

**10/24/1986**

**OREGON  
ENVIRONMENTAL QUALITY  
COMMISSION MEETING  
MATERIALS**



State of Oregon  
**Department of  
Environmental  
Quality**

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OREGON ENVIRONMENTAL QUALITY COMMISSION MEETING

October 24, 1986

Room 602  
Multnomah County Courthouse  
1021 SW Fourth Avenue  
Portland, Oregon

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TENTATIVE AGENDA

9:00 am CONSENT ITEMS

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

- A. Minutes of the September 12, 1986 EQC Meeting.
- B. Monthly Activity Report for August 1986.
- C. Tax Credit Applications.

9:10 am PUBLIC FORUM

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

ACTION ITEMS

Public hearings have previously been conducted on items marked by an asterisk (\*). The Commission may, however, wish additional information on these items and accept comments from interested persons or call on interested persons to answer questions. This opportunity shall not replace comments at public hearings. Public testimony will be accepted on all other items.

- \*D. Proposed approval of the slash burning smoke management plan revisions as an amendment to the State Implementation Plan (OAR 340-20-047).
- \*E. Proposed adoption of the State Air Quality Implementation Plan revisions (OAR 340-20-047, Section 5.2) to address visibility protection in Class I areas.
- \*F. Proposed adoption of the Grants Pass Carbon Monoxide Strategy as a revision to the State Implementation Plan (OAR 340-20-047, Section 4.11).

(over)

- \*G. Proposed adoption of rules amending National Standards of Performance for New Stationary Sources, OAR 340-25-505 to -710 and amending National Emission Standards and Procedural Requirements for Hazardous Air Contaminants, OAR 340-25-460 to -485.
- H. Public hearing and proposed adoption of amendments to the State Implementation Plan (OAR 340-20-047) which include Lane Regional Air Pollution Authority modifications to their (1) Total Suspended Particulate Control Strategy for the Eugene-Springfield AQMA, and (2) New Source Review Rules and associated definitions including stack heights.

#### HEARING AUTHORIZATION

- I. Request for authorization to hold public hearings on Oregon's Oil and Hazardous Materials Emergency Response Plan.

#### INFORMATIONAL ITEM

- J. Informational Report: Recommendation to the Commission of three preferred landfill sites to serve the Tri-County Portland Metropolitan Area.

#### WORK SESSION

The Commission reserves this time, if needed, for further consideration of any items on the agenda.

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

The Commission will have breakfast (7:30 am) at the Imperial Hotel, 400 SW Broadway in Portland. Agenda items may be discussed at breakfast. The Commission will lunch in the new DEQ offices at 811 SW Sixth Avenue.

The next Commission meeting will be December 12, 1986 in Portland.

Copies of the staff reports on the agenda items are available by contacting the Director's Office of the Department of Environmental Quality, phone 229-5395, or toll free at 1-800-452-4011. Please specify the agenda item letter when requesting.

THESE MINUTES ARE NOT FINAL UNTIL APPROVED BY THE EQC

MINUTES OF THE ONE HUNDRED SEVENTY-FOURTH MEETING

OF THE

OREGON ENVIRONMENTAL QUALITY COMMISSION

September 12, 1986

On Friday, September 12, 1986 the one hundred seventy-fourth meeting of the Oregon Environmental Quality Commission convened at Room 314 of the Bend School District Building, 520 N.W. Wall Street in Bend, Oregon. Present were Commission Chairman James Petersen, Commission members Mary Bishop, and Wallace Brill. Commissioners Sonia Buist and Arno Denecke were absent. Present on behalf of the Department were its Director, Fred Hansen, and several members of the Department staff.

The staff reports presented at this meeting, which contain the Director's recommendations mentioned in these minutes, are on file in the Office of the Director of the Department of Environmental Quality, 522 SW Fifth Avenue, Portland, Oregon. Written information submitted at this meeting is hereby made a part of this record and is on file at the above address.

BREAKFAST MEETING

Commissioners Bishop, Brill and Petersen were present for the breakfast meeting.

Director Hansen reviewed for the Commission the status of the landfill siting process in the Portland Metropolitan Area. The Commission committed to holding the public hearings on the final three to four sites itself.

FORMAL MEETING

AGENDA ITEM A: Minutes of the June 27, 1986 special meeting and the July 25, 1986 regular meeting.

It was MOVED by Commissioner Bishop, seconded by Commissioner Brill and passed unanimously that the minutes be approved.

AGENDA ITEM B: Monthly Activity Report for June and July 1986.

It was MOVED by Commissioner Bishop, seconded by Commissioner Brill and passed unanimously that the Monthly Activity Report be approved.

AGENDA ITEM C: Tax Credit Applications

Director's Recommendations

It is recommended that the Commission take the following action:

1. Issue tax credit certificates for pollution control facilities:

<u>Appl. No.</u>	<u>Applicant</u>	<u>Facility</u>
T-1828	NW Printed Circuits	PH Neutralization and heavy metal pretreatment system
T-1829	Penwalt Corporation	Tanks, pH controller, agitators, acid/caustic feed systems, pond and piping
T-1830	Tektronix, Inc.	Total Organic Halide Analyzer
T-1831	Comco Construction Oregon Limited	Wet scrubber
T-1832	Tektronix, Inc.	Automated continuous hexavalent chromium analyzer
T-1833	Boise Cascade Corporation	Wet scrubber
T-1836	Columbia Steel Casting Co., Inc.	Baghouse expansion
T-1837	Pendleton Flour Mills, Inc.	2 Baghouses

2. Revoke Pollution Control Facility Certificate numbered 992 issued to Mt. Mazama Plywood Co. and re-issue to The Murphy Co. (letters attached).

Director Hansen noted that Tax Credit Application T-1791, Tektronix, had been withdrawn from consideration at this meeting as the Company was unable to attend. Application T-1791 will be presented at the Commission's next regular meeting.

It was MOVED by Commissioner Bishop, seconded by Commissioner Brill and passed unanimously that the Director's Recommendation be approved.

PUBLIC FORUM

No one appeared.

Chairman Petersen recognized the efforts of the Deschutes Wasteshed in implementing the Opportunity to Recycle Act, with the following statement.

"As a Bend resident, I am pleased to announce that the Deschutes Wasteshed Recycling Report has been approved by the Department of Environmental Quality. This means that the wasteshed meets all the requirements of the Recycling Opportunity Act. Bend and Redmond provide on-route collection of recyclable materials from both residences and businesses. Recycling depots are provided at every disposal site except for the very small, rural sites at Brothers and Alfalfa. Education, promotion and notification is being ably provided by Bend Recycling Team, on contract to Deschutes County."

"Deschutes County residents can be proud of their recycling program which is the second in the state to be approved by DEQ. Now that recycling is so easy and convenient in Deschutes County, it is up to all of us to participate and make the program a success."

AGENDA ITEM D: Request for Authorization to Conduct a Public Hearing on Pollution Control Tax Credit Rule Amendments, Chapter 340, Division 16.

Request for Authorization to Conduct a Public Hearing on Pollution Control Tax Credit Rule Amendments, Chapter 340, Division 16.

The proposed rule amendments are intended to define the term "actual costs" of a pollution control facility eligible for tax credit and to establish procedures for reissuance of tax credit certificates to transferees of pollution control facilities.

Director's Recommendation:

Based on the summation in the staff report, it is recommended that the Commission authorize public hearings to take testimony on the proposed amendments to the Pollution Control Tax Credit Rule, Chapter 340, Division 16.

Chairman Petersen was curious as to why the Department was recommending the definition of actual costs to be capitalized costs as used by accountants. Lydia Taylor, Administrator of the Department's Management Services Division, replied that the term "actual costs" was in the law, but it had never been defined by the Department in a rule. This matter came to the Department's attention

because of a proposal by Ogden Martin that the tax credit for garbage burner facility in Brooks include bond interest costs and contingency reserve funds that might not be considered actual costs of building the facility according to normal accounting practices. Ms. Taylor said that the easiest definition is capitalization of costs.

It was MOVED by Commissioner Brill, seconded by Commissioner Bishop and passed unanimously that the Director's Recommendation be approved.

AGENDA ITEM E: Request for Authorization to Conduct a Public Hearing on Proposed Amendments to the Hazardous Waste Permit Fee schedule, OAR 340-105-110.

This agenda item requests authorization to conduct a public hearing concerning proposed amendments to the hazardous waste permit fee schedule. The proposed amendments would increase the annual compliance determination fees for hazardous waste disposal sites and would temporarily rescind the permit application processing fees for hazardous waste storage facilities.

Director's Recommendation:

Based upon the summation in the staff report, it is recommended that the Commission authorize a public hearing to take testimony on the proposed amendments to the hazardous waste permit fee schedule in OAR 340-105-110.

Chairman Petersen asked what industry's preliminary response was to this proposal. Michael Downs, Administrator of the Department's Hazardous and Solid Waste Division, referred the Commission to Attachment F to the staff report which listed the membership of the Hazardous Waste Program Funding Committee. This Committee included members from Associated Oregon Industries, Oregon Petroleum Markets Association, Tektronix, Crown Zellerbach, Oregon Steel Mills, Wacker Siltronics and Chem-Security Systems, Inc. Mr. Downs said the Committee looked at the major fee increases for generators and treatment and storage facilities which were needed to fund the program in the future. Mr. Downs said the Department had not received feedback yet from other industries, but the proposed rule package has not yet been sent out. Director Hansen noted that the Committee was in unanimous agreement on the rule package.

Chairman Petersen asked why charging more would provide stability to the fund. Mr. Downs replied that the rule would increase each of the fee categories by \$50,000 thereby insuring that on the average the Department will get the additional revenue needed to maintain oversight of the facility.

Chairman Petersen asked if there would be years that more revenue was generated than would be needed. In that case, Mr. Downs said, the money would be carried over. Mr. Downs said that over the long-term if more revenue was generated that was needed, the rule would be revised.

It was MOVED by Commissioner Bishop, seconded by Commissioner Brill and passed unanimously that the Director's Recommendation be approved.

AGENDA ITEM G: Proposed Adoption of Amendments to Vehicle Inspection Program Operating Rules and Test Standards, OAR 340-24-330 and 24-335.

This is a request to adopt amendments to the Vehicle Inspection Operating rules. The amendments as proposed are:

1. Simplify the array of I/M idle test standards for 1972 through 1974 model year vehicles.
2. Establish a new I/M idle test standard for heavy duty gasoline vehicles that are manufactured with catalytic convertors.

No testimony was received at the Public Hearings and the proposals are the same as were presented to the Commission at the time of hearing authorization request.

Director's Recommendation:

Based on the summation in the staff report, it is recommended that the Commission adopt rule amendments as proposed.

It was MOVED by Commissioner Bishop, seconded by Commissioner Brill and passed unanimously that the Director's Recommendation be approved.

AGENDA ITEM F: Proposed Adoption of Revisions to "Spills and Other Incidents" Rules, OAR 340-108-001 through 340-108-021; Proposed Adoption of Additional Oil and Hazardous Material Spill and Release Rules OAR 340-108-030, -050, -060, -070, and -080; Proposed Revisions to Water Pollution and Hazardous Waste Management Schedule of Civil Penalties OAR 340-12-055 and -068; and Proposed Adoption of Oil and Hazardous Material Spill and Release Schedule of Civil Penalties, OAR 340-12-069.

Included are proposed revisions to existing spill rules in OAR 340, Division 108 and the Water Quality and Hazardous Waste Schedule of Civil Penalties in OAR 340, Division 12. The change came about as a result of additional authority granted by the 1985 Legislature to more fully regulate spills and releases, and threatened spills and releases of oil and hazardous material.

The Commission was given authority to designate materials as hazardous and that determination is represented Appendix I to the staff report. Appendix I adds some 300 chemicals to the list already regulated as hazardous wastes. The proposed rules also provide a level below which a spill or release does not need to be reported. This concept previously existed, although the proposed rules parallel EPA's approach to examine chemicals for their relative hazardous based on six technical criteria. The Department has decided, however, to recommend overall lower levels than EPA based on its belief that the Federal numbers are higher than appropriate for a State Emergency Response Program.

The proposed rules also contain cleanup standards for the first time for materials other than hazardous waste. The basic standard is lowest practicable levels of contamination after considering some 17 environmental and public health risk criteria. The Department believes this is a major step forward in giving guidance to the regulated community and Department staff.

Extensive revisions occurred as a result of the June 23, 1986 public hearing and two work sessions which were held on July 10 and July 30, 1986. Interested parties are to be complemented on the efforts they put forth at the work sessions to identify unclear rules, impractical rules, but most importantly, for bringing forward ideas to better write the requirements. In all areas but the reportable quantity level, basic consensus was reached on revised wording.

The Department believes it is proposing a new tougher set of cleanup requirements, yet a set of requirements that is attainable.

#### Director's Recommendation:

Based on the staff report, it is recommended that the Commission find that the hazardous materials listed in OAR 340, Division 108, Appendix I, because of their quantity, concentration or physical or chemical characteristics may pose a present or future hazard to human health, safety, welfare or the environment when spilled or released. It is also recommended that the Commission adopt proposed revisions to "Spills and Other Incidents" rules OAR 340-108-001 through 340-108-021; proposed rules OAR 340-108-030, -050, -060, -070 and -080; proposed revisions to Schedule of Civil Penalties OAR 340-12-055 and -068 and proposed rule OAR 340-12-069.

Commissioner Bishop asked how the average person would get involved with these rules. Richard Reiter, of the Department's Hazardous and Solid Waste Division, said the rules would generally apply to transporters and generators, but the statutes are aimed at "any person."

Commissioner Brill asked how enforceable the rules would be, for instance if a truck would spill how would the Department know contents, concentration etc. Mr. Reiter replied that under Worker Compensation rules, shippers and transporters must indicate on a manifest the content and quantity.

Mr. Reiter said the business community would be aware of these rules and would comply. He said the ordinary citizen who might spill, would not generally be aware of the rules.

Commissioner Bishop expressed concern about fining members of the general public without giving them information on the rules. Chairman Petersen asked if there could be anything done at the point of sale to notify the general public. Mr. Reiter said the Department could work with the Federal government which requires certain labels on containers.

Chairman Petersen said the Federal government has higher reporting levels, so they might not be willing to use Oregon's standards on labels. He said if the State was going to make a standard lower than the federal level with strict liability and civil penalties, the Department has a responsibility to warn people. Director Hansen said the Department would explore ways to handle individual controllers of regulated substances. At this stage, he continued, the Department was looking at the greatest area of concern and merely reflecting the language in the statutes. He said the Department realized that until people are educated, the rules may not be followed.

Mr. Reiter said that once a substance is designated, then liability is for the spilling of any amount. He said there had been some confusion between reportable quantity and strict liability for cleanup. Mr. Reiter said on small spills, depending on the hazard of the chemical the Department could trust the individual to clean up. In larger quantities, the agency needs to know about the spill in order to ensure clean up.

Chairman Petersen noted that the Department has reduced the reportable quantity greatly from what is contained in EPA regulations. He asked what in form was the EPA statement that they are expecting state and local response to small spills and releases then is covered by EPA rules. Mr. Reiter said he telephoned the author of the EPA rules to ask for explanation and also read a series of Federal Registers. He understood that the numbers principally reflect when federal employees need to respond to a spill. He said the one pound level was EPA's judgment that that was the smallest container materials are shipped in. Higher numbers were arbitrarily picked, and then to fit substances into that range EPA looked at the toxicity of the substance and decided on lethal concentrations that would equate to the ranges. Mr. Reiter said he clearly got a sense that EPA developed their numbers relative to the ability of federal employees to respond

and expect state and local officials to be at a spill for other reasons. Chairman Petersen clarified that this was based on informal discussions and not a statement of policy. He said the state had a right to be more strict than EPA regulations, but it needs good sound policy reasons for doing so because of the additional burden on the regulated community.

Chairman Petersen asked how much additional money is involved in reporting smaller quantities. Mr. Reiter replied that reporting is really just a telephone call and the economic cost would be the time it would take to make the call. Chairman Petersen asked, if that was all that was involved, why did the Department meet with so much resistance when proposing the rule. Mr. Reiter said that failure to report could subject business to a civil penalty. He said industry was concerned that since the state standard would be lower than the EPA standard, they may forget to report and be subject to penalty. Director Hansen explained that in the statutes and rules there are areas where the Department has the ability to assess civil penalties and does not. He said if a clean up is made appropriately, but the call to report the spill is not made, the Department's concern would not be great. However, he continued, if there was a pattern of nonreporting and nonclean up, then the Department would have concern. He said that cleanup is what the Department was after. It would like to be notified, but notification is a small piece of the incident.

Commissioner Brill asked if a substance was spilled into a river and fish were killed, how would the penalty be determined. Mr. Reiter said the Department would ask the Department of Fish & Wildlife to give it an assessment. They count dead fish and make an assessment of the population in the stream and then estimate what it would cost to restock the stream. Director Hansen said the payment schedule was taken from the Fish & Wildlife rules.

Chairman Petersen noted that the definition of hazardous materials had been broadened to include radioactive materials. Mr. Reiter said the Department of Energy requested inclusion of radioactive so access to cleanup would be available. He said the Department of Energy had no particular interest in setting up a separate clean up fund within the Department of Energy, so requested that clean up be included in DEQ regulations.

Mr. Reiter said the Department of Energy would make the technical judgments on a radioactive spill, but would rely on the DEQ for funding.

Mr. Reiter then outlined for the Commission corrections to typographical errors contained in Appendix 1 to the staff report.

Chairman Petersen said he was inclined to vote for approval of the Director's Recommendation, but asked that the Commission direct staff to investigate the practicality and feasibility of providing some kind of notice to individuals and to report back to the Commission in three months on how many reports the Department is receiving at the low levels. Chairman Petersen said he was concerned about overregulation.

Noting she was also concerned about the individual liability issue, Commissioner Bishop MOVED, and Commissioner Brill seconded, that the Director's Recommendation be approved and instructed the Department to return to the Commission in three months with a report on the practicality and feasibility of providing notice to individual purchasers of designated substances, and on how many reports the Department had received of low level spills. The motion passed unanimously.

AGENDA ITEM H: Proposed Adoption of Amendments to the On-Site Sewage Disposal Rules Concerning Cesspool and Seepage Pit Systems

At the April 25, 1986 meeting, the Commission took final action on the proposal to declare a "Threat to Drinking Water" in Mid-Multnomah County, and issued an order requiring implementation of the Mid-Multnomah County Sewer Implementation Plan, September 1985. With this action, an on-site sewage disposal system rule prohibiting new cesspool and seepage pit systems in Mid-Multnomah County would have become effective. However, the Department proposed and the Commission adopted a temporary rule allowing the Mid-Multnomah County cesspool and seepage pit provisions to remain in effect until October 25, 1986. At that same Commission meeting the Commission also authorized the Department to proceed to public hearing on draft cesspool and seepage pit rules that would allow cesspools as interim systems consistent with implementation of the Mid-Multnomah County Sewer Implementation Plan.

After proper notice, a public hearing was held in Portland on August 4, 1986, with opportunity to submit additional written comment through August 8. The Department also received a letter from the City of Portland on August 20, 1986 commenting on a similar issue raised in testimony from the City of Gresham. After evaluating testimony, staff modified a portion of the proposed amendments as suggested by Gresham and Portland to allow more discretion be exercised in determining when it is appropriate to require the extension of sewers to properties with failing systems versus allowing repair or replacement of systems for use on an interim basis. Proposed rule language, otherwise, has not been modified. If adopted, the benchmark removal rate for cesspools and seepage pits as contained in the Mid-Multnomah County Sewer Implementation Plan would serve as the basis

for allowing continued development while assuring that the sewage load discharged to the groundwater via cesspools and seepage pits is systematically reduced to zero by the year 2005.

At the time the staff report was prepared, staff were advised that it was appropriate to present the proposed rule modifications as a change to the temporary rule filed with the Secretary of State in April. Staff have since been advised that the Commission must be presented with revisions to the pre-existing permanent rule that has been temporarily replaced. Therefore, a new Exhibit "A" has been provided to the Commission displaying language to be deleted and added to the permanent rule, OAR 340-71-335. It should be substituted for Exhibit "A" in the report.

Director's Recommendation:

Based upon the summation in the staff report, it is recommended that the Commission adopt the proposed amendments to the On-Site Sewage Disposal Rules concerning cesspool and seepage pit systems, as presented in Exhibit A to the staff report, in accordance with authority granted under ORS 454.625.

Commissioner Brill asked for a review of the Commission's previous action on this subject. Sherman Olson, of the Department's Water Quality Division, said in 1985 a phase-out date was established and a rule developed to allow development in Mid-Multnomah County until the treat to drinking water issue was resolved. Mr. Olson said the Department believed the proposed rule is consistent with the Sewer Implementation Plan.

Director Hansen said that before the threat to drinking water was declared, the Commission was adopting rules that limited cesspools. As an interim measure, the Department recommended to the Commission not to increase loading, but to have a one-for-one trade off of cesspool removal and installation. A 200 unit bank account was established, and history has shown that more cesspools have been removed than installed.

Mary Halliburton, of the Department's Water Quality Division, said that 500 systems have been removed in the area and only 200 systems installed since 1985. She said the removal rate established in the Sewer Implementation Plan requires a minimum of 3100 removals per year over an 18 year period. Starting in 1987, if more than 3100 per year are removed, then new cesspools can be installed.

Chairman Petersen asked to what extent Mid-Multnomah County was being treated differently than other parts of the state. Director Hansen said that cesspools are not allowed anywhere else. To be treated the same as other parts of the state, no cesspools would be allowed at all, he continued.

Harold Sawyer, of the Department's Director's Office, commented that historically the Commission has allowed interim facilities to assure orderly implementation of a sewer plan, even though the interim facilities were not up to desired standards. Commissioner Brill noted that same approach was used in the Rogue Valley.

It was MOVED by Commissioner Bishop, seconded by Commissioner Brill and passed unanimously that the Director's Recommendation be approved.

AGENDA ITEM I: Request for Extension of the July 1, 1986 Deadline for Providing the Opportunity to Recycle in the Douglas Wasteshed (ORS 459.185(9)).

This agenda item proposes to grant a six month extension of the July 1, 1986 deadline for providing portions of the Opportunity to Recycle in the Douglas Wasteshed. The request is based on the transfer of solid waste authority from the Douglas County Road Department to the Douglas County Engineering Department. The extension, if granted, will allow the Douglas County Engineering Department additional time to plan and implement additional programs to provide the Opportunity to Recycle.

Director's Recommendation:

Based on the findings in the Summation, it is recommended that the Commission grant both Douglas County and the City of Reedsport an extension to January 1, 1987 of the July 1, 1986 deadline for providing the opportunity to recycle and for submitting the Recycling Report to the Department, with one condition, as follows:

If the City of Reedsport or the City of Sutherlin wishes to provide the on-route collection requirement through a method other than at least monthly collection of newspaper, glass, used motor oil, aluminum, tin cans, and corrugated cardboard, the City or other affected persons must submit an application for alternative method by November 1, 1986.

Noting she was not pleased with granting extensions, but understood the circumstance, Commissioner Bishop MOVED the Director's Recommendation be approved. The motion was seconded by Commissioner Brill and passed unanimously.

Director Hansen said the Department was confident that this change in staffing would provide for better recycling in the county.

AGENDA ITEM J: Request for Extension of the July 1, 1986 Deadline  
for Providing the Opportunity to Recycle in Portland,  
Oregon (ORS 459.185(9))

The City of Portland has requested an extension of the July 1, 1986 deadline for providing on-route recycling collection service and recycling notification, education and promotion in most portions of the Portland Wasteshed to January 1987. The Department recommends the Commission approve the request with conditions.

Director's Recommendation:

Based upon the findings in the summation in the staff report, it is recommended that the Commission grant the City of Portland an extension to January 1987 of the July 1, 1986 deadline for providing the opportunity to recycle to persons in Portland, Oregon with the condition that the City must follow the implementation schedule outlined in Attachment III to the staff report.

Commissioner Bishop was disappointed that the City of Portland, which should be a leader in this effort, is dragging its feet and noted it put the Commission in an awkward position. Chairman Petersen said the problem is that Portland got started late, but that was no excuse. Also, Portland has no franchise collection system, and the problem was of a larger magnitude than in other areas of the state. Chairman Petersen said he was sympathetic to Portland's effort to get a handle on the problem.

Commissioner Bishop expressed frustration over the division of responsibility among the City of Portland, Metro and the EQC.

Chairman Petersen said haulers agree that as far as residential pickup is concerned, it should be franchised, however, commercial service is another matter. He asked to what extent was it appropriate for the Commission to comment to the City about its feelings on franchising.

Director Hansen said Metro has come to the Commission and asked that the Commission go on record for Metro to get collection authority as opposed to Portland. This is more than just a franchising issue, he continued. And there are all sorts of problems well beyond the recycling issue. Director Hansen said he did not see any value to not being franchised, but the politics in the City made it unlikely to happen. It was Director Hansen's view that the Commission should get involved in issues they have the ability to influence, and he was not sure that was the case in this matter.

Lorie Parker, of the Department Hazardous and Solid Waste Division, explained that the Department's role is to see that recycling is provided and not to see who provides it. Chairman Petersen said that if the lack of franchise collection in Portland played a significant negative role in being able to manage the whole metropolitan area solid waste problem, then the Commission has an obligation to comment because the Legislature has seen fit to get the Commission and the Department involved in the process. Ms. Parker noted that haulers as a group support franchising, but do not work well together. She said haulers do not understand the trade off is to a highly regulated system and they may not have the customers they do now. Ms. Parker said the City has reviewed this matter and decided it was a hopeless situation.

