol or MTBE) in reformulated gasoline.

The department also notes that several comments included statements discouraging the use of MTBE in Oregon's gasoline. Under federal requirements, either MTBE or ethanol can legally be used for several purposes: 1) to produce reformulated gasoline (required in the worst ozone air quality areas such as California), 2) to produce oxygenated gasoline to reduce winter carbon monoxide (including areas in Oregon), or 3) to increase a fuel's octane rating. The agency therefore clarifies that this proposed rulemaking action will have no direct effect on the use of MTBE in this state. While Oregon's fuel distributors indicate they have never used MTBE to produce oxygenated fuel for this state, it has been used for other purposes—most probably to enhance octane. It has been legal to use MTBE in Oregon in the past, and it will continue to be legal to use MTBE in the future.

It is possible, however, that this action could reduce the likelihood of future MTBE use in Oregon in an indirect fashion under certain circumstances. If the ban on MTBE in California creates an ethanol shortage, and the Jackson County oxygenated fuel requirements remain in place, fuel suppliers could choose to meet future oxy-fuel requirements by replacing ethanol with MTBE. While this line of reasoning is entirely hypothetical, eliminating the oxygenated fuel requirement in Jackson County can only reduce the likely demand for any oxygenates in Oregon's gasoline.

Some comments expressed dissatisfaction that the oxygenated fuel requirement must remain in effect until any change is approved by EPA as a revision of the State Implementation Plan (SIP) and urged the department to pursue various actions to accelerate the process. However, the department's authority is limited to its own agency and EPA is responsible for meeting its own set of obligations. As noted in the EQC staff report, the department will request EPA's expedited review of the proposed maintenance plan revisions but also recognizes that expedited review still requires a minimum of one year.

A single comment objected to the proposed addition of the oxygenated fuel program to the contingency provisions of the revised maintenance plan. This revision is mandated by Section 175A(d) of the Clean Air Act. That passage requires that in the event of a future violation of the air quality standard that emission reduction strategies that were in place before an area was redesignated to attainment must be reinstated. The department has no discretion regarding that particular contingency measure.

Therefore, in light of the department's evaluation of public comments submitted, the Oregon Department of Environmental Quality proposes that the Environmental Quality

Commission adopt the proposed revisions to the Medford CO Maintenance Plan without modification.

Medford-Ashland Air Quality Advisory Committee
Membership Roster

Name	Affiliation
Mike Montero, Chair	Chamber of Commerce
Sherrin Coleman	Rogue Valley Transit District
Cory Crebbin	Medford Public Works
Mayor Marian Telerski	City of Talent
Phillip Frazee	Citizen
Monte Grove	ODOT
Leon Guild	Coalition to Improve Air Quality
Maria Harris	City of Ashland
Jim Key	City of Medford
Councilor Skip Knight	City of Medford
Commissioner Sue Kupillas	Jackson County
Councilor John LeGros	City of Central Point
Mayor Jim Lewis	City of Jacksonville
Mayor Dave McFall	City of Eagle Point
Mayor Bill Walton	City of Central Point
Larry Medinger	Homebuilders' Association
Ron Meyers	Fruit Growers
Dan Moore	Rogue Valley Council of Governments
Vera Morrell	League of Women Voters
Dr. Bob Palzer	Sierra Club
Mayor Larry Parducci	City of Phoenix
Jeff Schwanke	Oregon Department of Forestry
Mayor Catherine Shaw	City of Ashland
Wally Skyrman	Coalition to Improve AQ
Gary Stevens	Jackson County Health
Russell Strader	Boise Cascade
Gary Grimes	Timber Products

State of Oregon
Department of Environmental Quality Memorandum

Date: 2/16/01

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item K, Information on the Underground Injection Control Program and Rules, EQC Meeting March 8 – March 9, 2001

Statement of Purpose

This agenda item provides the Environmental Quality Commission (EQC) with background information on the Underground Injection Control (UIC) program. The Department is currently reviewing and revising existing state UIC rules to incorporate federal regulations promulgated in 1999 into the state program. The state UIC rules were last revised in 1983 and this is a timely opportunity to add housekeeping changes and other updates. The Department will present a proposal for rule revisions to the EQC for adoption in May 2001.