Commissioner Brill asked if the haulers paid any sort of a permit fee. Ms. Parker said that right now they pay a minimal permit fee of \$25. Chairman Petersen noted that anyone with \$25 and a truck can haul garbage in Portland. Director Hansen said that all other municipalities in the state outside of Portland are franchised. Ms. Parker said that the unincorporated areas of Multnomah County do not even require permits, Clackamas County is very highly controlled and franchised; and Washington County is franchised but not closely watched.

It was MOVED by Commissioner Brill and reluctantly seconded by Commissioner Bishop that the Director's Recommendation be approved. The motion passed unanimously.

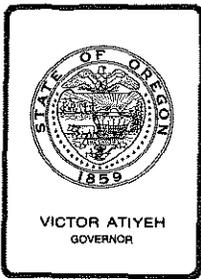
There being no further business, the meeting was adjourned.

After the formal meeting, and during lunch, the Commission heard a report from the Central Region Manager, John Hector, on significant issues in the Region; Lydia Taylor discussed with the Commission the delegation of authority on the bond fund, and it was decided a rule change would be brought before the Commission in October.

Respectfully submitted,



Carol Spletstaszer  
EQC Assistant



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. B, October 24, 1986, EQC Meeting  
August 1986 Program Activity Report

### Discussion

Attached is the August Program Activity Report.

ORS 468.325 provides for Commission approval or disapproval of plans and specifications for construction of air contaminant sources.

Water Quality and Solid Waste facility plans and specifications approvals or disapprovals and issuance, denials, modifications and revocations of air, water and solid waste permits are prescribed by statutes to be functions of the Department, subject to appeal to the Commission.

The purposes of this report are:

1. To provide information to the Commission regarding the status of reported activities and an historical record of project plan and permit actions;
2. To obtain confirming approval from the Commission on actions taken by the Department relative to air contaminant source plans and specifications; and
3. To provide logs of civil penalties assessed and status of DEQ/EQC contested cases.

### Recommendation

It is the Director's recommendation that the Commission take notice of the reported program activities and contested cases, giving confirming approval to the air contaminant source plans and specifications.

Fred Hansen

SChew:y  
MD26  
229-6484  
Attachment

DEPARTMENT OF ENVIRONMENTAL QUALITY

Monthly Activity Report

August, 1986

Table of Contents

	<u>August</u> <u>Page</u>
<u>Air Quality Division</u>	
Summary of Plan Actions . . . . .	1
Listing of Plan Actions Completed . . . . .	2
Summary of Permit Actions . . . . .	3
Listing of Permit Actions Completed . . . . .	4
<u>Water Quality Division</u>	
Summary of Plan Actions . . . . .	1
Listing of Plan Actions Completed . . . . .	7
Summary of Permit Actions . . . . .	11
Listing of Permit Actions Completed . . . . .	12
<u>Hazardous and Solid Waste Management Division</u>	
Summary of Plan Actions . . . . .	1
Summary of Hazardous and Solid Waste Permit Actions . . . . .	15
Listing of Solid Waste Permit Actions Completed . . . . .	16
Listing of Hazardous Waste Disposal Requests . . . . .	17
<u>Noise Control Section</u>	
Summary of Noise Control Actions . . . . .	23
Listing of Noise Control Actions Completed . . . . .	24
<u>Enforcement Section</u>	
Civil Penalties Assessed . . . . .	25
<u>Hearings Section</u>	
Contested Case Log . . . . .	27

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality, Water Quality and  
Hazardous and Solid Waste Divisions  
(Reporting Units)

August 1986  
(Month and Year)

SUMMARY OF PLAN ACTIONS

	Plans Received		Plans Approved		Plans Disapproved		Plans Pending
	Month	FY	Month	FY	Month	FY	
<u>Air</u>							
Direct Sources	6	82	6	76	0	0	11
Small Gasoline Storage Tanks Vapor Controls	-	-	-	-	-	-	-
Total	6	82	6	76	0	0	11
<u>Water</u>							
Municipal	16	43	25	37	0	0	41
Industrial	9	18	14	24	0	0	2
Total	25	61	39	61	0	0	43
<u>Solid Waste</u>							
Gen. Refuse	6	7	1	2	-	-	18
Demolition	-	-	1	2	-	-	0
Industrial	-	7	5	6	-	-	15
Sludge	-	-	-	-	-	-	1
Total	6	14	7	10	0	0	34
<u>Hazardous Wastes</u>							
	-	0	-	0	-	-	-
<u>GRAND TOTAL</u>	37	157	52	147	0	0	88

DEPARTMENT OF ENVIRONMENTAL QUALITY  
 AIR QUALITY DIVISION  
 MONTHLY ACTIVITY REPORT  
 DIRECT SOURCES  
 PLAN ACTIONS COMPLETED

COUNTY	NUMBER	SOURCE	PROCESS DESCRIPTION	DATE OF ACTION	ACTION
JACKSON	160	EUGENE BURRILL LUMBER CO	INSTALL BOILER	09/02/86	APPROVED
DESCHUTES	161	CASCADE FOREST PRODUCTS	INSTALL BAGHOUSE	08/05/86	APPROVED
DOUGLAS	163	ROSEBURG LUMBER CO	REBUILD DRYER	08/18/86	APPROVED
DESCHUTES	167	BEND MILL WORKS CO.	WOOD DUST CONTAINMENT	07/16/86	APPROVED
WASHINGTON	169	PACIFIC CHLORIDE INC.	INSTALL BAGHOUSE	08/20/86	APPROVED
JACKSON	172	MEDPLY	MODIFY CYCLONE	08/22/86	APPROVED
TOTAL NUMBER QUICK LOOK REPORT LINES			6		

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division  
(Reporting Unit)

August 1986  
(Month and Year)

SUMMARY OF AIR PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sources Under Permits	Sources Reqr'g Permits
	<u>Month</u>	<u>FY</u>	<u>Month</u>	<u>FY</u>			
<u>Direct Sources</u>							
New	3	32	2	37	15		
Existing	4	26	1	25	14		
Renewals	6	177	9	192	89		
Modifications	<u>3</u>	<u>36</u>	<u>9</u>	<u>60</u>	<u>11</u>		
Total	16	271	21	314	129	1334	1363
<u>Indirect Sources</u>							
New	1	2	7	8	2		
Existing	0	0	0	0	0		
Renewals	0	0	0	0	0		
Modifications	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>		
Total	2	3	7	9	3	<u>258</u>	<u>260</u>
<u>GRAND TOTALS</u>	18	274	28	323	132	1592	1623

Number of  
Pending Permits

Comments

24	To be reviewed by Northwest Region
24	To be reviewed by Willamette Valley Region
7	To be reviewed by Southwest Region
6	To be reviewed by Central Region
7	To be reviewed by Eastern Region
9	To be reviewed by Program Operations Section
34	Awaiting Public Notice
<u>18</u>	Awaiting end of 30-day Public Notice Period
129	

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
MONTHLY ACTIVITY REPORT  
DIRECT SOURCES  
PERMITS ISSUED

COUNTY	SOURCE	PERMIT NUMBER	APPL. RECEIVED	STATUS	DATE ACHIEVED	TYPE APPL. PSEL
BAKER	BROOKSWOOD PRODUCTS CORP	07/21/86	PERMIT	ISSUED	08/05/86	MOD
BENTON	3-G LUMBER COMPANY	07/18/86	PERMIT	ISSUED	08/05/86	MOD
BENTON	EVANS PROD PERMAGLASS	06/16/86	PERMIT	ISSUED	08/05/86	MOD
CLACKAMAS	PUB PAPER CO-MOLALLA	07/01/86	PERMIT	ISSUED	08/05/86	MOD
COOS	BAY AREA HOSPITAL	01/27/86	PERMIT	ISSUED	08/05/86	RNW
JACKSON	INCLINE CRUSHING, INC.	07/21/86	PERMIT	ISSUED	08/05/86	MOD
LINCOLN	PUBLISHERS PAPER CO	07/01/86	PERMIT	ISSUED	08/05/86	MOD
LINN	FAR WEST FARMERS COOP INC	07/15/86	PERMIT	ISSUED	08/05/86	MOD
MULTNOMAH	ANGELL BROS INC	03/27/86	PERMIT	ISSUED	08/05/86	RNW
MULTNOMAH	COMMONWEALTH ALUM CORP	04/01/86	PERMIT	ISSUED	08/05/86	RNW
TILLAMOOK	PUBLISHERS PAPER CO	07/01/86	PERMIT	ISSUED	08/05/86	MOD
WASHINGTON	UNITED EPITAXIAL TECH.	04/24/86	PERMIT	ISSUED	08/05/86	NEW
YAMHILL	PUBLISHERS PAPER CO	07/01/86	PERMIT	ISSUED	08/05/86	MOD
PORT.SOURCE	R.S. BURCH CO	06/26/86	PERMIT	ISSUED	08/05/86	RNW
PORT.SOURCE	NORTH SANTIAM SAND & GRAV	06/30/86	PERMIT	ISSUED	08/05/86	RNW
PORT.SOURCE	MAIN ROCK PRODUCTS INC	07/03/86	PERMIT	ISSUED	08/05/86	RNW
PORT.SOURCE	BRYAN C RAMBO CRUSHING CO	06/09/86	PERMIT	ISSUED	08/05/86	RNW
DOUGLAS	TRI-CITY READY MIX INC	05/05/86	PERMIT	ISSUED	08/14/86	NEW
MULTNOMAH	GALVANIZERS COMPANY	06/30/86	PERMIT	ISSUED	08/14/86	RNW
MULTNOMAH	OWENS-CORNING FIBERGLAS	02/25/86	PERMIT	ISSUED	08/14/86	RNW
MULTNOMAH	BULLSEYE GLASS CO	06/11/85	PERMIT	ISSUED	08/14/86	EXT

TOTAL NUMBER QUICK LOOK REPORT LINES            21

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Air Quality Division  
(Reporting Unit)

August 1986  
(Month and Year)

PERMIT ACTIONS COMPLETED

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

Indirect Sources

Multnomah	NE 257th-Sandy Blvd. to Hensley Rd. File No. 26-8603	08/14/86	Final Permit Issued
Washington	Cornelius Pass Rd. Intch. File No. 34-8604	08/18/86	Final Permit Issued
Washington	SW Murray Blvd-Sunset Hwy to SW Jenkins Rd. File NO. 34-8605	08/18/86	Final Permit Issued
Marion	Mission St-12th St. to 24th St. File No. 24-8606	08/18/86	Final Permit Issued
Washington	Sterling Pointe- Phase 1, 478 Spaces, File No. 34-8607	08/18/86	Final Permit Issued
Clackamas	Costco-Johnson Rd. 627 Spaces, File No. 03-8608	08/13/86	Final Permit Issued
Washington	Costco-Tualatin, 635 Spaces, File No. 34-8609	08/19/86	Final Permit Issued

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DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality  
(Reporting Unit)

August 1986  
(Month and Year)

PLAN ACTIONS COMPLETED - 39

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

MUNICIPAL WASTE SOURCES - 25

Coos	Hauser Trailer Village Recirculation filter/ on-site disposal 6,800 gpd	8-25-86	Preliminary Comments To Designer
Clatsop	The Logger Recirculation filter/ on-site disposal 2,000 gpd	8-21-86	Preliminary Comments to Designer
Clackamas	Melridge Inc. Conventional sand filter, disposal trenches, capping fill 4,000 gpd	8-11-86	Final Comments to Region
Deschutes	Mt. Bachelor, Sunrise Lodge Additions to disposal fields	9-4-86	Comments to Central Region Office
Douglas	Gardner SD Mound Street replacement 4900 gpd	9-5-86	Provisional Approval
Curry	Port Orford Deady Street extension	9-4-86	Provisional Approval
Jackson	Rogue River South sides of the River Project	8-28-86	Provisional Approval
Clackamas	Tri-City Service District - C3 WPC Landscaping - C4 Sludge and grit trucks - C5 Computer equipment - C6 Misc. tools and plant equipment - C7 Flow monitoring, sampling & TV equipment	8-18-86	Provisional Approval
Clackamas	Wilsonville Commerce Center South (Koll Project)	8-26-86	Provisional Approval

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality  
(Reporting Unit)

August 1986  
(Month and Year)

PLAN ACTIONS COMPLETED - 39

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

MUNICIPAL WASTE SOURCES (Continued)

Clackamas	Lake Oswego - Centerpointe (Lot 10) (LDS) - Westlake (Phase 1-B-2) - Old River Woods - Leonard Street (W.O. 8108)	8-26-86	Provisional Approval	
Klamath	Klamath Falls First addition to Harbor Isles	8-22-86	Provisional Approval	
Douglas	RUSA - Airport Road - Hopper Street extension - Warwood Valley, first addition	8-22-86	Provisional Approval	
Douglas	Green Sanitary District - Edgar Emery Community Commercial - Rollings Hills Connection Sewer - Green Oaks Park Shopping Center	8-22-86	Provisional Approval	
Douglas	Myrtle Creek Sewer Main Extension #1, 1986	8-26-86	Provisional Approval	

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Water Quality Division

(Reporting Unit)

August 1986

(Month and Year)

PLAN ACTIONS COMPLETED - 39

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

INDUSTRIAL WASTE SOURCES 14

Clackamas	Portland General Electric Oil Spill Containment Fac. Bull Run Substation, Sandy	08-05-86	Approved
Linn	Snow Peak Pond Groundwater Monitoring Wells	08-06-86	Approved
Tillamook	Don Aufdermauer Dairy Manure Control system Tillamook	08-06-86	Approved
Tillamook	Dan Landolt Manure Control System Tillamook	08-06-86	Approved
Tillamook	Gary Oldenkamp Manure Control Facility Tillamook	08-06-86	Approved
Tillamook	Harold Boquist Manure Control Facility Tillamook	08-06-86	Approved
Linn	Shedd Dairy Manure Control Facility Shedd	08-11-86	Approved
Marion	Portland General Electric Oil Spill Containment Fac. Salem Substation, Salem	08-15-86	Approved
Jefferson	Portland General Electric Oil Spill Containment Fac. Pelton Dam, Madras	08-15-86	Approved

PLAN ACTIONS COMPLETED - 39

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

INDUSTRIAL WASTE SOURCES (Continued)

Multnomah	Portland General Electric Oil Spill Containment Fac. Rockwood Substation, Portland	08-15-86	Approved
Marion	Portland General Electric Oil Spill Containment Fac. Mt. Angel	08-15-86	Approved
Benton	Hewlett Packard Concrete Tank Farm Corvallis	08-15-86	Approved
Washington	Stimson Lumber Company Sapstain Control System Forest Grove	08-15-86	Approved
Columbia	Stimson Lumber Company Sapstain Control System Clatskanie	08-15-86	Approved

SUMMARY OF ACTIONS TAKEN  
ON WATER PERMIT APPLICATIONS IN AUG 86

9 SEP 86

SOURCE CATEGORY & PERMIT SUBTYPE	NUMBER OF APPLICATIONS FILED						NUMBER OF PERMITS ISSUED						APPLICATIONS PENDING PERMIT ISSUANCE (1)			CURRENT TOTAL OF ACTIVE PERMITS				
	MONTH			FISCAL YEAR			MONTH			FISCAL YEAR			NPDES	WPCF	GEN	NPDES	WPCF	GEN		
	NPDES	WPCF	GEN	NPDES	WPCF	GEN	NPDES	WPCF	GEN	NPDES	WPCF	GEN								
DOMESTIC																				
NEW	0	4	0	0	6	0	0	0	0	0	0	0	5	14	0					
RW	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0					
RWO	2	0	0	14	2	0	1	1	0	2	4	0	46	19	0					
MW	0	0	0	0	0	0	2	0	0	2	0	0	2	0	0					
MWO	0	1	0	0	1	0	1	0	0	1	0	0	4	1	0					
TOTAL	2	5	0	14	9	0	4	1	0	5	4	0	58	35	0	235	163	29		
INDUSTRIAL																				
NEW	0	1	7	0	2	14	0	1	9	0	2	14	5	8	5					
RW	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0					
RWO	3	0	0	10	1	0	5	1	0	5	3	0	22	9	0					
MW	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0					
MWO	0	0	0	0	0	0	2	0	0	3	0	0	4	1	0					
TOTAL	3	1	7	10	3	14	7	2	9	8	5	14	33	18	5	173	137	353		
AGRICULTURAL																				
NEW	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0					
RW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
RWO	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0					
MW	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
MWO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
TOTAL	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	2	11	57		
GRAND TOTAL	5	7	7	24	13	14	11	3	9	13	9	14	91	55	5	410	311	439		

1) DOES NOT INCLUDE APPLICATIONS WITHDRAWN BY THE APPLICANT, APPLICATIONS WHERE IT WAS DETERMINED A PERMIT WAS NOT NEEDED, AND APPLICATIONS WHERE THE PERMIT WAS DENIED BY DEQ.

IT DOES INCLUDE APPLICATIONS PENDING FROM PREVIOUS MONTHS AND THOSE FILED AFTER 31-AUG-86.

NEW - NEW APPLICATION  
 RW - RENEWAL WITH EFFLUENT LIMIT CHANGES  
 RWO - RENEWAL WITHOUT EFFLUENT LIMIT CHANGES  
 MW - MODIFICATION WITH INCREASE IN EFFLUENT LIMITS  
 MWO - MODIFICATION WITHOUT INCREASE IN EFFLUENT LIMITS

CAT	PERMIT NUMBER	SUB-TYPE	SOURCE ID	LEGAL NAME	CITY	COUNTY/REGION	DATE ISSUED	DATE EXPIRES
<u>General: Placer Mining</u>								
IND	600	GEN06	NEW	100155	COYOTE VENTURES, INC.	JOSEPHINE/SWR	26-AUG-86	31-JUL-91
IND	600	GEN06	NEW	100163	KJORLIEN, GARY L.	JOSEPHINE/SWR	28-AUG-86	31-JUL-91
<u>General: Suction Dredges</u>								
IND	700	GEN07	NEW	100164	BRUNELL, SYDNEY	JACKSON/SWR	28-AUG-86	31-JUL-91
IND	700	GEN07	NEW	100162	DECAMP, JOE D.	JACKSON/SWR	28-AUG-86	31-JUL-91
IND	700	GEN07	NEW	100161	HULFORD, MERL & HULFORD, TOM	CURRY/SWR	28-AUG-86	31-JUL-91
IND	700	GEN07	NEW	100157	BAYER, TED	JACKSON/SWR	28-AUG-86	31-JUL-91
IND	700	GEN07	NEW	100158	ALLEN, LARRY	HOOD RIVER/CR	28-AUG-86	31-JUL-91
IND	700	GEN07	NEW	100159	PARKE, GUY N., & PARKE, GUY T.	JACKSON/SWR	28-AUG-86	31-JUL-91
IND	700	GEN07	NEW	100156	SMITH, KENNETH A.	JACKSON/SWR	28-AUG-86	31-JUL-91
<u>NPDES</u>								
IND	100105	NPDES	MWO	84820	STAYTON CANNING COMPANY, COOPERATIVE	STAYTON	MARION/WVR	07-AUG-86 31-MAY-90
DOM	3881	NPDES	MWO	70725	PORTLAND, CITY OF	PORTLAND	MULTNOMAH/NWR	09-AUG-86 31-JUL-89
IND	100216	NPDES	RWO	87487	TAYLOR LUMBER & TREATING, INC.	SHERIDAN	YAMHILL/WVR	12-AUG-86 30-JUN-91
IND	3542	NPDES	MWO	37101	HARRIS PINE MILLS	PENDLETON	UMATILLA/ER	19-AUG-86 31-MAY-87
DOM	100018	NPDES	MW	66063	LARSON, ROGER L.	TILLAMOOK	TILLAMOOK/NWR	19-AUG-86 30-JUN-89

12

CAT	PERMIT NUMBER	TYPE	SUB-TYPE	SOURCE ID	LEGAL NAME	CITY	COUNTY/REGION	DATE ISSUED	DATE EXPIRES
DOM	100018	NPDES	MW	66063	LARSON, ROGER L.	TILLAMOOK	TILLAMOOK/NWR	19-AUG-86	30-JUN-89
IND	100218	NPDES	RWO	97246	WILLAMETTE POULTRY CO.	CRESWELL	LANE/WVR	19-AUG-86	30-JUN-91
DOM	100219	NPDES	RWO	90752	UNIFIED SEWERAGE AGENCY OF WASHINGTON COUNTY	HILLSBORO	WASHINGTON/NWR	19-AUG-86	30-APR-91
IND	100221	NPDES	RWO	41940	INTEL CORPORATION	ALOHA	WASHINGTON/NWR	19-AUG-86	30-JUN-91
IND	100222	NPDES	RWO	97057	WILLAMETTE INDUSTRIES, INC.	DALLAS	POLK/WVR	19-AUG-86	31-MAY-91
IND	100223	NPDES	RWO	35145	GREGORY FOREST PRODUCTS, INC.	GLENDALE	DOUGLAS/SWR	28-AUG-86	30-JUN-91
<hr/>									
WPCF									
<hr/>									
IND	3346	WPCF	NEW	48780	LAMB-WESTON, INC.	HERMISTON	UMATILLA/ER	12-AUG-86	31-MAY-86
IND	100217	WPCF	RWO	48780	LAMB-WESTON, INC.	HERMISTON	UMATILLA/ER	12-AUG-86	31-JUL-91
DOM	100220	WPCF	RWO	64710	OREGON STATE DEPARTMENT OF TRANSPORTATION	BOARDMAN	MORROW/ER	19-AUG-86	31-JUL-91

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Hazardous and Solid Waste Division  
(Reporting Unit)

August 1986  
(Month and Year)

SUMMARY OF SOLID AND HAZARDOUS WASTE PERMIT ACTIONS

	Permit Actions Received		Permit Actions Completed		Permit Actions Pending	Sites Under Permits	Sites Reqr'g Permits
	Month	FY	Month	FY			
<u>General Refuse</u>							
New	-	2	-	-	2		
Closures	-	-	-	1	3		
Renewals	-	1	-	7	15		
Modifications	-	-	-	1	-		
Total	0	3	0	9	20	182	182
<u>Demolition</u>							
New	-	1	-	1	-		
Closures	-	-	-	-	-		
Renewals	-	-	-	-	-		
Modifications	-	-	-	1	-		
Total	0	1	0	2	1	13	13
<u>Industrial</u>							
New	-	4	1	4	10		
Closures	1	2	-	-	2		
Renewals	-	1	1	2	10		
Modifications	-	-	-	-	-		
Total	1	7	2	6	22	103	103
<u>Sludge Disposal</u>							
New	-	-	-	-	2		
Closures	-	-	-	-	-		
Renewals	-	-	-	-	-		
Modifications	-	-	-	1	-		
Total	0	1	0	1	2	16	16
Total Solid Waste	1	12	2	18	45		
<u>Hazardous Waste</u>							
New							
Authorizations	52	52	52	52	-		
Renewals	-	-	-	-	-		
Modifications	-	-	-	-	-		
Total	52	52	52	52	-	14	19

DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Hazardous and Solid Waste Division  
(Reporting Unit)

August 1986  
(Month and Year)

PERMIT ACTIONS COMPLETED

* County	* Name of Source/Project * /Site and Type of Same	* Date of * Action	* Action	*
Marion	John C. Taylor Wood Waste New industrial landfill	8/1/86	Letter authorization issued	*
Linn	Western Kraft Lime storage site Existing industrial landfill	8/11/86	Withdrawn	*

DATE	WASTE TYPE	SOURCE	DISPOSE NOW	DISPOSE ANNUALLY
11-AUG-86	WASTE FORMALDEHYDE SOLUTION	RAILROADS, LINE-HAUL OPERATING	0	3.69 CU YD
25-AUG-86	PCB TRANSFORMER DRAINED AND FLUSHED	OTHER GOVERNMENT AGENCY	0	25 CU YD
25-AUG-86	PCB CONTAMINATED SOIL	OTHER GOVERNMENT AGENCY	0	4 CU YD
25-AUG-86	PCB OIL	OTHER GOVERNMENT AGENCY	0	1.08 CU YD

## 4 Request(s) approved for generators in Alaska

06-AUG-86	PESTICIDE LAB PACK	COLLEGES & UNIVERSITIES	0	1.33 CU YD
06-AUG-86	SULFUR LAB PACK	COLLEGES & UNIVERSITIES	0	1.33 CU YD
06-AUG-86	CALCIUM OXIDE LAB PACK	COLLEGES & UNIVERSITIES	0	1.33 CU YD
06-AUG-86	PESTICIDE LAB PACK	COLLEGES & UNIVERSITIES	0	27 CU YD
06-AUG-86	FLAMMABLE LIQUID LAB PACK	COLLEGES & UNIVERSITIES	0	3 CU YD

## 5 Request(s) approved for generators in Idaho

06-AUG-86	WASTE FLAMMABLE SOLIDS	ENV. SERVICES CONTRACTORS	0	0.27 CU YD
06-AUG-86	LEACHATE	HAZARDOUS WASTE DISPOSAL SITE	0	0.49 CU YD
07-AUG-86	PCB TRANSFORMERS DRAINED AND FLUSHED	ELECTRIC SERVICES	0	100 CU YD
07-AUG-86	LAB PACK	ELEMENTARY & SECONDARY SCHOOLS	0	0.53 CU YD
07-AUG-86	LAB PACK	ELEMENTARY & SECONDARY SCHOOLS	0	0.53 CU YD
07-AUG-86	LAB PACK	ELEMENTARY & SECONDARY SCHOOLS	0	0.53 CU YD
07-AUG-86	LAB PACK	ELEMENTARY & SECONDARY SCHOOLS	0	0.53 CU YD

DATE	WASTE TYPE	SOURCE	DISPOSE NOW	DISPOSE ANNUALLY
07-AUG-86	LAB PACK	ELEMENTARY & SECONDARY SCHOOLS	0	0.53 CU YD
07-AUG-86	LAB PACK	ELEMENTARY & SECONDARY SCHOOLS	0	0.53 CU YD
07-AUG-86	LAB PACK	ELEMENTARY & SECONDARY SCHOOLS	0	0.53 CU YD
07-AUG-86	LAB PACK CONTAINING IGNITABLE CHEMICALS	ELEMENTARY & SECONDARY SCHOOLS	0	0.53 CU YD
11-AUG-86	SPILL CLEAN UP CONTAINING MIXED PESTICIDES	VETERANS AFFAIRS	0	2.21 CU YD
11-AUG-86	ACTIVATED CARBON	OTHER ELECTRONIC COMPONENTS	0	1.35 CU YD
11-AUG-86	ELECTROLESS COPPER FILTERS	OTHER ELECTRONIC COMPONENTS	0	1.07 CU YD
11-AUG-86	TIN FILTERS	OTHER ELECTRONIC COMPONENTS	0	1.07 CU YD
11-AUG-86	LAB PACK	OTHER GOVERNMENT AGENCY	0	0.53 CU YD
12-AUG-86	STEEL STORAGE TANKS	NATURAL GAS TRANSMISSION	0	23 CU YD
21-AUG-86	PCB	RAILROAD EQUIPMENT	0	0.27 CU YD
21-AUG-86	PCB LIGHT BALLAST	SEMICONDUCTORS	0	1.08 CU YD
21-AUG-86	PCB LIGHT BALLAST	SEMICONDUCTORS	0	1.08 CU YD
21-AUG-86	PCB LIGHT BALLAST	SEMICONDUCTORS	0	1.08 CU YD
25-AUG-86	PCB CONTAMINATED SOLIDS	MOTORS AND GENERATORS	0	0.27 CU YD

22 Request(s) approved for generators in Oregon

18

29-AUG-86	CORROSIVE ACID LAB PACK	OTHER CHEMICAL PREPARATIONS	0	2.7 CU YD
29-AUG-86	POISON B LAB PACK	OTHER CHEMICAL PREPARATIONS	0	2.7 CU YD

DATE	WASTE TYPE	SOURCE	DISPOSE NOW	DISPOSE ANNUALLY
29-AUG-86	FLAMMABLE LIQUID LAB PACK	OTHER CHEMICAL PREPARATIONS	0	2.7 CU YD
29-AUG-86	FLAMMABLE LIQUID LAB PACK	OTHER CHEMICAL PREPARATIONS	0	2.7 CU YD
29-AUG-86	ORM-E LAB PACK	OTHER CHEMICAL PREPARATIONS	0	2.7 CU YD
29-AUG-86	LAB PACK / OXIDIZERS	OTHER CHEMICAL PREPARATIONS	0	2.7 CU YD
29-AUG-86	LAB PACK / CORROSIVE	OTHER CHEMICAL PREPARATIONS	0	2.7 CU YD
29-AUG-86	ORM-A LAB PACK	OTHER CHEMICAL PREPARATIONS	0	2.7 CU YD
29-AUG-86	ORM-B LAB PACK	OTHER CHEMICAL PREPARATIONS	0	2.7 CU YD

9 Request(s) approved for generators in Utah

01-AUG-86	PCB CONTAMINATED LIGHT BALLAST	RCRA SPILL CLEANUP	0	13.5 CU YD
04-AUG-86	ORGANOPHOSPHORUS PESTICIDE	RCRA SPILL CLEANUP	0	0.27 CUBIC YARDS
04-AUG-86	PCB CONTAMINATED SOIL	CEMENT, HYDRAULIC (PORTLAND)	0	8.1 CU YD
04-AUG-86	ASBESTOS	ELEMENTARY & SECONDARY SCHOOLS	0	2 CU YD
06-AUG-86	LEAD BEARING GLASS WASTE	PRESSED & BLOWN GLASS	0	14.85 CU YD
06-AUG-86	SCRAP LEAD GLASS	PRESSED & BLOWN GLASS	0	5.4 CU YD
06-AUG-86	SOLIDIFIED RESIN WASTE	HAZARDOUS WASTE DISPOSAL SITE	0	20 CU YD
06-AUG-86	STABILIZED RESIDUE FROM FUEL TANK REMOVAL	INDUSTRIAL INORGANIC CHEMICALS	0	2.16 CU YD
06-AUG-86	PCB CONTAMINATED ASPHALT, DIRT AND DEBRIS	ELECTRIC SERVICES	0	80 CU YD

DATE	WASTE TYPE	SOURCE	DISPOSE NOW	DISPOSE ANNUALLY
06-AUG-86	SOLIDIFIED WASTE WOOD PRESERVATIVE CONTAINING PENTACHLOROPHENOL	HAZARDOUS WASTE DISPOSAL SITE	0	29 CU YD
06-AUG-86	WASTE PESTICIDE	RAILROADS, LINE-HAUL OPERATING	0	27 CU YD
07-AUG-86	ABSORBENT MATERIAL CONTAINING PHENOL COMPOUNDS	RCRA SPILL CLEANUP	0	0.54 CU YD
07-AUG-86	WOOD TREATMENT SLUDGE WITH PENTACHLOROPHENOL	WOOD PRESERVING	0	16.20 CU YD
11-AUG-86	LEAD BEARING COMPACTOR WASTE	SIC UNKNOWN	0	14.67 CU YD
11-AUG-86	HOUSEHOLD WASTES	OTHER GOVERNMENT AGENCY	0	0.80 CU YD
11-AUG-86	ABSORBENT MATERIAL CONTANING LABORATORY SOLVENTS	RCRA SPILL CLEANUP	0	4.00 CU YD
11-AUG-86	PCB CONTAMINATED ELECTRIC CABLES / RAGS	DEPARTMENT OF DEFENSE	0	2.67 CU YD
11-AUG-86	WASTE PESTICIDE MIXTURE	RAILROADS, LINE-HAUL OPERATING	0	13.87 CU YD
21-AUG-86	BRINE SLUDGE	ALKALIES & CHLORINE	0	100 CU YD
21-AUG-86	WASTE PESTICIDE MIXTURE	RAILROADS, LINE-HAUL OPERATING	0	6.67 CU YD
21-AUG-86	WASTE PESTICIDE MIXTURE	RAILROADS, LINE-HAUL OPERATING	0	1.07 CU YD
21-AUG-86	KALTEK 500 SERIES -- A PARTICLE BOARD MANUFACTURING CHEMICAL CONTAINING SILICA	PARTICLE BOARD	0	13.72 CU YD
21-AUG-86	CLARIFIER SLUDGE FROM WATER TREATMENT	ENV. SERVICES CONTRACTORS	0	121.28 CU YD
29-AUG-86	PCB CONTAMINATED SOLIDS	NON-RCRA SPILL CLEANUP	0	300 CU YD
29-AUG-86	PCB CONTAMINATED SOLIDS	NON-RCRA SPILL CLEANUP	0	300 CU YD

25 Request(s) approved for generators in Washington

21-AUG-86	LAB PACK	LAND & WILDLIFE CONSERVATION	0	0.54 CU YD
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1 Request(s) approved for generators in Wyoming

DATE	WASTE TYPE	SOURCE	DISPOSE NOW	DISPOSE ANNUALLY
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66 Requests granted - Grand Total



DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY ACTIVITY REPORT

Noise Control Program  
(Reporting Unit)

August, 1986  
(Month and Year)

SUMMARY OF NOISE CONTROL ACTIONS

Source Category	New Actions Initiated		Final Actions Completed		Actions Pending	
	<u>Mo</u>	<u>FY</u>	<u>Mo</u>	<u>FY</u>	<u>Mo</u>	<u>Last Mo</u>
Industrial/ Commercial	14	32	12	20	217	215
Airports			0	2	1	1

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## MONTHLY ACTIVITY REPORT

Noise Control Program		August, 1986	
(Reporting Unit)		(Month and Year)	
<u>FINAL NOISE CONTROL ACTIONS COMPLETED</u>			
<u>County</u>	<u>Name of Source and Location</u>	<u>Date</u>	<u>Action</u>
Clackamas	Alton Maddox Tile & Roofing Company Oregon City	08/86	In Compliance
Clackamas	Boltz Trucking Company Milwaukie	08/86	Source Closed
Clackamas	Gospel Center Portland	08/86	In Compliance
Multnomah	Digger O'Dell's Portland	08/86	In Compliance
Multnomah	Eastport Plaza Portland	08/86	In Compliance
Multnomah	Meadowland Park Center Portland	08/86	In Compliance
Multnomah	Mervyn's Store, Eastport Plaza Portland	08/86	In Compliance
Multnomah	Oaks Amusement Park Portland	08/86	In Compliance
Washington	Search Band Beaverton	08/86	Source Relocated
Washington	Wendy's Restaurant Tigard	08/86	In Compliance
Coos	Coos Head Timber Company Coos Bay	08/86	In Compliance
Jefferson	S. Baker Woodcutting Madras	08/86	Source Relocated

CIVIL PENALTY ASSESSMENTS  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
1986

CIVIL PENALTIES ASSESSED DURING MONTH OF AUGUST, 1986:

<u>Name and Location of Violation</u>	<u>Case No. &amp; Type of Violation</u>	<u>Date Issued</u>	<u>Amount</u>	<u>Status</u>
City of Bandon Bandon, Oregon	WQ-SWR-86-82 Intentional discharge of sludge mixed with waste solids into the Coquille estuary.	8/14/86	\$7,500	Penalty mitiga- tion request received on 9/5/86.
Mallorie's Dairy, Inc. Silverton, Oregon	WQ-WVR-86-91 Negligent discharge of animal waste into the Pudding River.	8/19/86	\$2,000	Hearing request and answer filed 9/8/86.
Mallorie's Dairy, Inc. Silverton, Oregon	AQOB-WVR-86-92 Intentional open burning of commercial waste and prohibited materials.	8/19/86	\$1,050	Hearing request and answer filed 9/8/86.
Magna Corp., Inc. Gresham, Oregon	AQOB-NWR-86-93 Open burned demolition debris.	8/25/86	\$500	Hearing request and answer filed 9/10/86.

VAK:b  
GB6007



August, 1986  
DEQ/EQC Contested Case Log

<u>ACTIONS</u>	<u>LAST MONTH</u>	<u>PRESENT</u>
Preliminary Issues	0	0
Discovery	0	0
Settlement Action	2	4
Hearing to be scheduled	0	0
Department reviewing penalty	1	1
Hearing scheduled	4	1
HO's Decision Due	0	0
Briefing	0	0
Inactive	<u>4</u>	<u>4</u>
SUBTOTAL of cases before hearings officer.	10	10
HO's Decision Out/Option for EQC Appeal	5	0
Appealed to EQC	1	2
EQC Appeal Complete/Option for Court Review	1	0
Court Review Option Taken	1	1
Case Closed	<u>0</u>	<u>5</u>
 TOTAL Cases	 18	 18

15-AQ-NWR-81-178      15th Hearing Section case in 1981 involving Air Quality Division violation in Northwest Region jurisdiction in 1981; 178th enforcement action in the Department in 1981.

\$      Civil Penalty Amount  
ACDP      Air Contaminant Discharge Permit  
AGL      Attorney General 1  
AQ      Air Quality Division  
AQOB      Air Quality, Open Burning  
CR      Central Region  
DEC Date      Date of either a proposed decision of hearings officer or a decision by Commission  
ER      Eastern Region  
FB      Field Burning  
Hrng Rfrl      Date when Enforcement Section requests Hearing Section schedule a hearing  
Hrngs      Hearings Section  
NP      Noise Pollution  
NPDES      National Pollutant Discharge Elimination System wastewater discharge permit.  
NWR      Northwest Region  
OSS      On-Site Sewage Section  
P      Litigation over permit or its conditions  
Prtys      All parties involved  
Rem Order      Remedial Action Order  
Resp Code      Source of next expected activity in case  
SS      Subsurface Sewage (now OSS)  
SW      Solid Waste Division  
SWR      Southwest Region  
T      Litigation over tax credit matter  
Transcr      Transcript being made of case  
Underlining      New status or new case since last month's contested case log  
WQ      Water Quality Division  
WVR      Willamette Valley Region

August 1986

DEQ/EQC Contested Case Log

Pet/Resp Name	Hrng Rqst	Hrng Rfrl	Hrng Date	Resp Code	Case Type & No.	Case Status
WAH CHANG	04/78	04/78		Prtys	16-P-WQ-WVR-78-2849-J NPDES Permit Modification	Current permit in force. Hearing deferred.
WAH CHANG	04/78	04/78		Prtys	03-P-WQ-WVR-78-2012-J NPDES Permit Modification	Current permit in force. Hearing deferred.
HAYWORTH FARMS, INC., and HAYWORTH, John W.	01/14/83	02/28/83	04/04/84	Prtys	50-AQ-FB-82-09 FB Civil Penalty of \$1,000	Appealed to Court of Appeals.
McINNIS ENT. ENTERPRISES, LTD., et al.	06/17/83	06/21/83	08/11/86	Prtys	52-SS/SW-NWR-83-47 SS/SW Civil Penalty of \$500	<u>Scheduled hearing postponed for settlement.</u>
McINNIS ENTERPRISES, LTD., et al.	09/20/83	09/22/83		Prtys	56-WQ-NWR-83-79 WQ Civil Penalty of \$14,500	Hearing deferred.
McINNIS ENTERPRISES, LTD., et al.	10/25/83	10/26/83		Prtys	59-SS-NWR-83-33290P-5 SS license revocation	Hearing deferred.
CLEARWATER-IND-7 Inc.	10/11/83	10/17/83	01/13/86	Hrge	58-SS-NWR-83-82 SS-Civil-Penalty of-\$1000	<u>Penalty affirmed. No appeal to EQC. Case closed.</u>
CLEARWATER-IND-7 Inc.	01/13/84	01/18/84	01/13/86	Hrge	02-SS-NWR-83-103 SS-Civil-Penalty of-\$500	<u>Penalty affirmed. No appeal to EQC. Case closed.</u>

August 1986

DEQ/EQC Contested Case Log

Pet/Resp Name	Hrng Rqst	Hrng Rfrl	Hrng Date	Resp Code	Case Type & No.	Case Status
CLEARWATER Industries, Inc.	10/11/84	10/11/84	01/13/86	Hrng	24-SS-NWR-84-P Sewage-Disposal Service-License Denial	<u>No appeal from order of dismissal. Case closed.</u>
FUNRUE, Amos	03/15/85	03/19/85	06/20/85	Dept	05-AQ-FB-84-141 Civil Penalty of \$500	EQC affirmed \$500 penalty. Department to draft final order to reflect EQC action.
DANT & RUSSELL, INC.	05/31/85	05/31/85	03/21/86	Prtys	15-HW-NWR-85-60 Hazardous waste disposal Civil Penalty of \$2,500	Settlement action.
MERIT OIL & REFINING CO.		07/24/85	05/13/86	Prtys	20-WQ-NWR-85-61 WQ Civil Penalty of \$1,200	Settlement action.
BRAZIER FOREST PRODUCTS	11/22/85	12/12/85	02/10/86	Dept	23-HSW-85 Declaratory Ruling	<u>EQC issued declaratory ruling 7/25/86. DEQ to draft fund order to reflect EQC action.</u>
NULF, DOUG	01/10/86	01/13/86	05/05/86	Dept	01-AQFB-85-02 \$500 Civil Penalty	<u>Draft decision distributed to DEQ for penalty review.</u>
DOERFLER, RICHARD	01/24/86	01/31/86	04/11/86	Prtys	02-AQFB-85-03 \$300-Civil-Penalty	<u>Penalty affirmed. No appeal to EQC. Case closed.</u>

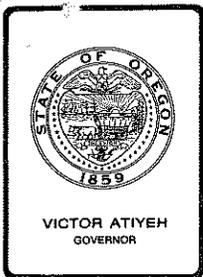
29

August 1986

DEQ/EQC Contested Case Log

Pet/Resp Name	Hrng Rqst	Hrng Rfrl	Hrng Date	Resp Code	Case Type & No.	Case Status
DECKER, MARVIN	06/02/86	06/03/86	09/02/86	Prtys	04-AQOB-NWR-86-54 \$3,000 Civil Penalty	<u>Scheduled hearing postponed for settlement action.</u>
VANDERVELDE, ROY	06/06/86	06/10/86	<u>09/22/86</u>	Prtys	05-WQ-WVR-86-39 \$5,500 Civil Penalty	Hearing scheduled.
LUTTRELL FARMS, INC.	06/10/86	06/12/86	08/21/86	Prtys	06-AQOB-NWR-86-55 \$3,000 Civil Penalty	<u>Scheduled hearing postponed. for settlement action.</u>

30



## Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item C, October 24, 1986, EQC Meeting

### TAX CREDIT APPLICATIONS

#### Director's Recommendations

It is recommended that the Commission take the following action:

1. Issue tax credit certificates for pollution control facilities:

<u>Appl. No.</u>	<u>Applicant</u>	<u>Facility</u>
T-1757	Corvallis Kennels	Enclosed Animal Kennel
T-1779	Gamble Farms	Chicken manure storage
T-1791	Tektronix, Inc.	New paint line in Building 16
T-1834	Boise Cascade Corp.	Air cooled heat exchange, oil skimmer and bark removal system
T-1835	Graphic Arts Center, Inc.	Vapor incinerator

2. Revoke certificates issued to Publishers Paper Co. and re-issue to Smurfit Newsprint Corporation. A listing of the certificates is attached with letters from the companies.
3. Revoke certificates issued to Champion International and re-issue to Gold Beach Timber Products. (letters attached with certificates)

Fred Hansen

S. Chew:y  
(503) 229-6484  
October 1, 1986  
MY3416

EQC Agenda Item C  
October 24, 1986  
Page 2

Proposed October 24, 1986 Totals:

Air Quality	\$ 454,213.00
Water Quality	155,023.49
Hazardous/Solid Waste	49,308.00
Noise	<u>50,692.00</u>
	\$ 709,236.49

1986 Calendar Year Totals for Tax Credits Certified at this time:

Air Quality	\$3,247,086.01
Water Quality	3,493,443.61
Hazardous/Solid Waste	1,250,534.88
Noise	<u>18,387.00</u>
	\$8,009,451.50

SChew  
229-6484  
29 Sept 86

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Corvallis Kennels  
720 SW Wake Robin Avenue  
Corvallis, OR 97333

The applicant owns and operates an animal housing facility (kennel) south of Corvallis, Oregon.

Application was made for tax credit for a noise control facility.

2. Description of Facility

The facility described in this application is a 2,172 square foot, enclosed, environmentally controlled, animal kennel recently built at 720 Southwest Wake Robin Avenue near Corvallis, Oregon. It replaced a previously existing open-air kennel facility at the same location which was determined to be operating in violation of Oregon's noise pollution standards.

Claimed Facility Cost: \$63,000.00  
(Accountant's Certification was provided).

3. Procedural Requirements

The facility was completed after December 31, 1983, so it is governed by ORS 468.150 through 468.190 in effect on January 1, 1984, and by OAR 340-16-015 (effective July 13, 1984; amended March 21, 1985).

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed March 14, 1984, more than 30 days before initiation of construction. Construction commenced on or about July 17, 1984.
- b. The request for preliminary certification was approved before application for final certification was made.

- c. Construction of the facility was substantially completed on or about November 21, 1984, and the application for final certification was found to be complete on August 27, 1985, within 2 years of substantial completion of the facility.

#### 4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department to reduce noise pollution. The requirement is to comply with OAR 340-35-035, which requires such sources not to exceed established decibel limits.

This control is accomplished by redesign to eliminate the noise pollution.

After considering the options of investing substantial capital into an existing antiquated facility to obtain compliance, or constructing a new, noise-controlled facility, the applicant opted for the latter alternative. The new facility, which can accommodate up to 50 animals, has eliminated the need for outside housing of animals, which previously was a focal point of acrimonious conflict between the source and nearby residential properties and the cause for frequent noise violations. Staff's final tax credit appraisal has confirmed that the previously existing noise violations have been satisfactorily resolved.

- b. Analysis of Eligible Costs

The gross cost incurred for the construction of the new facility totaled \$63,000, \$50,692 being eligible for noise pollution control tax credits. The adjusted allocable cost of \$50,692 represents costs incurred by the applicant to meet requirements imposed by the Department. Non-related costs (\$12,308) a cattery, feed storage room, and isolation ward in addition to other miscellaneous expenses not relevant to noise control were excluded. Allocable costs as determined by using Return on Investment (ROI) is 69 percent of \$50,692, or \$34,977.

#### 5. Summation

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

- b. The facility is eligible for final tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to reduce noise pollution and accomplishes this purpose by the redesign to eliminate noise pollution.
- c. The facility complies with DEQ statutes and rules.
- d. The portion of the facility cost that is properly allocable to pollution control is 69 percent.

6. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$50,692 with 69 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1757.

J. Hector:s  
AS2935  
(503) 229-5989  
August 8, 1986

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Gamble Farms  
26142 Cory Road  
Junction City, OR 97448

The applicant owns and operates a poultry farm and manure bagging facility at Junction City, Oregon.

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

2. Description of Facility

The facility consists of a covered composting area (\$20,244), a Bobcat Skid Steel loader and bucket (\$20,149) and installation costs (\$8,915).

Claimed Facility Cost: \$49,308  
(Accountant's Certification was provided).

3. Procedural Requirements

The facility was completed after December 31, 1983, so it is governed by ORS 468.150 through 468.190 in effect on January 1, 1984, and by OAR 340-16-015 (effective July 13, 1984; amended March 21, 1985).

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed July 8, 1985 more than 30 days before construction commenced on September 26, 1985.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Construction of the facility was substantially completed on September 30, 1985 and the application for final certification was found to be complete on July 22, 1986 within 2 years of substantial completion of the facility.

4. Evaluation

- a. The sole purpose of the facility is to recycle a material (chicken manure) that would otherwise be solid waste. The original facility consisting of bagging equipment was not constructed with the aid of the tax credit program.

Chicken manure was originally composted in the open. However, that was unacceptable as the manure became too wet to bag. The pile also leached and runoff became a potential problem.

The applicant does not own enough property to properly land spread the manure as fertilizer and was unable to sell or give away any quantity of the material. Approximately 75,000 cubic feet of waste is produced annually.

The manure is composted in the building for approximately 9 months. It is then hogged, screened and bagged in one cubic foot bags for retail markets to be sold as organic fertilizer. The finished product is virtually odorless. The facility is operating in compliance with all Department rules.

Percent allocable was determined using OAR 340-16-030. Facility cost divided by average annual cash flow equal 10.36 (return on investment factor). The useful life of the facility was estimated at 10 years. Using table one of the rule gives a return on investment of zero. Therefore, the facility is 100% eligible.

5. Summation

- a. The facility was constructed in accordance with all regulatory deadlines.
- b. The facility is eligible for final tax credit certification in that the sole purpose of the facility is to reduce a substantial quantity of solid waste by recycling. This reduction is accomplished by the use of a resource recovery process.
- c. The facility complies with DEQ statutes and rules.
- d. The sole purpose of the facility is to utilize material that would otherwise be solid waste by mechanical process for their useful chemical or physical properties

The end product of the utilization is a usable source of power or other item of real economic value;

The end product of the utilization, other than a usable source of power, is competitive with an end product produced in another state; and

Application No. T-1779

Page 3

SF1335

The Oregon law regulating solid waste imposes standards at least substantially equivalent to the federal law.

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

6. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$49,308 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1779.

SF1335

Ernest A. Schmidt

(503) 229-5157

9-12-86

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Tektronix, Inc.  
PO Box 500  
Beaverton, OR 97077

The applicant owns and operates a manufacturing facility for electronic equipment, oscilloscopes, information display products and television products in Beaverton, Oregon.

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

2. Description of Facility

The facility described in this application is a new paint line located in Building 16 which enables the use of high solids paints. It includes a room, an air ventilation system, the piping system to distribute heated-high pressure paint, and testing-evaluation of the total system. The costs are:

Construction	\$ 59,619
Testing and Evaluation	<u>\$192,400</u>
Total	\$252,019

Claimed Facility Cost: \$252,019.00  
(Accountant's Certification was provided).

3. Procedural Requirements

The facility was completed after December 31, 1983, so it is governed by ORS 468.150 through 468.190 in effect on January 1, 1984, and by OAR 340-16-015 (effective July 13, 1984; amended March 21, 1985).

The facility met all statutory deadlines in that:

- a. Request for Preliminary Certification Tax Credit was made on June 10, 1982 and approved on November 18, 1983, and testing and evaluation of the total system was completed on October 16, 1985. This results in the Preliminary Certification for Tax Credit not being subject to the provisions of the new tax credit law, Chapter 637, Oregon Law 1983.

- b. The request for preliminary certification was approved before application for final certification was made.
- c. Installation of the facility was substantially completed on October 15, 1985, and the application for final certification was found to be complete on August 8, 1986, within 2 years of substantial completion of the facility.

4. Evaluation of Application

- a. The facility is eligible for tax credit because the principal purpose of the facility is to comply with a requirement imposed by the Department to control air pollution. The applicant was required by Rule to reduce the volatile organic compound (VOC) emissions from the painting line. The Rule limits emissions to 3.0 pounds of VOC per gallon of paint. Instead of thinning the paint with solvent, the claimed facility can thin paints by heating the paint. The paint line emissions of approximately 56.2 tons per year are reduced by approximately 50 percent. The paint lines operate in compliance.