Background

Overview

Regulation of underground injection to protect underground sources of drinking water is mandated at the federal level by the 1974 Safe Drinking Water Act. Federal regulations establish minimum requirements for Underground Injection Control (UIC) programs and allow states to be delegated program administration authority. In 1984, EPA authorized the Department of Environmental Quality to administer the Underground Injection Control (UIC) program for the state of Oregon. The UIC program focuses on groundwater quality protection. Other Safe Drinking Water Act programs dealing with public drinking water supply systems are administered primarily by the Oregon Health Division.

Purpose of UIC Program

The purpose of the UIC program is to protect groundwater resources from contamination caused by disposal of waste fluids into injection systems. The program regulates injection into wells, holes, sewage drain holes, dry wells, sumps, underground piping systems, multifamily and non-residential septic systems, drainfields, and a variety of other systems used to place fluids into the subsurface.

Federal UIC Requirements

Federal regulations require that underground injection systems be authorized by rule or permit, be inventoried, and meet a performance standard of not endangering groundwater. Five classes of wells are defined in federal regulation. Class I (deep hazardous and industrial waste injection), Class II (oil and gas

production and storage), and Class III (mineral extraction) wells require a permit. Class IV wells (shallow hazardous waste injection) are prohibited nationally. Class V wells (generic category for wells not included in Class I through IV) are generally rule authorized, unless a potential endangerment of groundwater requires regulation under a permit.

Recent Federal Rulemaking

EPA has been reviewing regulation of Class V wells relative to the risk posed by certain types of injection. In 1999, revisions to federal regulations were adopted to address two types of high risk Class V wells – large capacity cesspools and motor vehicle waste disposal wells. Federal rules now prohibit the construction of new large capacity cesspools and motor vehicle waste disposal wells and mandate phasing out use of existing wells of these types within a specific time frame. Federal regulations specify that state programs implement these changes by December 31, 2000. The Department has requested an extension on this deadline. EPA is also under a court ordered schedule to address other high risk Class V wells in 2001.

Oregon UIC Program Development

Oregon preceded federal mandates by establishing rules in **1969** to restrict or prohibit the construction and use of waste disposal wells (OAR 340-044 Construction and Use of Waste Disposal Wells). The Environmental Quality Commission found that the discharge of untreated sewage and waste into waste disposal wells, especially in the lava terrain in Central Oregon, constituted a threat to groundwater and public health and established a policy and deadlines to phase out their use.

In **1981**, the Commission adopted a groundwater policy in rule to control all waste storage and disposal to preserve and protect groundwater quality for all beneficial uses (formerly OAR 340-041-029; now OAR 340-040 Groundwater Quality Protection).

After federal rules mandated development of a state UIC program, an initial inventory and assessment of underground injection systems in Oregon was conducted in **1981** and **1982**. The initial inventory identified only one Class II well used for reinjection of gas production fluids, with the remaining systems in the Class V category. The assessment noted that the Class V wells with the highest contamination potential were storm water drainage wells in Bend and Redmond.

In **1983**, the state rules for waste disposal wells (OAR 340-044) were revised to incorporate federal UIC program elements. The rules prohibited disposal systems

that were equivalent to federal Class I, Class II liquid petroleum storage, Class III, and Class IV categories. The rules used existing authorities to require that any person constructing or operating a disposal system discharging into the ground obtain a Water Pollution Control Facility (WPCF) permit. Some Class V wells with a low threat to groundwater were allowed in the rule without a permit. These included some smaller capacity cesspools, some storm water drains, air conditioning return flow wells, and geothermal reinjection wells. The rules as revised in 1983 are currently in effect.