Since the finish on the product can directly affect sales, changing paints is a major change and involves:

1. Review of the current painting and drying equipment.
2. Review of the paint suppliers.
3. Establishing specific quality control procedures for each paint finish.
4. Determining what new equipment is necessary to use the new paint.
5. Constructing the necessary new equipment.
6. Testing and evaluating the new paints.
7. Documenting the new production procedures.

The applicant converted some paints to water base paints which meet the Rule and a minor amount (less than 5 percent) to powder paint which contains almost no VOC. Nineteen paint finishes are used and each one was analyzed for changes that would enable the overall paint line emissions to meet the rule. Data show that the paint line emits 2.99 pounds VOC per gallon of paint.

- b. The equipment cost to install the new paint line was \$59,619 of the total cost of \$252,019. The applicant submitted additional documented costs of \$192,400 to test and evaluate the new paints during the time period November 18, 1983 through October 16, 1985. (Both of these costs were capitalized by the applicant.) Non-documented costs of \$200,000 were estimated by the company but are not being claimed for tax credit purposes. The cost savings from reducing the solvent usage by less than 8,000 gallons per year (at an average value of about \$2.00 per gallon) is \$16,000. The other costs to paint the product are the same as before the change.

The annual operating expenses of the replacement facility are approximately the same as the original paint line. Therefore, the resulting portion of actual costs properly allocable to pollution control is 100%

5. Summation

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

6. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$252,019.00 with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1791.

Ray Potts:s  
AS3664  
(503) 229-6093  
August 20, 1986

State of Oregon  
Department of Environmental Quality

TAX RELIEF APPLICATION REVIEW REPORT

---

1. Applicant

Boise Cascade Corporation  
Timber & Wood Products Division  
One Jefferson Square  
Boise, Idaho 83728

The applicant owns and operates a lumber and plywood facility in Elgin, Oregon..

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

2. Description of Facility

The water conservation facilities consist of air cooled heat exchange equipment, piping, valves, pumps and an oil skimmer and bark removal system.

Claimed Facility Cost: \$ 155,023.49  
(Accountant's Certification was provided).

3. Procedural Requirements

The facility was completed after December 31, 1983, so it is governed by ORS 468.150 through 468.190 in effect on January 1, 1984, and by OAR 340-16-015 (effective July 13, 1984; amended March 21, 1985).

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed July 30, 1984 more than 30 days before construction commenced on May 1985.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Installation of the facility was substantially completed on October 31, 1985 and the application for final certification was found to be complete on June 24, 1986 within 2 years of substantial completion of the facility.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department to control water pollution. The requirement is to comply with waste discharge permit conditions.

This control is accomplished by redesign to reduce industrial waste as defined in ORS 468.700.

Until September, 1985, all waste waters from the applicants wood products facility were pumped to a storage pond for evaporation or reuse. Discharges were not authorized in the applicants Water Pollution Control Facilities permit. Due to heavy runoff, Special Letter Permits were granted in late 1984 and early 1985 to allow a temporary discharge to the Grande Ronde River. These discharges were granted to prevent overflows and damage to the storage pond. In late 1984, the Department directed the applicant to complete wastewater control facilities to 1) conserve fresh water use within the mill, and 2) divert stormwater runoff from 35 acres of log yard from the storage pond during the wet winter months.

The applicant replaced nine water cooled heat exchangers with air cooled units and has reused some cooling water as fresh water makeup in veneer dryer air pollution scrubbers. This has reduced wastewater flows to the storage pond by approximately one million gallons per month. The applicant also diverted the log yard runoff directly to Phillips Creek which is a tributary of the Grande Ronde River. The runoff, which can amount to as much as 1,500 gallons per minute, is now treated through an oil skimming device prior to discharge. To facilitate the discharge of log deck runoff, the Department issued a National Pollutant Discharge Elimination System Waste Discharge permit in September, 1985.

Since completion of the facilities, there has been no discharge of water from the storage pond.

- b. Analysis of Eligible Costs

There is no return on investment from this facility. One hundred (100) percent of the cost of the facility is allocated to pollution control.

5. Summation

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

- b. The facility is eligible for final tax credit certification in that the principal purpose of the facility is to comply with a requirement imposed by the Department to control water pollution and accomplishes this purpose by the redesign to reduce industrial waste as defined in ORS 468.700.
- c. The facility complies with permit conditions.
- d. The portion of the facility cost that is properly allocable to pollution control is 100 %.

6. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$ 155,023.49 with 100 % allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1834.

L.D. Patterson:c  
WC990  
(503) 229-5374  
9/4/86

State of Oregon  
Department of Environmental Quality

**TAX RELIEF APPLICATION REVIEW REPORT**

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1. Applicant

Graphic Arts Center, Inc.  
2000 NW Wilson Street  
Portland, OR 97209

The applicant owns and operates a color printing press for catalogs and advertising brochures, etc., in Portland, Oregon.

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

2. Description of Facility

The facility described in this application is a vapor incinerator connected to press number 4. The incinerator burns vapors from drying ink. The equipment and cost are:

TEC CRPC 11-6000 Catalytic Incinerator	\$137,350.00
Platform	52,050.00
Exhaust Ducts	<u>12,794.14</u>
	\$202,194.14

Claimed Facility Cost: \$202,194.00  
(Accountant's Certification was provided).

3. Procedural Requirements

The facility was completed after December 31, 1983, so it is governed by ORS 468.150 through 468.190 in effect on January 1, 1984, and by OAR 340-16-015 (effective July 13, 1984; amended March 21, 1985).

The facility met all statutory deadlines in that:

- a. The request for preliminary certification was filed February 27, 1984, before construction commenced on August 1, 1984.
- b. The request for preliminary certification was approved before application for final certification was made.
- c. Construction of the facility was substantially completed on September 1, 1984, and the application for final certification was found to be complete on July 24, 1986, within 2 years of substantial completion of the facility.

4. Evaluation of Application

- a. The facility is eligible because the principal purpose of the facility is to comply with a requirement imposed by the Department to control air pollution. The requirement is to comply with OAR 340-28-070.

The company operates a commercial heatset web-offset lithography printing press. The web dryer system exhausts solvent laden air. The solvent vapors are ducted to the incinerator which contains a catalytic oxidizer designed to maintain a 95 percent hydrocarbon reduction across the incinerator.

The solvents are actually oils that, without the incinerator, condense upon being exhausted into the air. This steam-like plume would violate the Department's opacity rule. The claimed facility was inspected by the Department and operates satisfactorily.

- b. Analysis of eligible costs involves the heat recovered from oxidizing the solvent laden air from the web dryer. After the catalytic oxidizer, there are two heat exchangers: a primary heat exchanger which pre-heats the dryer exhaust input to the incinerator and a secondary heat exchanger which heats up the dryer intake air from room temperature. The incinerator cannot generate enough heat from ink solvents to heat the web dryer intake air to produce a positive return on investment. Thus, 100 percent of the cost is allocable to pollution control.

5. Summation

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

6. Director's Recommendation

Based upon the findings in the Summation, it is recommended that a Pollution Control Facility Certificate bearing the cost of \$202,194.00 with 100 percent allocated to pollution control, be issued for the facility claimed in Tax Credit Application No. T-1835.

Ray Potts:s  
AS3504  
(503) 229-6093  
July 25, 1986

State of Oregon  
Department of Environmental Quality

REISSUANCE OF POLLUTION CONTROL FACILITY CERTIFICATION

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1. Certificates issued to:

Publishers Paper  
Newberg Division  
419 Main Street  
Oregon City, OR 97045

The certificates were issued for air, water and solid waste pollution control facilities.

2. Summation:

Publishers Paper Co. was sold to Jefferson Smurfit Corporation in February of 1986. All mill operations continue as before but require the change of company name on all active tax credit certificates.

3. Director's Recommendation:

It is recommended that the certificates on the attached listing be revoked and reissued to Smurfit Newsprint Corporation, the certificates to be valid only for the time remaining from the date of the first issuance.

SChew  
229-6484  
26 Sept 86



August 21, 1986

Ms. Sherry Chew  
Dept. of Environmental Quality  
P. O. Box 1760  
Portland, OR 97207

Dear Ms. Chew:

Publishers Paper Co. was sold to Jefferson Smurfit Corporation in February 1986.

All mill operations will remain the same under the new name of Smurfit Newsprint Corporation. Please change all Pollution Control Facility Credits accordingly. A list of credits were sent to you on August 8 from Marge Carpenter. You can contact her if you should have any questions.

Very truly yours,

Jay D. Lamb  
Manager of Administration

Management Services Div.  
Dept. of Environmental Quality

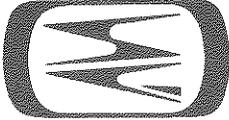
RECEIVED  
AUG 24 1986



OREGON C.U.P. AWARD  
Publishers Paper Co. was named in 1972 as the first recipient of the Oregon C.U.P. (Cleaning Up Pollution) Award for outstanding achievements in protecting the environment.

4000 KRUSE WAY PLACE, LAKE OSWEGO, OREGON 97034 PH: (503) 635-9711

650 4211



## SMURFIT NEWSPRINT CORPORATION

4000 KRUSE WAY PLACE, LAKE OSWEGO, OR 97034 503/635-9711  
650 4211

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August 8, 1986

Ms. Sherry Chew  
Dept. of Environmental Quality  
P.O. Box 1760  
Portland, OR 97207

Dear Sherry:

Publishers Paper Co. was purchased by Jefferson Smurfit Corporation in February 1986, and in late June 1986, Publishers Paper Co.'s name changed to Smurfit Newsprint Corporation.

I have attached a list of Pollution Control Facility Credits we now have under Publishers Paper Co. Please change the name on these credits to Smurfit Newsprint Corporation.

If you need additional information, please do not hesitate to call.

Very truly yours,

Marge Carpenter

MC:so  
attach.

SMURFIT NEWSPRINT CORPORATION  
(FORMERLY PUBLISHERS PAPER CO.)  
Pollution Control Facility Credits

Location	Description of Facility	Certificate Number	Date of Certification (1)	Type of Facility (2)	Date Placed In Operation (3)	% of Cost Allocable to Pollution Control (4)	Certified Cost Net of Any Retirements (5)	Annual Credit % (6)	Remaining Years	Remaining Credit
Newberg	Hog Fuel Boiler	T-814 747	11-19-1976	Solid Waste	Dec. 1974	100%	2,937,230	5%	1	6,684
Tillamook	Wet Scrubber - Hog Fuel Boiler	T 939 861	12-16-1977	Air	July 1977	80-100%	133,682	5%	1	3,802
Newberg	Filter Plant Backwash	940 862	12-16-1977	Water	July 1977	80-100%	76,034	5%	1	2,397
Oregon City	Filter Plant Backwash	863 863	12-16-1977	Water	July 1977	80-100%	47,935	5%	1	4,915
Oregon City	Lagoon Water Aerators	864 864	12-16-1977	Water	July 1977	80-100%	98,301	5%	2	5,288
Oregon City	Cyclone Chip Emission Control	895 895	4-28-1978	Air	July 1977	80-100%	52,874	5%	2	1,978
Oregon City	Foam Suppression Sprinklers	933 933	10-27-1978	Water	Nov. 1976	80-100%	19,781	5%	2	1,634
Oregon City	Lagoon Water Aerators	934 934	10-27-1978	Water	Jan. 1977	80-100%	16,346	5%	2	9,696
Oregon City	Effluent Pump	935 935	10-27-1978	Water	Sept. 1977	80-100%	96,964	5%	2	232,176
Newberg	Turbine Generator	947 947	5-25-1979	Solid Waste	Oct. 1977	100%	2,321,768	5%	3	131,307
Oregon City	DeInk Plant Expansion	1030 1030	12-14-1979	Solid Waste	Sept. 1979	100%	875,372	5%	3	298,308
Tillamook	Turbine Generator System	1031 1031	12-14-1979	Solid Waste	Dec. 1978	100%	1,988,718	5%	3	1,295,847
Newberg	DeInk Plant - Phase I	1033 1033	12-14-1979	Solid Waste	June 1979	100%	8,638,973	5%	4	138,748
Oregon City	DeInk Plant Expansion	1150 1150	10-17-1980	Solid Waste	July 1980	100%	693,741	5%	4	446,912
Newberg	DeInking Plant - Phase II	1176 1176	12-19-1980	Solid Waste	July 1980	100%	2,234,553	5%	4	2,831,820
Newberg	Hog Fuel Boiler	1180 1180	12-19-1980	Solid Waste	Dec. 1980	100%	14,159,107	5%	5	820,990
Newberg	Upgrade Waste Water Treatment	1358 1358	12-4-1981	Water	Nov. 1980	80-100%	3,283,960	5%	5	17,180
Toledo	Anti-Stain Dip Tank	1359 1359	12-4-1981	Water	Oct. 1981	80-100%	68,711	5%	5	32,590
Oregon City	Lagoon Baffle & Aerators	1360 1360	12-4-1981	Water	April 1981	80-100%	130,357	5%	5	2,692,220
Newberg	Turbine Generator	1366 1366	12-4-1981	Solid Waste	Oct. 1981	100%	10,768,882	5%	7	38,682
Oregon City	Sludge Dryer Cust Collector	1717 1717	11-18-1983	Air	Nov. 1982	100%	110,526	5%	7	600,194
Newberg	Upgrade Wastewater Treatment	1718 1718	11-18-1983	Water	May 1982	100%	1,714,845	5%	7	7,070
Newberg	Spare Aerator	1719 1719	11-18-1983	Water	Sept. 1982	100%	20,201	5%	8	34,912
Molalla	Dip Tank	1772 1772	12-14-1984	Water	Nov. 1983	100%	87,272	5%		
Newberg	2nd Treatment Exp. Phase I-A (6 aerators & 1 mixture)	1773 1773	12-14-1984	Water	Dec. 1983	100%	251,558	5%	8	100,624
Clackamas	Replace Anti-Stain Dip Tank	1833 1833	1-31-1986	Water	Feb. 1984	100%	50,220	5%	10	25,110
Philomath	Particulate Control	NC2114 1986		Air	Dec. 1986	100%	100,000	5%	10	50,000
Ore. City	Mill Effluent Treatment & Disposal	TC2116 1987		Water	Dec. 1986	100%	1,386,000	5%	10	693,000

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 747

Date of Issue \_\_\_\_\_

Application No. T-814

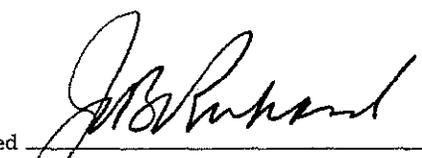
## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: <b>Publishers Paper Co.</b> <b>419 Main Street</b> <b>Oregon City, Oregon 97045</b>	Location of Pollution Control Facility:  <b>Newberg, Oregon</b>
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  <b>Waste wood fired boiler</b>	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <b>May 1976</b> Placed into operation: <b>December 1974</b>	
Actual Cost of Pollution Control Facility:        \$ <b>2,937,230</b>	
Percent of actual cost properly allocable to pollution control:  <p style="text-align: center;"><b>100%</b></p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air and water or solid waste facility was erected, constructed or installed on or after January 1, 1967, or January 1, 1973 respectively, and on or before December 31, 1980, 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 solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapters 459, 468 and the regulations 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.

  
 Signed \_\_\_\_\_  
 Title **Chairman** \_\_\_\_\_

Approved by the Environmental Quality Commission on  
 the 19th day of November, 1976

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 861  
Date of Issue 12/16/77  
Application No. Te939

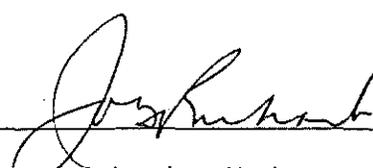
## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility: 3111 Third Street Tillamook, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: <p style="text-align: center;">A Bumstead-Woolford scrubber to control boiler emissions</p>	
Type of Pollution Control Facility: <input checked="" type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>7/11/77</u> Placed into operation: <u>7/11/77</u>	
Actual Cost of Pollution Control Facility:        \$ <u>133,682.00</u>	
Percent of actual cost properly allocable to pollution control: <p style="text-align: center;">80% or more</p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 16th day of December, 19 77.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 862

Date of Issue 12/16/77

Application No. T-940

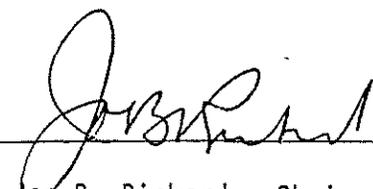
## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon	Location of Pollution Control Facility:  Newberg, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  Eliminate water treatment plant filter backwash discharge to the river	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>7/5/77</u> Placed into operation: <u>7/5/77</u>	
Actual Cost of Pollution Control Facility:    \$ <u>76,034.00</u>	
Percent of actual cost properly allocable to pollution control:  <p style="text-align: center;">80% or more</p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 16th day of December, 19 77.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 863

Date of Issue 12/16/77

Application No. T-941

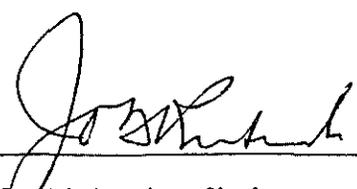
## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility: Oregon City, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: <p style="text-align: center;">Filter plant discharge extension</p>	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>7/15/77</u> Placed into operation: <u>7/15/77</u>	
Actual Cost of Pollution Control Facility:      \$ <u>47,935.00</u>	
Percent of actual cost properly allocable to pollution control: <p style="text-align: center;">80% or more</p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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.

Signed   
 Title Joe E. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 16th day of December, 19 77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 864

Date of Issue 12/16/77

Application No. T-942

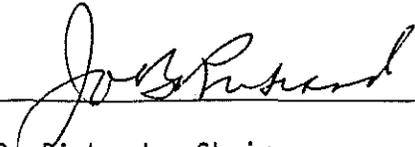
## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility:  Oregon City, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  Additional aerators for secondary lagoon (three 100 hp)	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>7/22/77</u> Placed into operation: <u>7/22/77</u>	
Actual Cost of Pollution Control Facility:        \$ <u>98,301.00</u>	
Percent of actual cost properly allocable to pollution control:  <p style="text-align: center;">80% or more</p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 16th day of December, 1977.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 893

Date of Issue 4/28/78

Application No. T-938

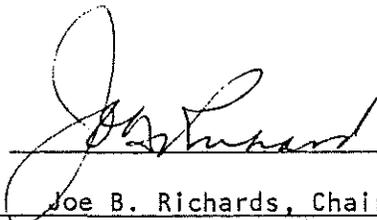
## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Company Oregon City Division 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility: 419 Main Street Oregon City, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  Cyclone, ductwork and fan assembly located on the ground wood chip bin	
Type of Pollution Control Facility: <input checked="" type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>7/28/77</u> Placed into operation: <u>7/6/77</u>	
Actual Cost of Pollution Control Facility:      \$ <u>52,874.00</u>	
Percent of actual cost properly allocable to pollution control: <p style="text-align: center;"><u>80% or more</u></p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 28th day of April, 19 78

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 933  
Date of Issue 10/27/78  
Application No. T-1019

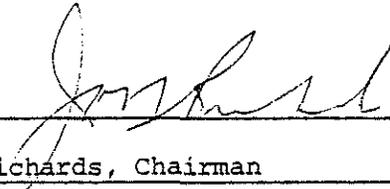
## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility:  Oregon City, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  Foam suppression system and secondary treatment lagoon	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>March 1977</u> Placed into operation: <u>November 1976</u>	
Actual Cost of Pollution Control Facility:        \$ <u>19,781.00</u>	
Percent of actual cost properly allocable to pollution control:  <p style="text-align: center;">80% or more</p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 27th day of October, 19 78

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 934  
Date of Issue 10/27/78  
Application No. T-1020

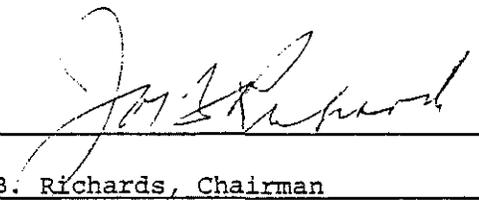
## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility:  Oregon City, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  Additional surface aerator on secondary treatment lagoon.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>1/12/77</u> Placed into operation: <u>1/12/77</u>	
Actual Cost of Pollution Control Facility:      \$ <u>16,346.00</u>	
Percent of actual cost properly allocable to pollution control:  <p style="text-align: center;">80% or more</p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 27th day of October, 19 78

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 935  
Date of Issue 10/27/78  
Application No. T-1021

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility:  Oregon City, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  Wastewater transfer pump to secondary treatment	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>9/6/77</u>	Placed into operation: <u>9/6/77</u>
Actual Cost of Pollution Control Facility: <u>\$ 96,964.00</u>	
Percent of actual cost properly allocable to pollution control:  <u>80% or more</u>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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.

Signed \_\_\_\_\_

Title \_\_\_\_\_

*Joe B. Richards*  
Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on

the 27th day of October, 1978

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 947  
Date of Original Issuance 12/15/78  
Date of Reissuance 5/25/79  
Appl. No. T-1022

## POLLUTION CONTROL FACILITY CERTIFICATE

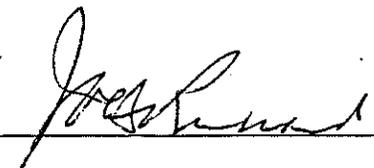
Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility:  Newberg Yamhill County, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  <p style="text-align: center;">A turbine generator to generate electrical energy.</p>	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>October 1977</u> Placed into operation: <u>October 1977</u>	
Actual Cost of Pollution Control Facility:        \$ <u>2,321,768.00</u>	
Percent of actual cost properly allocable to pollution control:  <p style="text-align: center;">100%</p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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: THIS IS A REISSUED CERTIFICATE VALID ONLY FROM THE DATE OF ISSUANCE OF THE ORIGINAL CERTIFICATE.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 25th day of May, 19 79.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1030

Date of Issue 12/14/79

Application No. T-1111

## POLLUTION CONTROL FACILITY CERTIFICATE

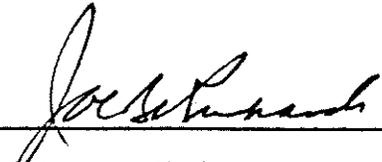
Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility:  Oregon City Mill Oregon City, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  Expansion and upgrading of an existing newsprint deinking facility.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>9/11/79</u> Placed into operation: <u>9/11/79</u>	
Actual Cost of Pollution Control Facility:    \$ <u>970,996.00</u>	
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 ORS 468.175 and 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 - The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 14th day of December, 19 79

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1031

Date of Issue 12/14/79

Application No. T-1112

## POLLUTION CONTROL FACILITY CERTIFICATE

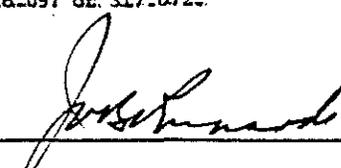
Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon 97141	Location of Pollution Control Facility:  3111 Third Street Tillamook, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  Electrical generating facility, including a turbine generator, cooling tower, boiler modifications and related equipment and modifications.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>12/21/78</u> Placed into operation: <u>12/21/78</u>	
Actual Cost of Pollution Control Facility: \$ <u>1,988,718.00</u>	
Percent of actual cost properly allocable to pollution control: <p style="text-align: center;">100%</p>	

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 ORS 468.175 and 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 - The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed 

Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 14th day of December, 19 79

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1033

Date of Issue 12/14/79

Application No. T-1113

## POLLUTION CONTROL FACILITY CERTIFICATE

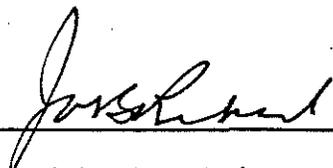
Issued To: Publishers Paper Company 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility: Wynooski Road Newberg, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: <p style="text-align: center;">A 100 ton per day newsprint deinking plant.</p>	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>6/15/79</u> Placed into operation: <u>6/15/79</u>	
Actual Cost of Pollution Control Facility: \$ <u>8,785,186.00</u>	
Percent of actual cost properly allocable to pollution control: <p style="text-align: center;">100%</p>	

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 ORS 468.175 and 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 - The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 14th day of December, 1979

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1150  
Date of Issue 10/17/80  
Application No. T-1276

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Company Oregon City Division 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility:  Oregon City, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: Six (6) extractors, a pressure screen and rough screens, together with ancillary pumps, piping and controls to increase deink pulping capacity.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: July 5, 1980 Placed into operation: July 5, 1980	
Actual Cost of Pollution Control Facility: \$ 693,741.00	
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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed \_\_\_\_\_

Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
the 17th day of October, 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1176

Date of Issue 12/19/80

Application No. T-1275

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Company Newberg Division 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility:  Wynoski Road Newberg, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  The facility consists of processing equipment to use an additional one hundred tons of waste newsprint per day to produce new newsprint.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>July 10, 1980</u> Placed into operation: <u>July 15, 1980</u>	
Actual Cost of Pollution Control Facility: \$ <u>2,234,553.00</u>	
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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed \_\_\_\_\_

Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on

the 19th day of December, 1980

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1180

Date of Issue 12/19/80

Application No. T-1287

## POLLUTION CONTROL FACILITY CERTIFICATE

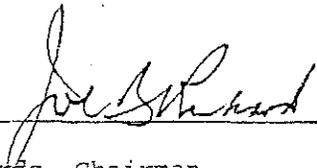
Issued To: Spaulding Pulp and Paper Company Newberg Division 419 Main Street Oregon City, Oregon 97045	Location of Pollution Control Facility:  Wyooski Road Newberg, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  The facility consists of a three hundred thousand pounds of steam per hour boiler fired by hogged waste wood fuel.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed:    December 1980        Placed into operation: December 1980	
Actual Cost of Pollution Control Facility:        \$ 14,159,107.00	
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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed \_\_\_\_\_  
  
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 19th day of December, 1980.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1358  
Date of Issue 12/4/81  
Application No. T-1460

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Co. 419 Main Street Oregon City, OR 97045	Location of Pollution Control Facility:  Newberg, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: The facility is an expansion/upgrade of the existing wastewater treatment system consisting of: an activated sludge basin, two Clarivac clarifiers, an Arus-Andrite belt press, 13 75 Hp aerators, an electrical station, associated pumps, piping and instrumentation.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>Nov. 26, 1980</u> Placed into operation: <u>Nov. 26, 1980</u>	
Actual Cost of Pollution Control Facility: \$ <u>3,283,960.00</u>	
Percent of actual cost properly allocable to pollution control: <u>80% or more</u>	

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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed 

Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on

the 4th day of December, 19 81

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1359  
Date of Issue 12/4/81  
Application No. T-1461

## POLLUTION CONTROL FACILITY CERTIFICATE

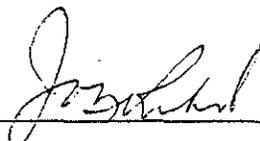
Issued To: Publishers Paper Co. 419 Main Street Oregon, City, OR 97045	Location of Pollution Control Facility:  Toledo, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: The facility is a pentachlorophenate solution dip tank and control system with a slop tank, a sloped concrete slab, and a metal roof.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>Oct. 1981</u> Placed into operation: <u>Oct. 1981</u>	
Actual Cost of Pollution Control Facility: \$ <u>68,711.00</u>	
Percent of actual cost properly allocable to pollution control: <u>80% or more</u>	

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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed   
Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
the 4th day of December, 1981

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1360

Date of Issue 12/4/81

Application No. T-1462

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Co. 419 Main Street Oregon City, OR 97045	Location of Pollution Control Facility:  Oregon City Division West Linn, OR
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: The facility (incorporated into the existing secondary waste-water treatment system) consists of two 100 Hp agrators, a plastic fabric directional baffle, and electric capacitors.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>April 1, 1981</u> Placed into operation: <u>April 1, 1981</u>	
Actual Cost of Pollution Control Facility: \$ <u>130,357.00</u>	
Percent of actual cost properly allocable to pollution control:  <u>80% or more</u>	

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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed \_\_\_\_\_

Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on

the 4th day of December, 1981

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1366  
Date of Issue 12/4/81  
Application No. T-1475

## POLLUTION CONTROL FACILITY CERTIFICATE

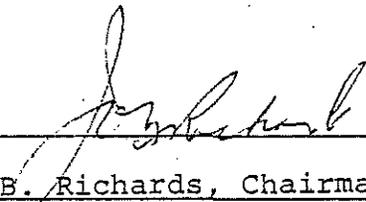
Issued To: Publishers Paper Co. Newberg Division 419 Main Street Oregon City, OR 97045	Location of Pollution Control Facility:  Newberg, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  Electrical generating system (steam turbine generator, condenser, cooling tower, steam lines, structures, etc.)	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>9/29/81</u> Placed into operation: <u>10/15/81</u>	
Actual Cost of Pollution Control Facility: <u>\$10,768,882.00</u>	
Percent of actual cost properly allocable to pollution control:  <u>100%</u>	

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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed   
Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
the 4th day of December, 19 81

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1717  
Date of Issue 11/18/83  
Application No. T-1646

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Co. Oregon City Division 4000 Kruse Way Lake Oswego, Oregon 97034	Location of Pollution Control Facility:  419 Main Street Oregon City, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: Sludge dryer particulate emission controls consisting of a variable volume venturi scrubber with a cyclonic separator, fan and 60-foot stack.	
Type of Pollution Control Facility: <input checked="" type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: Nov 8, 1982 Placed into operation: Nov 8, 1982	
Actual Cost of Pollution Control Facility: \$ 110,526.00	
Percent of actual cost properly allocable to pollution control:  80 percent or more	

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 ORS 468.175 and 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—The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed   
Title James E. Petersen, Chairman  
Approved by the Environmental Quality Commission on  
the 18th day of November, 1983

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1718  
Date of Issue 11/18/83  
Application No. T-1645

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Co. Newberg Division 4000 Kruse Way Place Lake Oswego, Oregon 97034	Location of Pollution Control Facility:  Wynooski Road Newberg, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: This facility consists of: 1) an Ashbrook sludge belt press, feed system, polymer facility, and building; 2) two 10-inch secondary clarifier solids siphons and drive modifications; 3) a Black-Clawson centricleaner; and 4) associated plumbing and electrical equipment.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>May 28, 1982</u> Placed into operation: <u>May 28, 1982</u>	
Actual Cost of Pollution Control Facility: \$ <u>1,714,845.00</u>	
Percent of actual cost properly allocable to pollution control:  <u>80 percent or more</u>	

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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed   
Title James E. Petersen, Chairman

Approved by the Environmental Quality Commission on  
the 18th day of November, 1983

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1719

Date of Issue 11/18/83

Application No. T-1643

## POLLUTION CONTROL FACILITY CERTIFICATE

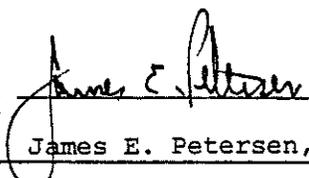
Issued To: Publishers Paper Co. Newberg Division 4000 Kruse Way Place Lake Oswego, Oregon 97034	Location of Pollution Control Facility:  Wynooski Road Newberg, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: The facility is an Ashbrook-Simon Hactly MSAH-75 floating 75 Hp aerator.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>July 2, 1982</u> Placed into operation: <u>Sept 1, 1982</u>	
Actual Cost of Pollution Control Facility:        \$ <u>20,201.00</u>	
Percent of actual cost properly allocable to pollution control:  <u>80 percent or more</u>	

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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed   
 Title James E. Petersen, Chairman

Approved by the Environmental Quality Commission on  
 the 18th day of November, 19 83

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1772

Date of Issue 12/14/84

Application No. T-1708

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Co. Molalla Division 4000 Kruse Way Place Lake Oswego, OR 97034	Location of Pollution Control Facility: Hwy. 213 Liberal, OR
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: The facility is an anti-stain dip tank control system consisting of a sealed concrete pad and sloop tank, curbing and a metal building enclosure.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>November 4, 1983</u> Placed into operation: <u>November 4, 1984</u>	
Actual Cost of Pollution Control Facility: <u>\$ 87,272.00</u>	
Percent of actual cost properly allocable to pollution control: <u>80 percent or more</u>	

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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed *James E. Petersen*  
 Title James E. Petersen, Chairman

Approved by the Environmental Quality Commission on  
 the 14th day of December, 1984

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1773

Date of Issue 12/14/84

Application No. T-1709

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Co. Newberg Division 4000 Kruse Way Place Lake Oswego, Oregon 97034	Location of Pollution Control Facility:  Wyooski Road Newberg, OR
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  The facility consists of six 75hp floating aerators, one 40hp floating mixer, associated electrical equipment and 240 feet of 14 inch diameter polyethylene pipe.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>December 30, 1984</u> Placed into operation: <u>Dec. 30, 1984</u>	
Actual Cost of Pollution Control Facility:    \$ <u>251,558.00</u>	
Percent of actual cost properly allocable to pollution control:  80 percent or more	

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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed 

Title James E. Petersen, Chairman

Approved by the Environmental Quality Commission on  
the 14th day of December, 19 84

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1833

Date of Issue 1/31/86

Application No. T-1772

# POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Publishers Paper Co. Clackamas Division 4000 Kruse Way Place Lake Oswego, OR 97034	Location of Pollution Control Facility:  Washington Street-Hwy 213 Oregon City, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  antistain chemical spill control facility consisting of a concrete drip pad, sump pump and metal building enclosure	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: July 31, 1984      Placed into operation: July 31, 1984	
Actual Cost of Pollution Control Facility: \$ 50,220	
Percent of actual cost properly allocable to pollution control: 100 percent	

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 ORS 468.175 and 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed   
Title James E. Petersen, Chairman

Approved by the Environmental Quality Commission on  
the 31st day of January, 1986

State of Oregon  
Department of Environmental Quality

REISSUANCE OF POLLUTION CONTROL FACILITY CERTIFICATION

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1. Certificates issued to:

Champion International  
Building Products  
PO Box 10228  
Eugene, OR 97401

The certificates were issued for air, water and solid waste facilities.

2. Summation

From 1977 through 1981, the Environmental Quality Commission has issued pollution control facility certificates to Champion International for its Gold Beach mill. This operation has been purchased by Gold Beach Timber Products, Inc. and they have requested that the certificates be reissued under their name. (letters attached)

3. Director's Recommendation:

It is recommended that Certificates numbered 825, 826, 857, 871, 1021, and 1338 be revoked and reissued to Gold Beach Timber Products, the certificate to be valid only for the time remaining from the date of the first issuance.

SChew  
229-6484  
18 Aug 86

Timberlands  
P.O. Box 849  
Eugene, Oregon 97440  
503 687-4647

Management Services Div.  
Dept. of Environmental Quality  
**RECEIVED**  
DEC 3 1985

LDP



November 18, 1985

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
NOV 18 1985  
WATER QUALITY CONTROL

Department of Environmental Quality  
Box 1760  
Portland, OR 97207

Gentlemen:

Our mill at Mapleton, Oregon has been sold to Davidson Industries, P.O. Box 7, Mapleton, OR 97453. I will advise them that the following pollution control certificates are available for transfer to them:

<u>Certificate No.</u>	<u>App. No.</u>	<u>Description</u>
821	T-904	Waste Water Collection
823	T-906	Incinerate Dryer Emissions
944	T-1027	Hog Fuel Preparation System
1340	T-1434	Dryer Wash Water System

Our mills at Idanha and Lebanon, Oregon have been sold to Freres Lumber Co., Box 312, Lyons, OR 97358. I will advise them that the following control certificates are available for transfer to them:

<u>Certificate No.</u>	<u>App. No.</u>	<u>Description</u>
948	T-1026	Hog Fuel Preparation System
822 2/3 of Cert.	T-905	Buffalo Bag House Filter
830	T-914	Glue Waste Recirculation
1018	T-1122	Two Baghouses
1019	T-1123	Dryer Wash Water Recirc.
1022	T-1127	Clark Baghouse
1336	T-1430	Waste Water Recirculation
1339	T-1433	Dryer Exhaust to Boiler

Our Lebanite plant at Lebanon has been sold to U.S. Plywood Corporation, 37680 River Road, Lebanon, OR 97355. I will advise them that the following pollution control certificates are available for transfer to them:

Department of Environmental Quality  
November 8, 1985  
Page 2

<u>Certificate No.</u>	<u>App. No.</u>	<u>Description</u>
822 1/3 of Cert. 837	T-905 T-916	Buffalo Bag House Filter Baghouse Control System

Our mills at Gold Beach and Dee have not been sold and are still on the market. There are several potential buyers currently looking at these mills. The following certificates apply to Gold Beach and Dee:

<u>Certificate No.</u>	<u>App. No.</u>	<u>Description</u>
--825	T-908	Glue Wash Water
--826	T-909	Three Baghouses
-857	T-932	Wood Waste Reclaim System
-871	T-944	Dryer Washwater Treatment
-1021	T-1126	Glue Wash Water System
1338	T-1432	Modify Dryers & Scrubber
858	T-933	Waste Treatment Plant
945	T-1028	Hog Fuel Boiler

Very truly yours,

*M. F. Rapp*

Marvin F. Rapp

MFR/se

cc W. O. Larson  
R. Heinert

# GOLD BEACH PLYWOOD, INC.

95858 JERRY'S FLAT RD. • GOLD BEACH, OR 97444 • (503) 247-4505

July 31, 1986

Department of Environmental Quality  
P. O. Box 1760  
Portland, Oregon 97207

Gentlemen:

As stated in M. F. Rapp's letter of February 27, 1986, the former Champion International mill at Gold Beach Oregon has been sold to Gold Beach Timber Products, Inc., 95858 Jerry's Flat Road, Gold Beach, Oregon 97444. Please transfer the following Pollution Control Certificates:

<u>Certificate No.</u>	<u>App. No.</u>	<u>Description</u>
825	T-908	Glue Wash Water
826	T-909	Three Baghouses
857	T-932	Wood Waste Reclaim System
871	T-944	Dryer Wash Water Treatment
1021	T-1126	Glue Wash Water System
1338	T-1432	Modify Dryers & Scrubber

If there are any questions or comments please contact me.

Very truly yours,



W. J. Pattison, Division Controller  
Gold Beach Plywood, Inc.

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
AUG 04 1986  
AIR QUALITY CONTROL

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 825  
Date of Issue 9-23-77  
Application No. T-908

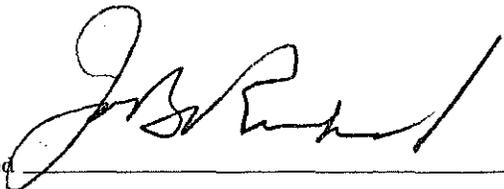
# POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: <b>Champion Building Products P. O. Box 10228 Eugene, Oregon 97401</b>	Location of Pollution Control Facility: <b>Gold Beach, Oregon</b>
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: <b>Glue washdown treatment and recirculation</b>	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <b>December 1972</b>	Placed into operation: <b>January 1973</b>
Actual Cost of Pollution Control Facility: <b>\$ 16,344.00</b>	
Percent of actual cost properly allocable to pollution control: <b>80% or more</b>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air and water or solid waste facility was erected, constructed or installed on or after January 1, 1967, or January 1, 1973 respectively, and on or before December 31, 1980, 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 solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapters 459, 468 and the regulations 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.

Signed   
Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
the 23rd day of September, 1977

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 826  
Date of Issue 9-23-77  
Application No. T-909

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: <b>Champion Building Products P. O. Box 10228 Eugene, Oregon 97401</b>	Location of Pollution Control Facility: <b>Gold Beach, Oregon</b>
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: <b>Installation of three Carter Day baghouses (serial #288, 289, 186) to control emissions from cyclones 1, 2, 4 and 7.</b>	
Type of Pollution Control Facility: <input checked="" type="checkbox"/> Air <input type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <b>May 1974</b>	Placed into operation: <b>August 1974</b>
Actual Cost of Pollution Control Facility: <b>\$ 105,599</b>	
Percent of actual cost properly allocable to pollution control: <b>80% or more</b>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air and water or solid waste facility was erected, constructed or installed on or after January 1, 1967, or January 1, 1973 respectively, and on or before December 31, 1980, 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 solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapters 459, 468 and the regulations 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.

  
Signed \_\_\_\_\_

Title Joe R. Richards, Chairman

Approved by the Environmental Quality Commission on  
the 23rd day of September, 1977

**State of Oregon**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**

Certificate No. 857

Date of Issue 12/16/77

Application No. T-932

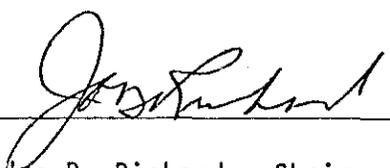
## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Champion International Corp. Champion Building Products P. O. Box 10228 Eugene, Oregon	Location of Pollution Control Facility:  Gold Beach, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  <p style="text-align: center;">New wood waste reclamation system</p>	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input checked="" type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>6/15/76</u> Placed into operation: <u>6/15/76</u>	
Actual Cost of Pollution Control Facility:      \$ <u>427,620.00</u>	
Percent of actual cost properly allocable to pollution control:  <p style="text-align: center;">100%</p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 16th day of December, 19 77

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 871

Date of Issue 1/27/78

Application No. T-944

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Champion International Corporation Champion Building Products Division P. O. Box 10228 Eugene, Oregon 97401 As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	Location of Pollution Control Facility:  Gold Beach Plant
Description of Pollution Control Facility: Veneer dryer washdown water treatment and recirculation system.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste	
Date Pollution Control Facility was completed: <u>4/1/77</u> Placed into operation: <u>4/1/77</u>	
Actual Cost of Pollution Control Facility:      \$ <u>62,624</u>	
Percent of actual cost properly allocable to pollution control:  <p style="text-align: center;"><u>80% or more</u></p>	

In accordance with the provisions of ORS 468.155 et seq., it is hereby certified that the facility described herein and in the application referenced above is a "Pollution Control Facility" within the definition of ORS 468.155 and that the air or water facility was constructed on or after January 1, 1967, the solid waste facility was under construction on or after January 1, 1973, or the noise facility was constructed on or after January 1, 1977, and the facility is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water, noise or solid waste pollution, and that the facility is necessary to satisfy the intents and purposes of ORS Chapter 459, 467 or 468 and the regulations 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.

Signed   
 Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
 the 27th day of January, 1978

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1021  
Date of Issue 11/16/79  
Application No. T-1126

POLLUTION CONTROL FACILITY CERTIFICATE

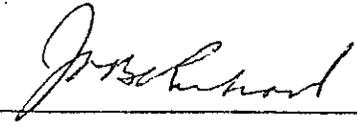
Issued To: Champion International Corporation Champion Building Products P. O. Box 10228 Eugene, Oregon 97440	Location of Pollution Control Facility:  Gold Beach, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility:  Additions to glue spreader wash water system.	
Type of Pollution Control Facility: <input type="checkbox"/> Air <input type="checkbox"/> Noise <input checked="" type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>2/1/78</u>	Placed into operation: <u>2/1/78</u>
Actual Cost of Pollution Control Facility: \$ <u>15,802.00</u>	
Percent of actual cost properly allocable to pollution control:  80% or more	

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 ORS 468.175 and 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 - The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate, elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed   
Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
the 16th day of November, 1979

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No. 1338

Date of Issue 12/4/81

Application No. T-1432

## POLLUTION CONTROL FACILITY CERTIFICATE

Issued To: Champion International Corp. Building Products Division P. O. Box 10228 Eugene, OR <u>97440</u>	Location of Pollution Control Facility:  Gold Beach, Oregon
As: <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Owner	
Description of Pollution Control Facility: Modification of four veneer dryers by providing dryer end seals and installing Burley Industry wet scrubbers on each dryer.	
Type of Pollution Control Facility: <input checked="" type="checkbox"/> Air <input type="checkbox"/> Noise <input type="checkbox"/> Water <input type="checkbox"/> Solid Waste <input type="checkbox"/> Hazardous Waste <input type="checkbox"/> Used Oil	
Date Pollution Control Facility was completed: <u>April 25, 1980</u> Placed into operation: <u>May 21, 1980</u>	
Actual Cost of Pollution Control Facility: \$ <u>611,075.00</u>	
Percent of actual cost properly allocable to pollution control:  <u>80% or more</u>	

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 ORS 468.175 and 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:

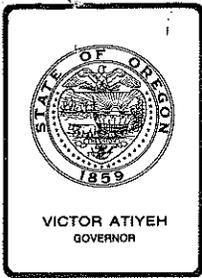
1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation 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 — The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed \_\_\_\_\_

Title Joe B. Richards, Chairman

Approved by the Environmental Quality Commission on  
the 4th day of December, 1981



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item D , October 24, 1986, EQC Meeting

Proposed Adoption of the Slash Burning Smoke Management  
Plan Revisions as an Amendment to State Implementation Plan  
(OAR 340-20-047)

### Background

In November, 1984, the Commission directed staff to meet with the Oregon State Department of Forestry (OSDF) and other agencies to review, update, and improve the Smoke Management Plan (SMP) for prescribed forest land (slash) burning. Such a review was considered timely because the SMP had not been formally reviewed since its adoption in 1972 and parallel efforts were getting underway to develop strategies for protection of visibility in Class I areas. Slash burning is the largest source of particulate emissions in the state.

Oregon law (ORS 477.515) requires that the State Forester and the Department of Environmental Quality (DEQ) approve a plan for managing smoke in areas they designate. The State Forester has promulgated rules to carry out provisions of the plan (OAR 629-43-043, Smoke Management Plan) and administers the program with the help of written procedures called a Directive (1-1-3-411 Operational Details for the Oregon Smoke Management Plan).

A task force was appointed to review the SMP, co-chaired by OSDF and DEQ staff and including representatives from the U. S. Forest Service, Bureau of Land Management, Bureau of Indian Affairs, and private forest industry. Representatives from environmental organizations attended some meetings. The task force met eleven times from March, 1985 to February, 1986 and produced revisions to the SMP rules and a completely revised Directive (1-4-1-601), which were subsequently amended to incorporate provisions specifically related to visibility protection.

The revised SMP and Directive were presented to the Commission (Agenda Item E, June 13, 1986, EQC Meeting) and authorized for public hearings to be held jointly with OSDF, in conjunction with hearings on the proposed Visibility Protection Plan (Agenda Item F, June 13, 1986, EQC Meeting).

Briefly, the proposed revisions would add Astoria, Lincoln City, Newport, and Bend as designated areas for smoke protection. The enforceability of the Plan would be enhanced and the accountability and authority of OSDF in administering the program would be clarified. The Plan would include general commitments to reduce emissions, to develop improved and uniform fuel and emissions estimation methods, to track slash burning activity statewide, and to develop emission limits pursuant to federal Prevention of Significant Deterioration (PSD) requirements. Provisions to implement Class I area visibility protection are also included. There would be a formal review of the Plan and Directive at least every three years.

#### Public Testimony

Five joint public hearings were held with the Oregon State Department of Forestry to receive public comment on the proposed revisions to the Smoke Management plan (SMP) and Directive, and on the Visibility Protection Plan. Attachment 1 summarizes the public testimony received. Key issues are discussed below.

1. The public health effects of slash burning were voiced as a serious concern, particularly the potential for toxic emissions from herbicide-treated units. Several individuals demanded a stop to prescribed burning and opposed the rules as not protective of public health.

The SMP partially addresses health concerns through the objective of preventing smoke from being carried to or accumulating in designated areas and other areas sensitive to smoke. Proposed changes should generally improve air quality by encouraging emissions reductions, slash utilization, and shifts to spring burning, which generally has more favorable ventilation. In addition, there are commitments to increase smoke monitoring efforts, to develop maximum daily and annual emission limit, to address PSD requirements, and to review and update, if necessary, specific limits on tonnages allowed to be burned (based on smoke drift).

Ambient air monitoring in urban and rural areas indicates that slash burning does not cause exceedances of annual and 24-hour National Ambient Air Quality Standards (NAAQS) for health. Preliminary indications are that it should also not cause exceedances of proposed new federal standards for particulate matter (PM-10). Commenters state that standards are not adequately protective of public health, under heavy short-term smoke intrusions. There is currently insufficient information available to support this conclusion. Because of the level of public concern, however, the Department initiated research to help assess the health effects of smoke from slash burning and field burning. In response to the public concern specifically expressed about smoke emitted from chemically treated slash and grass seed field burning, the Department sought and received a federal grant which has enabled us to initiate an evaluation of this concern (including actual field sampling).

2. The Smoke Management Plan should be extended statewide, some urged, as a mechanism for ensuring visibility protection in Class I areas east of the Cascades.

Extending smoke management controls statewide was discussed by the task force and rejected primarily for lack of evidence demonstrating that significant smoke problems exist as a result of prescribed burning outside the restricted area of western Oregon. In addition, burning of agricultural fields and rangeland in eastern Oregon would continue to be significant, but unregulated, sources of smoke. The proposed revisions do contain a requirement for a statewide inventory of prescribed burning which should provide baseline emission information useful for future evaluations. The U.S. Forest Service has recently committed to provide visibility protection from their slash burning smoke during summer restriction period (July 4 to Labor Day). The OSDF and DEQ are committed to reconsidering this issue at the next 3-year review.

3. The Directive should be promulgated as a rule, some testified, arguing that it is only advisory in nature, can be changed without public input, and contains essential elements required by ORS 477.515(3)(b) to be promulgated as rules.

In the Department's judgment, the proposed SMP rules satisfy statutory requirements. The Directive contains administrative and procedural details which are subject to change and would not be appropriate as rules. The Directive is specifically referenced in the rule, however, and a provision requiring its strict compliance is included. It should also be noted that both the proposed SMP and Directive, if approved, will be incorporated into the Oregon State Implementation Plan (SIP) and would be federally enforceable; any subsequent changes resulting in less stringent controls would require a formal SIP revision, which includes public notice and hearings. As a SIP revision, the SMP and Directive are subject to citizen suit for lack of enforcement and compliance. In addition, any changes to the Directive must first be approved by the Director.

4. The enforceability of the Smoke Management Plan is inadequate, according to some who testified that there are not enforcement provisions in the SMP rule.

Ensuring the enforceability of the SMP and OSDF's responsibility for authorizing all burning has been an on-going objective of the Department. The proposed rule contains a provision requiring strict compliance with the rule, the Directive, and the daily burning instructions issued by OSDF. Any exceptions (variances) to the instructions must be authorized by OSDF and recorded. The proposed Directive contains an enforcement section defining what constitutes a violation. In order to evaluate overall program compliance, new language is proposed in the Directive (page 6, section 8, Monitoring) requiring the State Forester to carry out an audit of approximately one percent of the slash units burned each year. DEQ staff may participate in some of these audits and findings will be reported.

In addition, OSDF will seek from the 1987 Legislature the authority to assess civil penalties for Forest Practices Act violations, which would also extend to smoke management violations.