In **1984**, EPA approved Oregon's UIC program administered by DEQ for all classes of wells, with state statutes and regulations incorporated into the federal program by reference.

Oregon UIC Requirements

The Oregon UIC requirements protect all groundwater of the state for beneficial use as drinking water. The federal UIC requirements under the Safe Drinking Water Act focus on protection of underground sources of drinking water that supply, or could supply, public drinking water systems.

The Oregon UIC requirements prohibit several types of underground injection and require permits for all other injection except for a few types of Class V wells. The federal UIC requirements prohibit Class IV wells and generally authorize by rule Class V wells that do not endanger groundwater.

Current Oregon UIC Program

The Department maintains a database of information for underground injection systems registered in the state. There are about 15,000 injection systems currently inventoried with the following types:

- 53% - Storm water injection
- 40% - Cesspools - closed or no longer in use
- 1% - Cesspools – active
- 3% - Septic system drainfields
- 3% - Other

Although the federal requirement to submit inventory information for all injection systems has been in place since the 1980s and is part of Oregon's program approved by EPA in 1984, the Department found that many injection systems have been installed and are in use without the proper authorization and submittal of inventory information. The Department initiated statewide efforts in 1999 and 2000 to inform private owners and municipalities of the requirement to submit inventory information and bring them into compliance with the UIC regulations under an "amnesty" from enforcement for lack of registration. The

Department added about 1000 systems to the inventory in 1999 and 4000 systems in 2000.

Potential Threats to Groundwater

Although disposal of industrial and hazardous wastes into underground injection systems is currently prohibited, the Department has found that many occurrences of groundwater contamination can be traced to disposal of wastes into injection systems. Waste disposal may have occurred prior to regulatory programs being in effect, or due to accidental or illicit disposal of wastes into underground injection systems. Threats to public and private drinking water supplies from specific sites contaminated through hazardous substance disposal in drywells, septic systems, and drill holes can be documented in several areas of the state.

DEQ Response to New Federal UIC Rules

DEQ has been reviewing state UIC rules and will be recommending rule revisions for adoption by the Commission at a future meeting. To retain UIC program primacy, 1999 federal requirements for high risk Class V injection wells need to be incorporated into Oregon's UIC program and rules. Additionally, the rule revisions will add basic program elements, such as the requirement to register and inventory underground injection systems and an injection well classification system, to be consistent with the federal program requirements. Other rule revisions will provide a clearer structure for the UIC program and will update UIC requirements to be consistent with current state water quality protection requirements such as OAR 340-040 – Groundwater Quality Protection.

Authority of the Commission with Respect to the Issue

The authority to prevent pollution of waters of the state is given in ORS 468B.020. Under ORS 468.020, the Environmental Quality Commission may adopt rules and standards necessary to perform its functions. The Commission has authority under ORS 454.625 to regulate subsurface sewage disposal. The Commission has authority under ORS 468B.165 to adopt rules establishing maximum levels for contaminants in groundwater.

The UIC rules implement ORS 454.655 requiring a permit for subsurface sewage disposal systems, ORS 468B.025 prohibiting activities that cause pollution of waters of the state, ORS 468B.050 requiring permits for waste disposal, ORS 468B.053 providing alternatives to obtaining water quality permits, ORS 468B.155 declaring a state goal to prevent groundwater contamination, and ORS 468B.160 to control management and use of the state groundwater resource.

Alternatives and Evaluation

The state rules and UIC program must be consistent with federal UIC requirements. Several of the rule revisions under consideration are necessary to be consistent with federal requirements in order to maintain state delegation of the UIC program.

The Department has been evaluating various options for storm water injection regulation. These include:

(1) Maintaining the current regulation that allows rule authorized injection of some storm water under certain conditions,
(2) Expanding the rule authorization of storm water injection to include more types of storm water injection systems with specific conditions and requirements,
(3) Expanding the rule authorization of storm water injection to cover all injection systems with or without conditions, or
(4) More controlled regulation of storm water injection using general or individual permits.