Proposed revisions to the Smoke Management Plan (OAR 629-43-043) are presented in Attachment 2. The proposed Directive 1-4-1-601 (including new appendices) is an entirely new document and is presented in Attachment 3. The existing Directive 1-1-3-411 proposed to be replaced is presented in Attachment 4.

5. The Smoke Management Plan is too restrictive was the testimony of a number of forest land managers.

This concern received considerable attention during discussions with the smoke management task force. It was the consensus of that group that the proposed changes represent a reasonable and balanced compromise between the concerns of the forest industry and those of the public, particularly as a 3-year plan.

#### Summation

1. At the direction of the Commission, Department staff met with the Oregon State Department of Forestry (OSDF), other land management agencies, and the forest industry to review the rules and guidelines governing slash burning.
2. Proposed revisions to the Smoke Management Plan and Directive, tentatively endorsed by both Departments, were presented to the Commission and authorized for public hearings on June 13, 1986. Joint public hearings with OSDF (in conjunction with hearings on the Visibility Protection Plan) were held in August 1986 at five locations, resulting in testimony from 235 persons.
3. Key testimony received at the public hearings is discussed herein. In response to testimony, a change has been incorporated into the Directive requiring compliance monitoring (auditing) of slash burns.
4. The Department believes the SMP and Directive meet statutory requirements and, as SIP revisions, are subject to federal enforcement and citizen suit for failure to implement or enforce.

#### Director's Recommendation

It is recommended that the Commission adopt the revised Smoke Management Plan and Directive as an amendment to the State Implementation Plan (OAR 340-20-047).



Fred Hansen

#### Attachments:

1. Hearings Officer's Report
2. Proposed Smoke Management Plan Administrative Rule (OAR 629-43-043)
3. Proposed Directive 1-4-1-601 Operational Guidance for the Oregon Smoke Management Program
4. Directive 1-1-3-411 Operational Details for the Oregon Smoke Management Plan

Sean O Connell:s  
AS3900  
686-7837  
October 2, 1986

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

TO: Environmental Quality Commission

DATE: September 16, 1986

FROM: John Core, DEQ Hearings Officer  
William Hughes, DOF Hearings Officer

SUBJECT: Report for Hearings Held August 5, 7, 11, 13, and 15, 1986

Proposed Revisions to the State Air Quality Implementation Plan (OAR 340-20-047) to Address Visibility Protection in Class I Areas and Proposed Revisions to the State of Oregon Department of Forestry Smoke Management Plan (OAR 629-43-043).

Summary of Procedure

Joint hearings conducted by the Department of Environmental Quality and the Department of Forestry were held to receive public comment on the proposed Visibility Protection and Smoke Management (SMP) plans. Written and oral testimony was received from 235 persons during five public hearing conducted August 5th (Portland), 7th (Springfield), 11th (Bend), 13th (Medford) and 15th (Newport). John Core, Senior Environmental Analyst, Air Quality Division, Department of Environmental Quality and William Hughes, Department of Forestry presided at all hearings. A total of 198 persons attended the five hearings.

Summary of Testimony

Comment on the proposed rules can be best organized by summarizing the four positions brought out in the testimony; (1) those in support of the proposed rules, (2) those opposed to the rules as too restrictive to the forest land managers; (3) those opposed because the rules are not sufficiently protective of Class I Area visibility or public health and (4) those that held no specific position on the proposed rules but wished to comment on specific elements of the proposed rules. Forty-nine percent of those commenting on the rules supported adoption as proposed, 32 % opposed adoption and 19 % held no specific position on rule adoption. Of those that oppose adoption, 60 % felt that they would place severe restrictions on the forest land managers ability to burn slash and 40 % opposed the rules feeling that did not offer sufficient visibility and/or public health protection. The position of each of these groups is summarized below. A listing of all persons submitting comment is attached. Copies of the written testimony are on file with the Department of Environmental Quality and the Department of Forestry.

### Summary Testimony in Support Of The Proposed Rules

Those in support of rule adoption include the U.S.D.A. Forest Service, the National Park Service, Bureau of Land Management, the Oregon Seed Council, Oregon Forest Industries Council, Lane Regional Air Pollution Control Authority, Union County Seed Growers and numerous other forest product industry groups and public members. Most of those supporting rule adoption did so with reservation, noting serious concerns on the impact of the rules on the ability of forest land managers to burn slash and sustain forest productivity at an acceptable cost. Although the principal agencies affected by these rules (Forest Service, BLM and Oregon Forest Industries) submitted lengthy testimony outlining concerns and changes they would prefer to see in the rules, they support adoption in view of the 3 year limitation on the Visibility Protection Plan and in the belief that the proposed rules represent the best compromise that could be reached following an extended period of study and negotiation.

### Summary Testimony In Opposition As Too Restrictive

Those opposed to the proposed rules include numerous forest products industries, small woodland owners and a segment of the public. These groups feel that forest slash burning, as administered under the current Smoke Management Plan, is already too restrictive, too costly to the forest land manager and will result in reduced forest productivity resulting in major losses in forestry jobs. The testimony focuses on the importance of forest prescribed burning to the industry, the lack of alternatives to burning and the cumulative effects of spotted owl protection, limitations on the use of herbicides, protection of riparian zones and smoke management in reducing necessary forestry burning. Concern was expressed that resultant buildup of unburned slash areas could become a hazard for future major wildfires. Many feel that the proposed rules are unnecessary, overly restrictive or unreasonable.

### Summary Testimony In Opposition As Insufficiently Restrictive

Those opposing the rules as not providing enough protection of Class I Area visibility and/or public health include the Oregon Environmental Council, the American Lung Association, the Oregon Natural Resource Council, Sierra Club of Oregon, Coastal Citizens Against Pesticides, other environmental groups and a segment of the public. Testimony relative to visibility protection centers on (a) extension of the protection period from the summer months to the entire year, (b) protection of all Oregon wilderness lands under the rule (the 22 new wilderness areas designated in the 1984 Oregon Wilderness Bill are not currently Class I Areas), (c) designation of all Class I Areas as "Smoke Sensitive" in the SMP, (d) deletion of the hardwood conversion exemption and (e) changes in the "emergency clause" to tighten definition of terms. Eighteen of the 29 comments in this group were concerned about health effects caused by prescribed forestry burning and/or health effects caused by the burning of forest residues that had been treated with herbicides. Testimony relative to the Department of

Forestry's SMP noted a lack of enforcement provisions in the SMP rule, need to include the Directives in the rule and extension of the SMP throughout the state.

### Summary Of Other Testimony

Numerous comments were received from the forest products and public sectors regarding specific elements of the proposed rules, but did not indicate overall support or opposition. Many of these comments noted the necessity to continue forest prescribed burning and the importance of the forest products industry to Oregon's economy. Others were concerned with nuisance or health effects related to field and prescribed burning smoke.

### Summary Of Key Issues

The following summarizes key issues raised in the hearing testimony. Because of the volume of comment received, only the principal issues are summarized here.

#### 1. Cost/Benefit Study

DEQ, during development of the Visibility Protection Plan, commissioned a study of the cost of forest prescribed burning control alternatives and visibility/health benefits likely to result from implementation of the alternatives. Results of the cost/benefit study were a primary focus of comment. Forest land managers felt that the study dramatically underestimated costs to the industry, was significantly flawed in its estimate of visibility benefits and seriously underestimated costs associated with the carryover of unburned acreage to the next year. Opponents to burning, however, feel that the visibility benefits reported are greatly underestimated since the study did not include benefits from reductions in burning related to wildlife habitat, water quality and forest productivity. Benefits to the public living in urban areas outside of the Willamette Valley were also not included in the analysis.

#### 2. Summer Burning Prohibition

Many forest land managers commented that the objectives of the Visibility Protection Plan would be better served through a program to apply smoke management, rather than prohibit burning, during the July 4-Labor Day period. Citing the prohibition as "unnecessarily restrictive", comment was made that such a prohibition seriously affects scheduling flexibility and increases costs while stopping burning in areas (Mt. Hood to Mt. Jefferson) where smoke can be easily kept out of Class I Areas using smoke management methods.

#### 3. Coastal Burning Smoke Management

Comment from forest land managers note concern that restrictions on coastal burning designed to protect Class I Areas are of questionable value as

these lands are 75 miles away. A better technical demonstration of the contribution of coastal burning smoke to Class I Area visibility needs to be made before additional restrictions are placed on coastal burning. The 2-day upper level wind forecasting requirement is likely not possible with any degree of reliability.

#### 4. Health Effect Caused By Forest Prescribed Burning Smoke.

Serious concern was voiced by 18 persons that prescribed burning smoke, especially smoke that is emitted from slash units that had previously been treated with herbicides, is a major public health problem. Testimony was offered that the burning of herbicide-treated units results in exposure of the public to toxic pollutants, including dioxin and herbicide products of combustion. Several demanded a stop to prescribed forest burning, opposing the proposed rules as not protective of public health. Other technical testimony was received that there was no public health problem and that emissions from herbicide-treated units did not represent a health risk.

#### 5. Scope of the Visibility Protection Plan

Objection was expressed that the proposed protection plan does not include the 22 new wilderness areas created by the 1984 Congress and that there was no DEQ commitment to begin the process to redesignate these land to Class I status--thereby including them under the Visibility Protection Plan. Additionally, not all Oregon Class I lands are set aside as "Smoke Sensitive" areas nor does the Plan protect Class I Areas in eastern Oregon (Eagle Cap and Strawberry Mountain Wilderness Areas). Further, the Plan protects visibility during only the summer months rather than year around. Many felt that the "Emergency Clause" provisions of the Plan are vaguely written and that the exemption for hardwood conversion burning should be deleted.

#### 6. Dept. of Forestry Smoke Management Plan Deficiencies

Considerable testimony was offered that there are no enforcement provisions within the SMP rule (only in the Directives) and that the "heart" of the SMP is found in the Directives which are only advisory in nature. Further, since the Directives can be changed by the State Forester with no public input, the entire SMP (Rule and Directives) should be promulgated as an administrative rule. Because of these factors, many felt that the SMP clearly violates ORS 477.515(3)(b) which requires the State Forester to promulgate SMP rules. Others felt that the objectives of the SMP "to maximize the opportunity for forest land burning" are contradictory and objected to the purpose of the SMP ("simply moving smoke around") rather than making emission reductions.

#### 7. Field Burning Provisions of the Visibility Plan

Although a great deal of support for the Willamette Valley field burning provisions of the Plan was offered by the Oregon Seed Council and the public sector, the Council has requested that an "emergency" clause permitting weekend burning during the July 4-Labor Day period be included in the Plan. Under this clause, burning would be permitted in the event that unusual weather conditions have prohibited accomplishment of a stated number of acres by mid-August, paralleling the slash burning "emergency" clause for forestry burning. Others have commented that the agricultural field burning throughout the state should be covered by the Plan to assure visibility protection in Eastern Oregon Class I Areas.

#### 8. Other Issues

Comment has been received that (a) the visibility monitoring program is inadequate to identify coastal prescribed burning smoke impacts within the Cascade wilderness areas; (b) national historical areas (e.g., Jacksonville) and National Monuments (e.g. Oregon Caves) must be protected under the proposed rules; (c) all significant actions in which federal agencies participate must be covered by an Environmental Impact Statement as required under the National Environmental Policy Act (NEPA) and (d) the proposed rules are not consistent with Planning Goals 3 (Preservation of Agricultural Lands), 4 (Conservation of Forest Lands), 5 (Consistency with County Comprehensive Plans) and 9 (Economy of the State).

Attachment  
AS3832

## VISIBILITY PROTECTION AND SMOKE MANAGEMENT PLAN HEARINGS SUMMARY

KEY: RULE POSITION: S=SUPPORTS, O=OPPOSED, N=NO POSITION

HEARING: P=PORTLAND, S=SPRINGFIELD, B=BEND, N=MEDFORD, N=NEWPORT  
W=WRITTEN

NO.	NAME	AFFILIATION	CITY	HEAR- ING
1	JIM SPACE	U.S.D.A. FOREST SERVICE	PORTLAND	P
2	DAVE NELSON	OREGON SEED COUNCIL	SALEM	P
3	JOE JACOBS	OREGON SEED COUNCIL	SALEM	P
4	AMOS FUNRUE	GRASS SEED FARMER	WILLAMETTE VAL.	P
5	HOWARD HOPKINS	WOODLAND OWNER	MILWAUKIE	P
6	JEAN MEDDAUGH	OR ENVIRON COUNC.	PORTLAND	P
7	JOHN McGHENEY	SIMPSON LUMBER	FOREST GROVE	P
8	ALTON CRONK	CONSULTANT	PORTLAND	P
9	ROBERT RIVERS	BLM	PORTLAND	P
10	ROBERT SMITH	PUBLIC	???	P
11	DAVE JESSUP	OR FOREST IND COUNC	SALEM	P
12	ALAN THAYER	CONSULTANT	VANCOUVER, WN	P
13	LOUIS REINDEHL	PUBLIC	PORTLAND	P
14	JEFF MADISON	CHAMPION INT'L	MAPLETON	S
15	DON FISHER	BOHEMIA LUMBER	EUGENE	S
16	BOB KINTIGH	WOODLAND OWNER	SPRINGFIELD	S
17	DON ARKELL	LANE REGIONAL APA	SPRINGFIELD	S
18	L.M. GIUSTINA	WOODLAND OWNER	EUGENE	S
19	PETER SORENSON	PUBLIC	EUGENE	S
20	BILL JOHNSON	PUBLIC (ENUF)	FOSTER	S
21	ROBERT MAGATHON	E. LANE FOREST PROT.	SPRINGFIELD	S
22	LEONARD GONDEK	ROSEBURG RESOURCES	ROSEBURG	S
23	DWIGHT COON	GRASS SEED GROWER	ALBANY	S
24	NAN COHEN	PUBLIC	EUGENE	S
25	RICHARD GOLD	PUBLIC	EUGENE	S
26	EARL BENEDICT	SKOOKUM REFOREST.	SPRINGFIELD	S
27	STEPHEN CAFFERATA	WEYERHAUSER	SPRINGFIELD	S
28	SUSANNA DEFAZIO	PUBLIC	WALTON	S
29	NORMA GRIER	NCAP	EUGENE	S
30	JUNE ANN LOCKLEAR	AM. LUNG ASSN.	EUGENE	S
31	WILLIAM McLOUGHLIN	BLM-ROSEBURG	ROSEBURG	S
32	D.J. VAN CISE	PUBLIC	BEND	B
33	JIM BLACK	DESCHUTES FARM BUREAU	BEND	B
34	DON TRYDN	OR. NATURAL RES. COUN.	BEND	B
35	MARTIN LUGAS	KLAMATH FOREST PROTEC.	KLAMATH FALLS	B
36	RUSS ANDERSON	CHAMPION INT'L	BEND	B
37	OMER FULS	PUBLIC	BEND	B
38	SUE JOERGER	SO. OR TIMBER ASSN	MEDFORD	N
39	RUSS McKINLEY	MEDFORD C OF C	MEDFORD	N
40	DAVID McNABB	OSU COLL. FORESTRY	CORVALLIS	N
41	STEPHEN HOBBS	OSU COLL. FORESTRY	CORVALLIS	N
42	BRUND MEYER	ROGUE FOREST PROT. ASSN	MEDFORD	N
43	KATHI JOY	ROSEBURG C OF C	ROSEBURG	N
44	RICK SOHN	LONE ROCK TIMBER	ROSEBURG	N
45	MYRA ERWIN	LEAGUE OF WOMEN VOTERS	MEDFORD	N
46	BILL CARLSON	HUSKY INDUSTRIES	WHITE CITY	N
47	TOM ESPINOSN	PUBLIC	MEDFORD	N

## VISIBILITY PROTECTION AND SMOKE MANAGEMENT PLAN HEARINGS SUMMARY

KEY: RULE POSITION: S=SUPPORTS, O=OPPOSED, N=NO POSITION

HEARING: P=PORTLAND, S=SPRINGFIELD, B=BEND, M=MEDFORD, N=NEWPORT  
W=WRITTEN

NO.	NAME	AFFILIATION	CITY	HEAR- ING
48	CHRISTOPHER BRATT	HEADWATERS, INC	MEDFORD	M
49	DAVID JONES	BLM-MEDFORD	MEDFORD	M
50	HARDY GLASCOCK	WOODLAND OWNER	CORVALLIS	<del>M</del>
51	JANE NEWTON	PUBLIC	PHILOMATH	N
52	JOHN ROLLIN	CHAMPION INT'L	MAPLETON	N
53	WILLIAM TRUAX	BOISE CASCADE	MONMOUTH	N
54	JOHN WASHBURN	TIMES MIRROR TIMBER	TILLAMOOK	N
55	LOCHA PITTS	PUBLIC	BANDON	N
56	LINDA STEWARD	TIMES MIRROR TIMBER	TILLAMOOK	N
57	SHANNON WHITE	TIMES MIRROR TIMBER	TOLEDO	N
58	RANDY HEREFORD	STARKER FORESTS	CORVALLIS	N
59	JOHN WALSTAD	OSU DEPT FORESTRY	CORVALLIS	N
60	LOGAN NORRIS	OSU DEPT FORESTRY	CORVALLIS	N
61	RANDY BECKER	PUBLIC	SEAL ROCK	N
62	FRANK DOST	OSU DEPT AG. CHEM.	CORVALLIS	N
63	BOB CRAIN	DOUGLAS CTY LAND DEPT.	ROSEBURG	N
64	DAVE JESSUP	OR. FOREST IND. COUNCIL	SALEM	N
65	ERIC BUNDY	CONSULTANT FORESTER	NEWPORT	N
66	LEE MILLER	MILLER TIMBER SERV.	NEWPORT	N
67	SUSAN SWIFT	PUBLIC	NEWPORT	N
68	PAUL MERRALL	PUBLIC	TIDEWATER	N
69	CAROL VAN STRUM	PUBLIC	TIDEWATER	N
70	NORRIS BERGMAN	WILLAMETTE INDUSTRIES	ALBANY	N
71	JIM DENISON	TIMES MIRROR TIMBER	TOLEDO	N
72	BUSTER KITTEL	PUBLIC	WALDPORT	N
73	KATHY WILLIAMS	PUBLIC (CCAP)	SEAL ROCK	N
74	DAVE PICKERING	PUBLIC (ONCAP)	LINCOLN CITY	N
75	SCOTT ASHCOM	OR. FARM BUREAU FED.	SALEM	N
76	DENNIS CREEL	HAMPTON TREE FARMS	WILLAMINA	N
77	ANN HARDY	PUBLIC	ROSE LODGE	N
78	MARGIE MORRISON	PUBLIC	ROSE LODGE	N
79	DOROTHY PATTERSON	PUBLIC	OTIS	N
80	DEBBIE PICKERING	PUBLIC	OTIS	N
81	RAY AYERS	REX TIMBER CO.	TOLEDO	N
82	STEPHEN TEDROW	PUBLIC	TIDEWATER	N
83	ROBERT RUBIN	PUBLIC	WALDPORT	N
84	DIANE GEORGE	PUBLIC	OREGON CITY	W
85	JACK & JUDY BOLING	PUBLIC	GRANTS PASS	W
86	CANDICE GUTH	PUBLIC	TOLEDO	W
87	ROBERT LOWERY	WILLAMETTE SEED CO.	ALBANY	W
88	DAN YOUNG	OR. REGION. CHERRY COMM	SALEM	W
89	???	KLAMATH CTY WEED CONTROL	KLAMATH FALLS	W
90	GREG LOBERG	NPI AG. SERVICE CORP.	SALEM	W
91	DANIEL GOLTZ	BURRILL LUMBER CO.	MEDFORD	W
92	THOMAS HAY	LONGVIEW FIBRE CO.	LONGVIEW, WN.	W
93	DON CLITHERO	ROSEBURG C DF C	ROSEBURG	W
94	CHARLES CHANDLER	CHANDLER HEREFORDS, INC	BAKER	W

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NO.	NAME	AFFILIATION	CITY	HEAR- ING
95	JIM GEISINGER	WEST.FOREST IND. ASSN.	PORTLAND	W
96	STEVEN AKEHURST	ROSBORO LUMBER	SPRINGFIELD	W
97	MIKE QUIGLEY	PUBLIC	SUNRIVER	W
98	JOHN PERRY	INT'L PAPER CO.	VENETA	W
99	WILLIAM BRIGGLE	NATIONAL PARK SERVICE	SEATTLE, WN	W
100	JOHN HASSINGER	UNION CTY SEED GROWERS	???	W
101	BILL WEATHERFORD	UNION CTY SEED GROWERS	ELGIN	W
102	TONY PUCKETT	UNION CTY SEED GROWERS	???	W
103	MIKE GULGOW	UNION CTY SEED GROWERS	LA GRANDE	W
104	LUTHER SUTTE	UNION CTY SEED GROWERS	COVE	W
105	CRAIG NEGLATO	UNION CTY SEED GROWERS	???	W
106	RANDY GLEN	UNION CTY SEED GROWERS	???	W
107	EDWIN HODFUAGLER	UNION CTY SEED GROWERS	???	W
108	CARL BERKLEL	UNION CTY SEED GROWERS	???	W
109	SYLVAN RASMUSSEN	UNION CTY SEED GROWERS	???	W
110	RIHEL RASMUSSEN	UNION CTY SEED GROWERS	???	W
111	JOHN RAUM	UNION CTY SEED GROWERS	???	W
112	GEORGE REYES JR.	UNION CTY SEED GROWERS	???	W
113	GEORGE REYES	UNION CTY SEED GROWERS	???	W
114	DALE EISIMINGER	UNION CTY SEED GROWERS	???	W
115	KATHY BAYLINK	UNION CTY SEED GROWERS	SUMMERVILLE	W
116	WILLIAM HOWELL	UNION CTY SEED GROWERS	???	W
117	L.R. STARR	UNION CTY SEED GROWERS	???	W
118	STEVE MARKER	UNION CTY SEED GROWERS	???	W
119	RON WISTENIKA	UNION CTY SEED GROWERS	???	W
120	NAME ILLEGIBLE	UNION CTY SEED GROWERS	???	W
121	GARY HOBERG	PUBLIC	FLORENCE	W
122	RON GRAY	INTERNATIONAL PAPER	GARDINER	W
123	LIZ VAN LEUWEN	STATE REPRESENTATIVE	SALEM	W
124	HOWARD HOPKINS	LONGVIEW FIBRE CO.	VERNONIA	W
125	KEVIN MCNULLEN	PUBLIC	FLORENCE	W
126	SAMUEL DONOVAN	PUBLIC	???	W
127	SHASTA MCNULLEN	PUBLIC	FLORENCE	W
128	WANDA HOBERG	PUBLIC	FLORENCE	W
129	HOBE JONES	WILBUR-ELLIS CO.	PORTLAND	W
130	CAROL CURRY	PUBLIC	EUGENE	W
131	BRUCE ALBER	WILBUR-ELLIS	PORTLAND	W
132	GENEVIEVE SAGE	AMERICAN LUNG ASSN.	MEDFORD	W
133	MARK SWISHER	ROGUE VALLEY AUDUBON SOC.	TALENT	W
134	LEVERETTE CURTIS	PUBLIC	SPRINGFIELD	W
135	DAN SANDS	VALLEY CHEMICAL CO.	LAGRANDE	W
136	CURT HOWELL	MT. EMILY SEED, INC.	IMBLER	W
137	JAMES BUTLER	STAYTON CANNING CO.	STAYTON	W
138	THOM NELSON	HODD RIVER GROWERS	ODELL	W
139	BRUND MEYER	MEDFORD CORP.	MEDFORD	W
140	RONALD YOCKIM	DR JOHNSON LUMBER	RIDDLE	W
141	KURT MULLER	FORESTER	???	W