Summary of Public Input Opportunity

Task Force

The Underground Injection Control (UIC) Task Force provided input to DEQ in drafting the proposed rule revisions. The advisory committee members are identified in Attachment A and included eleven city, water supplier, business, and automotive service industry representatives and five state agency representatives. The UIC Task Force met seven times between November 1999 and May 2000. The UIC Task Force recommended proceeding with the rule revisions and supported the rule revision language proposed for public comment with some specific recommendations.

Public Hearings

A public comment period and public hearings were held during August 2000 on the proposed rule revision language. Public hearings were held in Portland, Medford, and Bend. Written comments were accepted until August 31, 2000. After the close of this comment period, the Department reviewed and evaluated the rulemaking proposal.

In response to comments received in August, the Department revised the portion of the proposed rules that dealt with the regulation of storm water injection systems and prepared another draft rule proposal. The public comment period was extended until December 15, 2000. A public hearing was held in Portland on

December 12, 2000. The Department is currently reviewing and evaluating comments received through the end of the extended public comment period.

Continuing Concerns

Issues raised during the public comment period focus primarily on specific rule requirements proposed for different categories of rule authorized storm water injection systems. Representatives from municipalities have raised as issues of concern the extent of monitoring required as part of a municipal storm water management plan and the comparison of monitoring results to federal drinking water standards.

The Department is continuing to work toward resolving these issues and will present its recommendations to the Commission in May 2001.

Conclusions

- The Underground Injection Control program is an important tool for protecting Oregon's groundwater resource. Authority to administer this program at a state level is consistent with other state programs to protect groundwater.
- The Oregon Underground Injection Control regulations strictly regulate injection activities by prohibiting some injection activities, requiring a permit for other injection activities, and allowing some limited injection without a permit if groundwater will not be polluted.
- Some Class V injection wells present a risk for causing groundwater pollution. Groundwater contamination due to waste disposal in Class V injection systems has occurred.
- A substantial number of injection wells in Oregon are used to dispose of storm water.
- The Department is evaluating options for regulating storm water injection and likely will recommend expanding the rule authorization of storm water injection to include more types of storm water injection systems with specific conditions and requirements.

Intended Future Actions

The Department will continue evaluating the issues raised in public comments on the proposed UIC rule revisions and work toward formulating an acceptable response. The Department intends to return to the Commission in May 2001 with a recommendation that the Commission adopt revisions to Underground Injection Control rules.

Department Recommendation

It is recommended that the Commission accept this report, discuss the matter, and provide advice and guidance to the Department as appropriate.

Attachments

Attachment A - Underground Injection Control (UIC) Task Force Advisory Committee Members

Reference Documents (available upon request)

1. July 14, 2000 Memorandum regarding Rulemaking Proposal and Rulemaking Statements – Revisions to Underground Injection Control Rules (OAR 340-044)
2. May 18, 2000 UIC Task Force Recommendations
3. November 16, 2000 Proposed Revisions to OAR 340-044
4. December 13, 1982 Final Report – Assessment of Selected Class V injection Wells in the State of Oregon
5. September 7, 1983 Oregon Underground Injection Control (UIC) Program Description
6. October 1983, Underground Injection Control Program, Legal Counsel's Statement

Approved:

Section:

Division:

Report Prepared By: Karla Urbanowicz

Phone: 503-229-6099

Date Prepared: 2/16/01

KLU
2/16/01

Underground Injection Control (UIC) Task Force Advisory Committee Members			
Members	Organization	Address	
Barry Beyeler	City of Boardman	PO Box 229 Boardman, OR 541-481-9252	
Terry Bounds	Orenco Systems	814 Airway Ave Sutherlin, OR 97479-9012 541-459-4449	
Jim Krahn	Oregon Dairy Association	10505 SW Barbur Blvd Portland, OR 97219 503-229-5033	
Ralph Christensen	EGR	2535 B Prairie Road Eugene, OR 97402 541-688-8322	
Mary Meloy	City of Redmond	Director of Public Works 875 SE Sisters Ave. Redmond, OR 97756 541-504-2001	
Nancy Moreno	Springfield Utility Board	Springfield Utility Board 202 South 18th St Springfield, OR 97477 541-744-3745	
Mary Stephens	Association of Clean Water Agencies	City of Portland Bureau of Environmental Services 1120 SW Fifth Ave Room 1000 Portland, OR 97204 503-823-7580	
Willie Tiffany	League of Oregon Cities	PO Box 928 Salem, OR 97308 503-588-6550	
Christine Vail	Pacific Automotive Trades Association	1710 NE 82nd Ave Portland, OR 97220 503-253-9898	
Patricia Vernon	Fred Meyer	PO Box 42121 Portland, OR 97242 3800 SE 22nd Ave Portland, OR 97202 503-797-5617	
Jan Wick	Avion Water Co., Inc.	60813 Parrell Rd Bend, OR 97702 541-382-5342	
Alternates			
Paul Eckley	City of Salem	Public Works Department 555 Liberty Street SE Room 325 Salem, OR 97301-3503 503-588-6211	Alternate for League of Oregon Cities
John Smits	Smits & Associates, Inc.	PO Box 116 Clackamas, OR 97015 503-699-2696	Alternate for Terry Bounds

Adjunct Members		
Erick Burns	Oregon Department of Agriculture	635 Capitol St NE Salem, OR 97301-2532 503-986-4777 eburns@oda.state.or.us
Peggy Collins	Oregon Building Codes Division	PO Box 14470-0404 Salem, OR 97309 503-373-1258 Peggy.A.COLLINS@state.or.us
Donn Miller	Oregon Water Resources Department	158 12th Street NE Salem, OR 97310 503-378-8455 ext 205 Donn.W.Miller@state.or.us
Dennis Nelson	Oregon Health Division	442 A Street Springfield, OR 97477 541-726-2587 donelson@oregonvos.net
Dan Wermiel	Oregon Department of Geology and Mineral Industries	800 NE Oregon St. Suite 965 Portland, OR. 97232 503-731-4100 x227 dan.wermiel@state.or.us

State of Oregon

Department of Environmental Quality Memorandum

Date: February 21, 2001

To: Environmental Quality Commission

From: Stephanie Hallock, Director

Subject: Agenda Item L, PBT Informational Report, EQC Meeting March 8-9, 2001

Statement of Purpose

The purpose of this informational item is to review the Governor's Executive Order on Persistent, Bioaccumulative and Toxic Pollutants with the Commission and update the Commission on steps the Department has taken to date to implement this Executive order.

Background

On September 24, 1999 Governor Kitzhaber issued Executive Order 99 – 13 "Elimination of Persistent, Bioaccumulative and Toxic Pollutants (PBTs) (attached), and by this order the Department of Environmental Quality was directed to be the lead state agency in implementing the order.

The history leading up to this event involves over thirty years of federal and state regulation trying to address toxic pollutants in the environment. In spite of all these efforts, the nation continues to be plagued by current fish consumption and other health advisories for substances like mercury, pesticides like DDT (which have been banned for 25 years) and industrial products like polychlorinated biphenyls (PCBs). All of these chemicals possess the characteristics of being long lived in the environment (persistent P), accumulating and concentrating in biological organisms (bioaccumulative B), and causing morbidity and/or mortality in biological organisms (toxic T). Because of the nature of these PBT chemicals the prevailing pollution control approach of allowing discharges is not totally effective. PBTs are different than conventional pollutants in that they are not assimilated and degraded in the environment. The end of the pipe approaches to pollution control for PBTs do not work because they only dilute the PBTs to meet an ambient standard, or they just accept the limits of existing technology as acceptable emissions. They fail to look holistically at the fate of the PBT pollutants. Ultimately this fate involves being either directly absorbed by organisms or deposited in the sediments and on land from which they continue to bioaccumulate up the food chain.