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NO.	NAME	AFFILIATION	CITY	HEAR- ING
142	RON WEINHOLD	SUPERIOR TIMBER CO.	GLENDALE	W
143	EDWARD WALL	GREGORY FOREST PROD.	GLENDALE	W
144	JOHN&PHYLLIS STEWART	PUBLIC	SALEM	W
145	MR&MRS Wm SPARHIM	PUBLIC	BROWNSVILLE	W
146	LESLIE LEWIS	PUBLIC	???	W
147	ROSE DICKERSON	PUBLIC	SHEDD	W
148	JACK KALENA	FARMER	???	W
149	SAMUEL DONAVAN	PUBLIC	GRANTS PASS	W
150	ELMA JEAN CUTLER	PUBLIC	SWEET HOME	W
151	SHIRLEY DAVIS	PUBLIC	LEBANON	W
152	RICHARD HALPASS	OREGON GOLF COURSE ASSN	VANCOUVER, WN	W
153	DAVID SCHUDEL	HOLIDAY TREE FARM	CORVALLIS	W
154	MICHELLE BOUVIA	PUBLIC	ALBANY	W
155	DON HENDERSON	PUBLIC	DONALD	W
156	C. BALDWIN	PUBLIC	STAYTON	W
157	CAROL HANSEN	LANE CTY. CDW BELLES	EUGENE	W
158	NEVEN&LAFONA JENSEN	JENSEN'S POLLED HEREFORDS	EUGENE	W
159	JERRY BOLLEN	WEYERHAUSER	SPRINGFIELD	W
160	VIRGINIA DAGG	LAGRANDE C OF C	LAGRANDE	W
161	JOHN MORTON	SHELL OIL CO.	ATHENA	W
162	LYNNE BURNHARDT	PUBLIC	DEXTER	W
163	STEVE GAPP	WESTERN FARM SERVICES	TANGENT	W
164	TOM THOMPSON	AGRICULTURAL CONSULTANT	PENDLETON	W
165	DAVID KEISER	KOGAP MANUFACTURING	MEDFORD	W
166	J. ALLAN BARKER	PUBLIC	STATE OF VA.	W
167	JAMES HILL JR.	PUBLIC	ARCH CAPE	W
168	DON BURLINGHAM	WOODBURN FERTILIZER	WOODBURN	W
169	CLIFF PARKER	LANDSCAPE SPRAY SERV.	AMITY	W
170	DASHIL HUMPHREY	PUBLIC	AUNSVILLE	W
171	DAVID DIETZ	OREGON.FOR FOOD & SHELTER	SALEM	W
172	ANN KLOKA	SIERRA CLUB	PORTLAND	W
173	DELBERT GLASER	GRASS SEED GROWER	???	W
174	STEVE MASTERS	BLUE MT. SEED, INC.	IMBLER	W
175	STEPHEN CAFFERATA	WEST.LANE FOREST PROT.ASSN	VENETA	W
176	ADELE NEWTON	LEAGUE OF WOMEN VOTERS	SALEM	W
177	RUSSELL McKINLEY	BOISE CASCADE	MEDFORD	W
178	BERT HOCKETT	SWANSON BROS. LUMBER CO.	NOTI	W
179	GENE&ROSEALE CLEMENS	PUBLIC	PORTLAND	W
180	HELEN SCHOTT	PUBLIC	McMINNVILLE	W
181	JAMES AGEE	NATIONAL PARK SERVICE	SEATTLE, WN	W
182	JEANNE&SCOTT FITTERER	PUBLIC	LAGRANDE	W
183	WALT SHEARARD	PUBLIC	REEDSPORT	W
184	JOHN CHARLES	OREGON ENVIRON COUNCIL	PORTLAND	W
185	DARLENE LIND	LIND ENTERPRISES	SHERWOOD	W
186	JODY PUPER	PUBLIC	JUNCTION CITY	W
187	KAY KING	PUBLIC	FLORENCE	W
188	JOHN THOMPSON	PUBLIC	???	W

## VISIBILITY PROTECTION AND SMOKE MANAGEMENT PLAN HEARINGS SUMMARY

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NO.	NAME	AFFILIATION	CITY	HEAR- ING
189	GERALD GRUBER	INDUST. FOREST ASSN	EUGENE	W
190	CONNIE YEAKLEY	AMERICAN LUNG ASSN.	COVE	W
191	RICHARD BEEBY	CHAMPION INTERNATIONAL	ROSEBURG	W
192	ANNA BECHTEL	PUBLIC	???	W
193	PRISCILLA COE	PUBLIC	LAGRANDE	W
194	HAL ROSS	ODIN CORP	NEWPORT	W
195	DEAN PIHLSTROM	DEAN PIHLSTROM, INC.	NEWPORT	W
196	WILLIAM POWELL	UPPER-ROGUE INDEPENDENT	EAGLE POINT	W
197	DALE LEDYARD	INTERNATIONAL PAPER	GARDINER	W
198	ROB FRERES	FRERES LUMBER CO.	LYONS	W
199	CLIFFORD LANSDON JR	SUPERIOR LUMBER CO.	GLENDALE	W
200	CHLOE LARVIK	GRANDE RONDE RES. COUNCIL	LAGRANDE	W
201	WILSON BUMP	GRASS SEED GROWER	MONMOUTH	W
202	SANDRA DIEDRICH	COOS-CURRY COG	COOS BAY	W
203	JAMES PIERCE	PUBLIC	EUGENE	W
204	MRS TOM LAFOLLETT	PUBLIC	CANBY	W
205	KAREN VALLAD	OREGON WOMEN FOR TIMBER	SWEET HOME	W
206	CAROL CURRY	PUBLIC	EUGENE	W
207	WANDA HOBERG	PUBLIC	FLORENCE	W
208	JUANITA DAVIS	PUBLIC	CORVALLIS	W
209	ROBERT WATSON	SPAULDING & SONS	GRANTS PASS	W
210	NOLA MILLHOUSER	POLK SOIL & WATER CONSV.	DALLAS	W
211	PAUL RUDD	UNION CTY SEED GROWERS	???	W
212	SHIRLEY DAVIS	PUBLIC	LEBANON	W
213	CINDY PAYNE	PUBLIC	MAPLETON	W
214	ELVAN HUNTINGTON	PUBLIC	MAPLETON	W
215	DAN BORLAND	PUBLIC	VENETA	W
216	DEL PHELPS	PUBLIC	FLORENCE	W
217	ANNA MANISON	PUBLIC	MAPLETON	W
218	DIANE MILLER	PUBLIC	CORVALLIS	W
219	GILBERT WEATHERSPOON	UNION CTY SEED GROWERS	???	W
220	GEORGE ROYER	PUBLIC	INBLER	W
221	DIANE MILLER	PUBLIC	CORVALLIS	W
222	GRANT&HELEN HENDERSON	UNION CTY SEED GROWERS	???	W
223	DON STARR	UNION CTY SEED GROWERS	???	W
224	RALPH RHODES	SKOOKUM REFORESTATION	SPRINGFILED	W
225	JUDY ROTONDI	PUBLIC	BEND	W
226	NANCY CHASE	PUBLIC	OTIS	W
227	HAROLD CHRISTIANSEN	PUBLIC	OTIS	W
228	HAL ROSS	ODIN CORP.	ELGIN	W
229	BERNARD HUG JR.	FARMER	ELGIN	W
230	H.WAYNE BOLLENBAUGH	PUBLIC	???	W
231	DELBERT&LOUISE COX	PUBLIC	ALBANY	W
232	MARTI KIMLER	PUBLIC	BEND	W
233	ALAN TRACY	SIERRA CLUB	BEND	W
234	TINA McGEARY	LEAGUE WOMEN VOTERS	BEND	W
235	EDWARD STYSKEL	PUBLIC	BEND	W

FINAL DRAFT  
5/19/86

## SMOKE MANAGEMENT PLAN ADMINISTRATIVE RULE

(Including Visibility)

## Smoke Management Plan

629-43-043 (1) Objective: To [keep] prevent smoke resulting from burning on forest lands from being carried to or accumulating in designated areas (exhibit 2) or other areas sensitive to smoke[.], and to provide maximum opportunity for essential forest land burning while minimizing emissions, to coordinate with other state smoke management programs, and to conform with state and federal air quality and visibility requirements.

## (2) Definitions:

(a) "Deep mixed layer" extends from the surface to 1,000 feet or more above the designated area ceiling.

(b) "Smoke drift away" occurs where projected smoke plume will not intersect a designated area boundary downwind from the fire.

(c) "Smoke drift toward" occurs when the projected smoke plume will intersect a designated area boundary downwind from the fire or when wind direction is indeterminate due to wind speed less than 5 mph at smoke vent height.

(d) "Smoke vent height" - level, in the vicinity of the fire, at which the smoke ceases to rise and moves horizontally with the wind at that level.

(e) "Stable layer of air" - a layer of air having a temperature lapse rate of less than dry adiabatic (approximately 5.5°F, per 1,000 feet) thereby retarding [either] upward [or downward] mixing of smoke.

(f) "Tons available fuel" - an estimate of the tons of fuel that will be consumed by fire at the given time and place. [Low volume is less than 75 tons per acre, medium volume 75 to 150 tons per acre, and high volume over 150 tons per acre.]

(g) "Residual smoke" - smoke produced after the initial fire has passed through the fuel.

(h) "Field administrator" - a forest officer or federal land administrator who has the direct responsibility for administering burning permits on a unit of forest land within the boundaries of an official fire district.

(i) "Restricted area" - that area delineated in Exhibit 2 for which permits to burn on forest land are required year round, pursuant to rule 629-43-041.

(j) "Designated area" - those areas delineated in Exhibit 2 as principal population centers.

(k) "Heavy use" - unusual concentrations of people using forest land for recreational purposes during holidays, special events.

(l) "Major recreation area" - areas of the state subjected to concentrations of people for recreational purposes.

(m) "State Forester" means the State Forester or delegated Department of Forestry employe representative.

(n) "Instructions" means the specific burn authorizations and weather discussions issued and disseminated as needed by the State Forester.

(o) "Smoke Management Plan" means the administrative rule approved by the State Forester and the Department of Environmental Quality and administered by the State Forester to control prescribed burning on forest lands.

(p) "Smoke Management Directive 1-4-1-601", as approved by the Department of Environmental Quality, is the Department of Forestry's operational guidance for administration of the Oregon Smoke Management Program.

(q) "Other Areas Sensitive to Smoke" are intended to consider specific recreation areas during periods of heavy use by the public such as coastal beaches on special holidays, federal mandatory Class I areas during peak summer use, special events. All Oregon and Washington Class I areas shall be considered as areas sensitive to smoke during the visibility protection period, defined in the Oregon Visibility Protection Plan, OAR 340-20-047, Sec. 5.2.

(3) Control:

(a) The State Forester is responsible for the coordination and control of the smoke management plan. The plan applies [statewide] to the restricted area set forth in Exhibit 2 with full interagency cooperation with the U.S.D.A., Forest Service, Bureau of Land Management, U. S. Fish and Wildlife Service, Bureau of Indian Affairs, private forest [industry] landowners, and the Department of Environmental Quality. The smoke management plan, Department of Forestry Directive 1-4-1-601 and

the Smoke Management instructions (and authorized variances) issued pursuant to the plan, shall be strictly complied with.

(b) Certain "designated areas" are established in consultation with the Environmental Quality Commission. [The major objective of smoke control efforts will be to keep smoke from forest land burning out of these designated areas.] Exhibit 2 delineates designated areas and specified ceilings.

(c) During periods of heavy use, major recreation areas in the state shall be provided the same consideration as "designated areas". Other areas sensitive to smoke shall be provided the same consideration as designated areas.

(d) The Smoke Management Plan shall be operated in a manner consistent with the requirements of the Oregon Visibility Protection Plan for Class I areas (OAR 340-20-047, Sec. 5.2).

(4) Administration:

(a) The State Forester, in developing instructions; and each field administrator issuing burning permits under this plan [will] shall manage the prescribed burning on forest land in connection with the management of other aspects of the environment in order to maintain a satisfactory atmospheric environment in designated areas (Exhibit 2). Likewise, this effort [may] shall be applied in special situations where local conditions warrant and that are not defined as designated areas but nevertheless are sensitive to smoke. The development of instructions and [A] accomplishment of burning will entail consideration of air quality conditions and weather forecasts (including burning forecasts and plans of the Department of Environmental Quality and the Washington Department of Natural

Resources), acreages involved, amounts of material to be burned, evaluation of potential smoke column vent height, direction and speed of smoke drift, residual smoke, mixing characteristics of the atmosphere, and distance from the designated area of each burning operation. [Designated areas are outlined and vertical extents or ceilings are indicated in Exhibit 2).]

(b) The State Forester and [E] each field administrator [will] shall evaluate downwind conditions prior to implementation of burning plans. When the State Forester or a field administrator determines that visibility in a designated area, or other area sensitive to smoke is already seriously reduced or would likely become so with additional burning, or upon notice from the State Forester through the Protection Division [of Fire Controll], or upon notice from the State Forester following consultation with the Department of Environmental Quality that air in the entire state or portion thereof is, or would likely to become adversely affected by smoke, the affected field administrator [will] shall terminate burning. Upon termination, any burning already under way will be completed, residual burning will be mopped up as soon as practical, and no additional burning will be attempted until approval has been received from the State Forester.

(5) Reports: Field administrators [will] shall report daily at such times and in such manner as required by the State Forester covering their daily burning operations. Any wildfire that has the potential for smoke input into a designated or smoke sensitive area [will] shall be reported immediately to

the State Forester's office. The State Forester shall report to the Department of Environmental Quality each day on a timely basis its forecast, planned and accomplished burning, and smoke intrusions.

(6) Key to Smoke Drift Restrictions:

(a) Smoke drift away from designated area: No specific acreage limitation will be placed on prescribed burning when smoke drift is away from designated area. Burning should be done to best accomplish maximum vent height and to minimize nuisance effect on any segment of the public.

(b) Smoke drift toward designated area:

(A) Smoke plume height below designated area ceiling.

Includes smoke that for reasons for fire intensity, location, or weather, will remain below the designated area ceiling. Also included are fires that vent into layers of air, regardless of elevation, that provide a downslope trajectory into a designated area:

(i) Upwind distance less than 10 miles outside designated areas. No new prescribed fires will be ignited.

(ii) Upwind distance 10-30 miles outside designated area boundary. Burning limited to 1,500 tons per 150,000 acres on any one day.

(iii) Upwind distances 30-60 miles outside designated area boundary. Burning limited to 3,000 tons per 150,000 acres on any one day.

(iv) Upwind distances more than 60 miles beyond designated area boundary. No acreage restriction unless otherwise advised by the Forester.

(B) Smoke will be mixed through the deep layer at the designated area. This section includes smoke that will be dispersed from the surface through a deep mixed layer when it reaches the designated area boundary:

(i) Upwind distance less than 10 miles from designated area boundary. Burning limited to 3,000 tons per 150,000 acres on any one day.

(ii) Upwind distance 10-30 miles from designated area boundary. Burning limited to 4,500 tons per 150,000 acres on any one day.

(iii) Upwind distances 30-60 miles outside designated area boundary. Burning limited to 9,000 tons per 150,000 acres on any one day.

(iv) Upwind distances more than 60 miles beyond designated area boundary. No acreage restriction unless otherwise advised by the Forester.

(C) Smoke above a stable layer over the designated area. Smoke in this group will remain above the designated area, separated from it by a stable layer of air:

(i) Upwind distance less than 10 miles outside designated area. Burning limited to 6,000 tons per 150,000 acres on any one day.

(ii) Upwind distance 10-30 miles outside designated area. Burning limited to 9,000 tons per 150,000 acres on any one day.

(iii) Upwind distances 30-60 miles outside designated area. Burning limited to 18,000 tons per 150,000 acres on any one day.

(iv) Upwind distances more than 60 miles beyond designated area boundary. No acreage restriction unless otherwise advised by the Forester.

(D) Smoke vented into precipitation cloud system. When smoke can be vented to a height above the cloud base from which precipitation is falling, there will be no restrictions to burning[.], unless otherwise advised by the Forester.

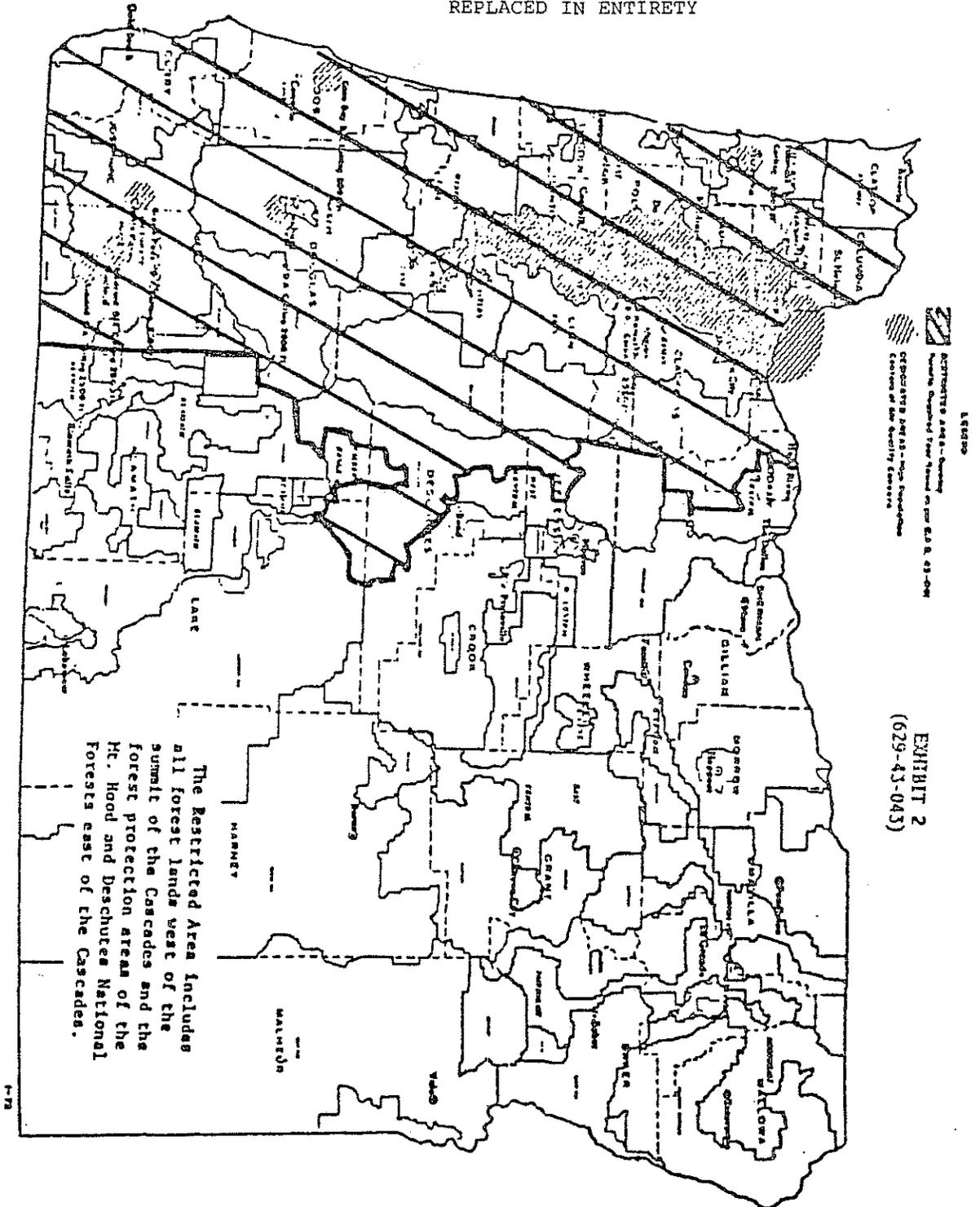
(c) Changing conditions: When changing weather conditions, adverse to the Smoke Management objective, occur during burning operations, aggressive mop-up [will] shall be initiated as soon as practical[.] and no additional burning shall be initiated.

(7) Analysis and Evaluation: The State Forester [will] shall be responsible for the annual analysis and evaluation of [state-wide] burning operations under this plan. Copies of the summaries will be provided to all interested parties.

(8) The Department of Environmental Quality, in cooperation with the State Forester, federal land management agencies, and private forest landowners shall develop maximum annual and daily emission limits in accordance with federal PSD (Prevention of Significant Deterioration) regulations.

OREGON ADMINISTRATIVE RULES  
CHAPTER 629, DIVISION 43 -- BOARD OF FORESTRY

NOTE THIS EXHIBIT PROPOSED TO BE  
REPLACED IN ENTIRETY





Protection  
9/29/86 - P.N.

FINAL DRAFT DIRECTIVE  
1-4-1-601 p. 1

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

PURPOSE. This directive sets forth the operational guidance for the Oregon Smoke Management Program. Contained herein are the objective, concept of operations, organizational guidance, and instructions for administration of the Oregon Smoke Management program.

SCOPE.

The Smoke Management Directive is:

1. Developed in cooperation with Federal and State agencies, landowners, and organizations which will be affected by the Smoke Management Program.
2. Jointly approved by the State Forester and (the Director of) DEQ.
3. Applicable to all prescribed burning on forests in western Oregon and selected portions of central Oregon as defined on Exhibit 2, OAR 629-43-043, Smoke Management Program.

SITUATION.

1. Authority:

ORS 477.515(3)(a) states:

"For the purpose of maintaining air quality, the State Forester and the Department of Environmental Quality shall approve a plan for the purpose of managing smoke in areas they shall designate."

ORS 477.515(3)(b) states:

"The State Forester shall promulgate rules to carry out provisions of the Smoke Management Plan..."

ORS 468.275 through 468.355 provides authority to DEQ to establish air quality standards including emissions standards for the entire state or an area of the state.

ORS 468.450 through 468.495 gives DEQ the authority to regulate field burning.

2. Under this authority:

a. The State Forester:

- (1) Coordinates the administration and operation of the plan.
- (2) Issues additional restrictions on prescribed burning in situations where the air quality of the entire state or any part thereof is, or would likely become, adversely affected by smoke.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

- (3) Issues daily burning instructions when needed.
  - (4) Annually, analyzes and evaluates state-wide burning operations under the plan and provides copies of the summary to interested parties.
- b. The Department of Environmental Quality:
- (1) Maintains a real-time air quality monitoring network that is used by OSDF.
  - (2) Provides information on field burning activity.
  - (3) Establishes criteria for air pollution emergencies and notifies OSDF of episode stages such as alerts, warnings, and emergencies.
  - (4) Regulates the emission of air pollutants to ensure compliance with adopted standards, limits, and control strategy plans.
  - (5) Notifies the Department of Forestry when the air in the entire State or portions thereof is or would likely become adversely affected by smoke.
3. Prescribed Burning in Oregon: An average of 104,000 acres is burned annually in western Oregon on 3,300 units. Tonnage burned has varied between a low of approximately 1.6 million in 1984 and a high of approximately 4.5 million in 1976. Burning activity varies according to seasonal, weather and fuel conditions, and reforestation and land management needs.
4. Cooperating Agencies: The policies and resources of many public and private agencies and organizations have substantial influence on the administration of the Smoke Management Program. The entities and their responsibilities are:
- a. State Agencies
    - (1) Department of Environmental Quality: policy, information and resources.
    - (2) Washington Department of Natural Resources: information.
  - b. Federal Agencies
    - (1) USDA, Forest Service: resources.
    - (2) Bureau of Land Management: resources.
    - (3) Bureau of Indian Affairs: information.
    - (4) U. S. National Park Service: information.
    - (5) U. S. Fish & Wildlife Service: information.
    - (6) National Weather Service: information and resources.
  - c. Other
    - (1) Regional air pollution authority: information.
    - (2) Oregon Forest Industries Council: information.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

5. Program Resources: The State Forester maintains a staff of four personnel in Salem and a field force of 65 foresters throughout western Oregon and central Oregon who participate in the Smoke Management Program to accomplish the inspection, enforcement, monitoring, and reporting tasks.

In addition, the USDA Forest Service and the BLM maintain field forces of approximately 80 supervisory personnel and professional foresters trained in the techniques of prescribed burning and the elements of the Smoke Management Program.

ASSUMPTIONS.

The Smoke Management Program is premised on the assumptions that:

1. Prescribed burning is a silvicultural technique of forest management that is beneficial to reforestation, forest stand improvement, wildlife habitat and the reduction of insect and disease problems.
2. Significant reductions in the cost and damages resulting from wildfire are achieved by burning slash residues following harvesting operations.
3. Smoke resulting from prescribed burning can be managed meteorologically to minimize the air quality impacts on populated areas and other areas sensitive to smoke.

DEFINITIONS. See OAR 629-43-043 (2a - p).

POLICY.

The policy of the State Forester is to:

1. Regulate prescribed burning operations on forest land recognizing the need to maintain forest productivity and the need to maintain air quality in populated areas and areas sensitive to smoke.
2. Achieve strict compliance with the Smoke Management Plan, Directive and instructions.
3. Encourage cost-effective utilization of forest residues as a means to reduce burning.

OBJECTIVE. To prevent smoke, resulting from burning on forest lands, from being carried to or accumulating in designated areas and other areas sensitive to smoke; to provide maximum opportunity for essential forest land burning while minimizing emissions; to coordinate with other state smoke management programs; and, to conform with state and federal air quality and visibility requirements.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

PROGRAM ELEMENTS.

1. The Smoke Management Plan: The Smoke Management Plan (OAR 629-43-043) provides a specific framework for the administration of the Smoke Management Program as administered by the State Forester.

The plan instructs the State Forester and each Field Administrator to maintain a satisfactory atmospheric environment in designated areas and other areas sensitive to smoke consistent with the plan objectives and smoke drift restrictions.

In administering the Smoke Management Program, the Forester and the Field Administrators are required to continually monitor weather factors and air quality conditions in designated areas and other areas sensitive to smoke.

The plan establishes a set of limitations applicable to specified burning and mixing conditions. These limitations relate to tonnage of fuel per 150,000 acres which, ideally, may be burned under various sets of mixing conditions. Experience has shown that these standards are adequate to protect designated areas only under ideal conditions. Frequently, in order to meet air quality objectives, more specific restrictions must be applied through issuance of Smoke Management instructions by the State Forester.

2. Operator's Written Plan: OAR 629-43-045 requires that prior to prescribed burning, a forest landowner or operator shall, in cooperation with the State Forester, develop a written plan which shall include consideration of "air quality".
3. Smoke Management Forecasts: The Salem and Medford Forestry Fire Weather offices provide smoke management forecasts daily. The forecast is for the following day (the forecast period) with an update as necessary on the morning of the forecast period (Salem only). An extended forecast may be provided depending on the weather influences involved at any given time.

The forecasts include reference to transport winds and mixing for the restricted area and other areas sensitive to smoke. Burning will be conducted in accordance with the current forecast information, including updated forecasts, when issued.

4. Smoke Management Instructions

Smoke Management Instructions will be issued only by the Salem Forestry Fire Weather Center and only during periods when weather is favorable for significant amounts of burning (usually late May through October). The instructions provide constraints on burning in areas where the restrictions, set forth in the Smoke Management Plan, may be inadequate to protect designated areas or other areas sensitive to smoke.