In response to this, EPA issued a national PBT strategy in 1998 to reduce the risks to human health and the environment from exposure to PBT pollutants. The starting point and model for

this PBT strategy is the 1997 Canada – US strategy for the Virtual Elimination of Persistent Toxic Substances in the Great Lakes (BiNational Strategy – BNS). And its Level I substances of concern:

aldrin/dieldrin	mercury and compounds
benzo(a)pyrene	mirex
chlordane	octachlorostyrene
DDT+DDD+DDE	PCB's
hexachlorobenzene	PCDD (dioxins) and PCDF (furans)
alkyl-lead	toxaphene

In addition, the EPA strategy contains four main elements:

- Develop National Action Plans for each substance identified as a PBT Pollutant.
- Screen and select additional PBT Pollutants.
- Prevent the introduction of new PBT Pollutants.
- Measure progress

With Oregon having several fish consumption advisories involving a number of these PBT pollutants, the Governor, in issuing the Executive Order, sought to put a 20 year time line on eliminating releases of these materials to Oregon's environment. In implementing this Order the Department has taken the following steps:

- Established an internal technical advisory group.
- Briefed potentially impacted state agencies.
- Selected a subset of ten of the above PBT pollutants to focus on based on a review of all our environmental monitoring databases.
- Established an internal strategy advisory group.
- Developed a list of possible strategies.
- Is preparing to go out for public input.

Department Recommendation

It is recommended that the Commission accept this report, discuss the matter, and provide advice and guidance to the Department as appropriate.

Attachments

Attachments

Governor's Executive Order 99 - 13

Approved:

Section:

Division:

Report Prepared By: Richard Gates

Phone:

Date Prepared: 21 Feb 01

F:\TEMPLATE\FORMS\EQCINFO.DOT
10/13/95

EXECUTIVE ORDER NO. EO - 99 - 13

ELIMINATION OF PERSISTENT, BIOACCUMULATIVE, AND TOXIC POLLUTANTS

WHEREAS, the quality of Oregon's environment today is the result of many years of combined efforts by the public, government agencies, and industry;

WHEREAS, recent international studies have concluded that contaminants that are persistent, bioaccumulative, and toxic present the greatest risk to human health and the environment, and are not adequately addressed;

WHEREAS, these persistent, bioaccumulative, and toxic pollutants (PBTs) are associated with a broad range of adverse human health impacts such as cancer, effects on the nervous system, reproductive and development problems and hormonal disruption;

WHEREAS, PBTs accumulate in the tissues of plants and animals and become increasingly concentrated as they move up the food chain;

WHEREAS, PBTs remain an environmental and health concern long after they are used, generated as waste, or released into the environment;

THEREFORE, IT IS HEREBY ORDERED AND DIRECTED:

1) In order to address the presence of the most threatening chemical substances in Oregon's environment, the Oregon Department of Environmental Quality shall lead a state-wide effort to eliminate the releases of PBTs into the environment.

2) Oregon's initial goals in this effort shall be to:

- Outline a range of approaches that might be undertaken in Oregon to identify, track and eliminate the release of PBTs into the environment by the year 2020;
- Evaluate state, national, and international efforts to eliminate PBTs;
- Use available information to identify which PBTs are generated in Oregon, determine what activities generate PBTs, estimate the amounts being generated, and identify missing data; and
- Identify ways to utilize education, technical assistance, pollution prevention, economic incentives, government procurement policies, compliance, and permitting activities to eliminate PBT releases.

3) All Oregon citizens, businesses, and governments are encouraged to participate in efforts to implement this Executive Order.

Done at Salem, Oregon, this 24 day of September, 1999.

/S/
John A. Kitzhaber, M.D.
GOVERNOR

ATTEST:
/S/
Phil Keisling
SECRETARY OF STATE