The instructions are based upon an analysis of the atmospheric conditions affecting smoke transport, dispersion, and air quality and visibility conditions in designated areas and other areas sensitive to smoke.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

5. Priority Burning System: The Forest Land Burning Priority Rating System was initiated to reduce the amount of forest land burning during the time when the maximum acreage of grass seed fields are being burned in the Willamette Valley. There are approximately 60 days during mid-summer when field burning has been given a high priority for use of the air shed in the valley for smoke dispersal. The Priority Burning System was developed by the Department of Forestry in coordination with the Department of Environmental Quality and with the cooperation of public and private forest land managers.

The priority burning period is established by the Department of Forestry upon the recommendation of the Department of Environmental Quality. The exact period varies from year to year and may extend for more or less than 60 days.

The Priority Burning System limits forest land burning during the 60-day period to units which must be burned during that time to meet the burning objectives. Only units with a high priority rating will be burned when the Priority Burning System is in effect. The Forester will provide notice to all Field Administrators when the Priority Burning System is initiated and rescinded.

The procedures for rating and prioritizing burn units are included in Appendix 3 of this directive. These procedures will apply to all units which may be burned when priority burning restrictions are in effect.

6. Enforcement: All forest land prescribed burning will be done in accordance with the daily Smoke Management Instructions and this directive:
- a. On private land: Violations of the Smoke Management Plan, Directive or the daily instructions issued by the State Forester are subject to enforcement action by the State Forester:
    - (1) Burning without a permit is a violation of ORS 447.515.
    - (2) Burning not in compliance with the Smoke Management Plan and Directive is a violation of OAR 629-24-301(7).
  - b. On Federal forest land:

Violations of the Smoke Management Plan Directive or the daily instructions issued by the State Forester are subject to federal enforcement action under Section 118 of the Clean Air Act, as amended in 1977.

Section 118 states that "Each...agency...of the Federal Government...engaged in any activity resulting...in the discharge of air pollutants...comply with all Federal, State, interstate, and local requirements,...respecting the control and abatement of air pollution in the same manner, and to the same extent as any nongovernmental entity."

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

7. Air Stagnation Advisories: Air stagnation advisories are issued by the National Weather Service Forecast Office in Portland when atmospheric conditions are such that the potential exists for air pollutants to accumulate for an extended period. During such times smoke and other pollutant sources within designated areas will create substantial air quality deterioration without the addition of smoke from outside sources. This condition is recognized in the administration of the Smoke Management Plan.

Smoke Management Instructions issued during an Air Stagnation Advisory will limit forest land burning to units which will not contribute smoke to a designated area covered by an Air Stagnation Advisory or an Air Pollution Alert issued by DEQ. Burning during such periods will be closely controlled.

8. Monitoring: The State Forester will monitor prescribed burning operations periodically by aircraft and other means:
1. to insure compliance with the Smoke Management Program; and,
  2. to determine the effectiveness of smoke management procedures.

Real-time air quality monitoring data is available to the State Forester through computer link with DEQ. This information will be used in the preparation and validation of daily Smoke Management Instructions as appropriate.

To evaluate compliance with the Smoke Management Program, the State Forester shall conduct a review of approximately 1% of the units burned each year. All units to be audited will be randomly selected. Each audit will include a site visit during burning, visual tracking and documentation of long range plume behavior and a determination of compliance with (a) the conditions of the burning permit; (b) the provisions of the Smoke Management Administrative Rules and Directives; and (c) compliance with the Smoke Management Program Instructions. The Department of Environmental Quality may jointly participate in some audits. Following completion of the audits, a written report of all findings shall be prepared. Significant findings shall be included in the Smoke Management Program Annual Report.

9. Reporting and Analysis:

Information is needed from the Field Administrators to provide for analysis of the program procedures. Reporting will be accomplished in accordance with Appendix 1, Detailed Instructions for the Oregon Smoke Management Reporting System.

10. Annual Report: The State Forester will prepare an annual report of statewide forest land prescribed burning, wildfire and smoke management activities. The report will summarize burning activities of the previous year and intrusion events and make pertinent observations toward improved operational efficiency in the program.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

STANDARDS.

1. Quantification of Forest Residues: The consistent estimation of the tons of fuel consumed in each prescribed burn is important to the development and equitable operation of the Smoke Management Program. To determine the fuel consumed by a prescribed burn:
  - a. Determine total pre-burn fuel tonnage load.
  - b. Calculate woody fuel consumption using 1000-hour timelag fuel moisture and algorithm developed to predict large fuel consumption.
  - c. Calculate and add duff consumption.

Estimation by Field Administrators of the total pre-burn fuel tonnage will be through the application of the "planer transect method" of inventorying forest residue. The planer transect method may be applied by the actual measurement of fuels, or by use of the publication "Photo Series for Quantifying Forest Residue", or through supplemental photographs developed by following appropriate procedures.

Instructions for the actual measurement of fuels are contained in the "Handbook for Inventorying Downed and Woody Material", U.S.D.A. Forest Service General Technical Report INT-16, 24p, Intermountain Forest and Range Experiment Station, Ogden, Utah.

Instructions for using the "Photo Series" are included in Appendix 4. A publication has been developed for western Oregon and eastern Oregon fuel types.

Instructions for fuels inventory and consumption procedures and utilization of 1000-hour fuels data are contained in Appendix 4.

2. Intrusions Defined: A smoke intrusion occurs when smoke from prescribed burning enters a Designated Area or other smoke sensitive area at ground level. When measurements or observations are available, intrusions are characterized as light, moderate, or heavy based on hourly nephelometer measurements of less than  $1.8 \times 10^{-4}$  B-scat, between  $1.8 \times 10^{-4}$  and  $4.9 \times 10^{-4}$  B-scat, and  $5.0 \times 10^{-4}$  B-scat and greater, respectively, above the clean air background. The clean air background is the average nephelometer reading for the 3 hours prior to the intrusion.

When no nephelometer data are available, the following visibility table will be used when visibility data are available. Standard National Weather Service visibility observation criteria will be used for reporting purposes. (See Appendix 2.)

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

INTRUSION CLASSIFICATION BASED ON VISIBILITY  
(For instructions on use see Appendix 2)

Background Visibility (Miles)*	INTRUSION INTENSITY**		
	LIGHT	MODERATE	HEAVY
	<u>REDUCED VISIBILITY - RV (MILES)</u>		
>50	RV $\geq$ 11.4	11.4 < RV $\geq$ 4.6	RV < 4.6
25-50	RV $\geq$ 10.5	10.5 < RV $\geq$ 4.4	RV < 4.4
20-24	RV $\geq$ 8.1	8.1 < RV $\geq$ 4.1	RV < 4.1
15-19	RV $\geq$ 7.5	7.5 < RV $\geq$ 3.8	RV < 3.8
10-14	RV $\geq$ 6.2	6.2 < RV $\geq$ 3.5	RV < 3.5
5-9	RV $\geq$ 3.7	3.7 < RV $\geq$ 2.5	RV < 2.5
3-4	RV $\geq$ 2.5	2.5 < RV $\geq$ 1.8	RV < 1.8
1-2	RV $\geq$ 1	1 < RV $\geq$ 0.5	RV < 0.5
0	RV $\geq$ -	-	0

\* Background based on 3-hour average visibility prior to reduction due to activity smoke. Visibility changes during naturally occurring periods of change, may have to be factored into the classification on a case-by-case basis (i.e., from daylight to dark, during a rain shower, etc.).

\*\* Reduced visibility must be determined to be predominantly from prescribed burning in order to determine intensity class.

Intrusions will be reported to the Smoke Management Program Administrator who will notify DEQ on a timely basis. See Appendix 2, Smoke Intrusion Report Form 1-4-1-301.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

3. Daily and Annual Maximum Tonnage: The Department of Environmental Quality, in cooperation with the State Forester, federal land management agencies, and private forest land owners shall develop maximum annual and daily emission limits in accordance with federal PSD (Prevention of Significant Deterioration) regulations.

SPECIAL GUIDANCE.

1. Instructions: Smoke Management Instructions will be issued from Salem at approximately 3:15 PM daily for the entire restricted area. By 7:00 AM each day a message will be placed on an automatic answering phone only if the previous 3:15 PM instructions will be updated. If the 3:15 PM instructions are still valid at 7:00 AM they will remain on the recording. If there is to be an update, burning shall not be initiated in the affected area until updated instructions are issued. Any amended instructions (either written or verbal) that are issued during the working day shall be strictly complied with.

The instructions shall be considered as directives from the State Forester. The authority for approving prescribed burning is delegated to the District Forester for burning regulated directly by the State Forester (private and BLM forest land), and to the Forest Supervisor for the U.S.D.A., Forest Service, and the Park Superintendent for the National Park Service for burning coordinated with the State Forester. These delegates and their designated field personnel are "Field Administrators". Any planned variances from the daily burning instructions will be discussed with the Smoke Management Duty Forecaster. If the Smoke Management Duty Forecaster and District Forester cannot agree on deviation from the instructions, the Deputy State Forester will discuss the situation and provide final resolution. If the Forest Supervisor or Park Superintendent and the Smoke Management Duty Forecaster cannot agree on deviation from the instructions, the Deputy State Forester will discuss the situation and make final resolution.

Variances or revisions to the instructions shall be recorded by the Protection Division.

2. Requests for Information: The State Forester's Office will provide more specific information to Field Administrators when requested by telephone. The following telephone numbers will be used in regards to the Smoke Management Instructions:

378-2800: "Automatic Answering Phone" recording with Smoke Management Instructions. Instructions will be recorded by approximately 7:00 AM (as needed) and 3:15 PM.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

- 378-2153: Smoke Management Duty Forecaster. Call this number for forecasts, instructions, and other daily operations. Do not call between 2:30 PM and 3:15 PM, or prior to 8:30 AM. These times are used to prepare instructions.
- 378-2509: Salem Fire Weather Forecast Service. Use this for fire weather needs; not smoke management.
- 378-2518: Salem Communications. For assistance in getting unit numbers, planning and resulting units or other daily data needs. Do not use for daily decision-making assistance.

3. Reduction of Emissions: The Department of Forestry will encourage private forest landowners to burn only those units that must be burned to achieve the landowners' objectives. Forest Practices Foresters, through the administration of the Forest Practices Act, will encourage utilization of residue, fuel reduction measures, and alternate treatment practices that are consistent with the purposes of the Forest Practices Act. The Department of Forestry supports efforts to reduce prescribed burning emissions and will strive to achieve emissions reduction goals established within the Oregon Visibility Protection Plan.

Burning during time periods when 1000-hours and larger fuels (3 inches in diameter or larger fuels) have relatively high fuel moistures, such as during spring, will be promoted where such burning is within the prescription necessary to achieve the objectives of the landowner.

Mass ignition methods will be encouraged to help reduce emissions where such techniques are economical and practical.

To minimize impacts from residual smoke, mop-up will be initiated on all units consistent with atmospheric and wind conditions. Within this context, during periods of observed or forecast low level transport toward the designated areas, mop-up shall begin immediately.

4. Monitoring of smoke behavior will be intensified on marginal days. This will be done by use of lookouts, aerial observation, and on-site observation of smoke behavior.
5. Any wildfire that has the potential for smoke input into a designated area or other area sensitive to smoke will be reported immediately to the State Forester's Fire Operations Section who will advise DEQ on a timely basis.
6. Test Burn Project: In order to determine the feasibility of alternative schedules in burning to minimize smoke impacts while maintaining burning accomplishments, a test project will be established during 1986-88. Special strategies will be employed in burning, and assessment will be made for impacts on air quality and burning accomplishment.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

7. Tonnage limits will be reviewed by the DEQ and the Department of Forestry for possible update and revision, as necessary, as uniform fuel loading estimation and consumption procedures are developed and tested.
8. A statewide forest fuels inventory procedure will be developed by the Department of Forestry in cooperation with the Department of Environmental Quality. The new procedure will be implemented in 1987.

RESPONSIBILITIES.

1. State Forester: The State Forester is responsible for the coordination of the Smoke Management Plan and the Operating Details between the National Weather Service, U.S.D.A. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, forest landowners, Department of Environmental Quality, National Park Service, Bureau of Indian Affairs, Washington State Department of Natural Resources, and regional air quality authorities. In addition, the State Forester, through the Forest Protection Division, has the responsibility to issue additional restrictions on prescribed burning in situations where the air quality of the entire state or any part thereof is, or would likely become, adversely affected by smoke.
2. Forest Protection Division: The Forest Protection Division is directly responsible for:
  - a. Providing weather forecasting services for Smoke Management purposes.
  - b. Issuing Smoke Management Instructions to Field Administrators.
  - c. Coordinating with Department of Forestry's Area and District offices, cooperating agencies, and forest land owners in identifying training needs and in developing training programs.
  - d. Monitoring the Smoke Management Program.
  - e. Providing on-the-ground assistance to Field Administrators as requested.
  - f. Maintaining liaison with Field Administrators through the Smoke Management Meteorologist and normal staff/line relationships.
  - g. Maintaining the Smoke Management Record System.
3. Field Administrators: Oregon Department of Forestry field administrators will administer prescribed burning according to the Smoke Management Plan, Operational Guidance for the Oregon Smoke Management Program (Directive 1-4-1-601), and the daily Smoke Management Instructions.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

U.S.D.A., Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS), U. S. Fish and Wildlife Service (USFWS), and the Bureau of Indian Affairs (BIA). Federal land management agencies are required by law to follow the directions of the Forester for the protection of air quality in conducting prescribed burning operations in the restricted area. They will follow the smoke management weather forecasts, smoke management instructions, and priority burning restrictions as provided by the Oregon Smoke Management Plan and the Operational Guidance for the Oregon Smoke Management Program (Directive 1-4-1-601).

- o Make daily reports relating to burning operations.
- 4. Department of Environmental Quality (DEQ): The State Forester and the DEQ are required by ORS 477.515 to approve a plan for the purpose of managing smoke in areas they shall designate. The Oregon Smoke Management Plan is the product of this statutory requirement.
- 5. Private Forest Landowners: It is the responsibility of private forest landowners under Oregon Forest Laws to do forest land prescribed burning according to the Oregon Smoke Management Plan. They are responsible to burn according to directions from State Forestry Field Administrators and to do mop-up of prescribed burns necessary to maintain air quality and visibility in designated areas and areas sensitive to smoke.

CONTROL.

Review: The Smoke Management Plan and Directive shall be reviewed at least every three years. The review will be conducted jointly by the State Forester and the Director of Environmental Quality and will include representatives of affected agencies and parties.

AGREEMENT:

In witness whereof, the parties have agreed to the guidelines set forth in this Directive.

State of Oregon  
Department of Forestry

State of Oregon  
Department of Environmental Quality

by: \_\_\_\_\_

by: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Objective: The Department of Forestry's Fire Operations center operates a computer program to record and process smoke management data. Data is received and transmitted through the State Forestry and U.S. Forest Service communications systems.

The objectives of the reporting system are to provide a current record of:

1. Locations and amounts of planned burning for the current day.
2. Locations and amounts of burning accomplished the previous day.
3. Annual summaries of data for air quality purposes.

Area Included:

Reporting is required throughout the state. The procedure and frequency of reporting needs for different areas of the state are identified below. Data are grouped by Administrative Units, i.e., National Forest, Crater Lake National Park and each State Forest Protection District.

Types of Burning to be Included:

All burning related to forest management activities should be included in the reporting system. Some examples are slash and brush disposal after logging, road building, scarification, or burning of brush fields for reforestation. Other examples which should be included are underburning, or brush field burning for stand improvement or wildlife habitat.

Types of Burning That Should Not be Included:

Burning for debris disposal or burning related to agricultural activities should not be included in the reporting system. Some examples are household or yard maintenance debris such as paper, leaves, lumber, etc., and grass or grain stubble. Small piled slash areas such as for a homesite should not be included if the amount to be burned is less than 5 tons.

While these examples would not be reported in the Smoke Management Plan Data System, any burning subject to permit under ORS 477.515 must conform to the Smoke Management Plan. Also, in some areas "backyard" and stubble burning must be done in compliance with the Department of Environmental Quality (DEQ) rules, rather than the Oregon Smoke Management Plan.

Range improvement burning data in central and eastern Oregon should not be included in the reporting system.

Procedure:

For units outside of the restricted area and right-of-way units, see the "Frequency of Reporting" paragraphs. In the restricted area, three basic steps are involved in the reporting system:

1. A "Unit Description" is submitted to Salem for each "burn unit" as provided on Reporting System Coding Sheet (Part I, Form 1-4-1-501).

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

This results in a "Unit Number" assigned to the specific burn unit, anywhere from several months or weeks to a day before the burning is to be done. Field offices with access to the OSDF computer network should enter the data directly into the computer.

2. "Unit Numbers" of planned burns in the restricted area are submitted by field offices on the day burning is to be done. This results in "Planned Burns" (Part II of Form 1-4-1-501). Planned burns are posted daily on the communications network for all users and the list is sent to DEQ.
3. An "Accomplishment Report" is submitted by field offices in the restricted area the day after burning, again using "Unit Number" as a reference (See Part III of Form 1-4-1-501). The accomplishment report is posted daily along with planned burns.

Frequency of Reporting:

In the restricted area (see OAR 629-43-043), all planned and accomplished burning should be entered into the computer on a daily basis. The planned burns are entered by 10:15 AM on the morning of the burn; accomplishments are reported by 10:15 AM on the next working day after the unit is burned. Special circumstances due to an office closure or a late planned or accomplished burn should be handled through the Fire Operations Center in Salem. This is not expected to be a routine practice.

Right-of-way burning should be accomplished in accordance with the instructions on Form 1-4-1-502. Basically, right-of-way units should get a unit number as per step 1 in the procedure listed above. Right-of-way units do not have to be planned or accomplished on a daily basis. Accomplishments should be submitted promptly to Salem Fire Operations by the 5th of each month for the prior month's activity.

Outside of the restricted area, unit numbers should be obtained as per step one in the procedure listed above. Otherwise, units do not have to be planned on a daily basis nor does an accomplishment report have to be submitted to Salem on a daily basis. However, Part III (Accomplishment Report) of Form 1-4-1-501 must be completed for every burn with the date of the burn identified for each unit. If a unit is burned on several different dates, there should be a complete entry for each date on which the unit was burned.

The accomplishments should be submitted promptly to Salem Fire Operations by the 5th of each month for the prior month's activity. Right-of-way burning should be submitted as per the procedure identified above for units within the restricted area.

DETAILED INSTRUCTIONS FOR REPORTING SYSTEM CODING SHEET (FORM 1-4-1-501):

Instructions are included as pages 7-11 of Appendix 1.

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Part I - Unit Description and Number Assignment (Page 1 of Form 1-4-1-501):

A number needs to be obtained prior to burning a unit. The number will be assigned by the computer after the data is entered into the computer. The raw data is the information needed from a field office to begin a record for a specific area to be burned. The data may be entered on the form and mailed to Salem or entered directly on a CRT that has access to the computer program. Where teletype variety communications exist, data may be transmitted via those devices, separating each field by a comma per the instructions on the coding sheet. Teletype transmitted data will then be entered into the computer by Salem Fire Operations personnel. Forms that are mailed should be addressed to:

Department of Forestry  
Attn: Fire Operations Center  
2600 State Street  
Salem, OR 97310

Number Assignment:

Field offices that enter data directly into the computer via CRT will have the unit number displayed on the CRT after the data has been entered.

Field offices that submit data to Salem for entry into the computer will receive a printout of the data with the assigned unit number.

All offices should review the data as soon as possible. If any errors are found, correct Salem Fire Operations and provide the correct data. Salem personnel will then correct the data.

Part II - Planned Burns (Page 2 of Form 1-4-1-501)

On the day a unit is planned for burning, the information that needs to be reported is the unit number, planned ignition time, acres planned for burning and the tons planned for burning. The acres and tons can be more or less than those numbers entered in Part I; they are to be your best estimate of activity on the unit for the day.

When reporting by teletype, be sure to separate the data fields by a comma. When reporting by CRT, fill in the blanks on the screen. All data should be reported by 10:15 AM.

Do not plan right-of-way burns on a daily basis (See Form 1-4-1-502).

Field offices outside of the restricted area should not plan units on a daily basis. See "Frequency of Reporting" section, above.

When all planned burns have been received, a daily planned summary listing will be generated for distribution to field offices and DEQ.

Protection  
6/86 - P.N. No.

DRAFT DIRECTIVE  
1-4-1-501 p. 16  
Appendix 1 p. 4

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Part III - Accomplished Burns (Page 2 of Form 1-4-1-501)

On the day after a unit is burned, enter the data shown in Part III of Form 1-4-1-501.

When reporting by teletype, be sure to separate the data fields by a comma. Also, when no burning occurred on a planned unit, only the unit number and two zeroes are required (all separated by commas).

When reporting by CRT, fill in the blanks on the screen. Enter only the unit number and a zero in the tons entry field and a zero in the acres data field.

The accomplished acres and tons may be more or less than the number entered in either Part I or Part II depending upon the fuel and weather conditions on the site. Report the actual tonnage that was estimated to be consumed as well as the actual acreage that was burned. Include data from any slopover when the fire gets out of the unit.

All data should be reported by 10:15 AM.

Do not accomplish right-of-way burns on a daily basis using the above procedure (See and use Form 1-4-1-502).

Field offices outside of the restricted area should not report units on a daily basis via teletype or CRT. See "Frequency of Reporting" section, above.

All planned burns must be accomplished the following day or on the next business day if the Fire Operations Center is not operational on a weekend or holiday. The data fields must be completed if there was burning or "zeroed" if there was no burning.

When reporting by teletype, units burned during weekends or holidays when the Fire Operations Center is closed should be reported in groups by the date burning was done on the next workday when the Center is open.





INSTRUCTIONS FOR  
DATA FORM 1-4-1-501 FOR SMOKE MANAGEMENT  
GENERAL REQUIREMENTS

PART I: INITIAL ENTRY FOR UNIT VERIFICATION AND NUMBER ASSIGNMENT.

The following information shall be entered into the computer prior to burning to get the necessary unit number for planning and resulting burns.

1. District or Forest Identifier: A three-digit code as shown in the table on page 9.

2. County Number

01 Baker	10 Douglas	19 Lake	28 Sherman
02 Benton	11 Gilliam	20 Lane	29 Tillamook
03 Clackamas	12 Grant	21 Lincoln	30 Umatilla
04 Clatsop	13 Harney	22 Linn	31 Union
05 Columbia	14 Hood River	23 Malheur	32 Wallowa
06 Coos	15 Jackson	24 Marion	33 Wasco
07 Crook	16 Jefferson	25 Morrow	34 Washington
08 Curry	17 Josephine	26 Multnomah	35 Wheeler
09 Deschutes	18 Klamath	27 Polk	36 Yamhill

3. Legal location by township, range and section. Separate each element by a dash. Do not include the letters "T", "R", "S".

Example: 10S-10W-33 Not T10S-R10W-S33

4. Elevation of Burn: Height of burn above sea level in feet, using average elevation to the nearest 100 feet.
5. Distance from nearest designated area boundary: Rounded to nearest mile. If within DA, use 0. If more then 60 miles, enter "60".
6. Type of Burn: Broadcast - B Piles - P
7. Priority of burn based on rating form:

High Priority - H Low Priority - L  
Right-of-way - R

NOTE: High classes are not used on units south of the main stem and North Fork of the Umpqua River. High classes are not used on units on the Diamond Lake and North Umpqua Ranger Districts.

8. Ownership Type:

USFS - blank Private - P Federal (except USFS) - F  
State, County, Municipal - S

9. Acres in unit: If less than 1, report 1.

DATA FORM FOR SMOKE MANAGEMENT  
GENERAL REQUIREMENTS

10. TOTAL fuel loading (tons):

The total fuel loading on the unit should be reported in this entry, not just consumable tons. Units with less than 5 tons should not be entered.

11. Total Loading of 3"+ fuels (Tons/acre)

12. Method for determining fuel loading:

Transect - T    PNW Photo Series - S    Local Photo Series - L  
Other Methods - M

NOTE: Use of "M" requires local documentation and record-keeping of the method used.

13. Average duff depth to the nearest inch.

14. Predominant Species of fuel:

Softwood - S            Hardwood - H            Brush - B

15. Minimum harvest log diameter:

<u>Harvest Spec.</u>	<u>Entry Code</u>
4 inches by 4 feet	"4"
6 inches by 6 feet	"6"
8 inches by 10 feet	"8"
Other	"9"
Not Applicable	"1"

PART II: PLANNED BURN

The following information shall be entered into the computer on the day that the unit is planned for burning for all districts and forests in the restricted area. Outside of the restricted area, see Part III for reporting requirements.

1. Unit Number: As previously assigned by the computer. Do not plan right-of-way units on a daily basis; see Form 1-4-1-502 for right-of-way procedures.
2. District or forest identifier (as used in Part I).
3. Estimated ignition time: use 24-hour clock and local time.
4. Number of acres that are planned to be burned.
5. Tons that are planned to be burned.

DATA FORM FOR SMOKE MANAGEMENT  
GENERAL REQUIREMENTS

PART III: ACCOMPLISHED BURN

The following information shall be entered into the computer on the day after the burning occurred for all districts and forests in the restricted area. Outside of the restricted area, districts and forests should keep daily records of the following information and submit the information to Salem Communications by the fifth of each month for the prior month's activity.

1. Unit number as previously assigned by the computer. Do not result right-of-way units into the computer on a daily basis; see Form 1-4-1-502 for right-of-way procedures.
2. District or Forest identifier (as used in Part I and II).
3. Actual ignition time: use 24-hour clock and local time.
4. Ignition Duration: The total minutes from time ignition first started to the time ignition stopped, including any breaks in firing.  
Example: if ignition started at 0800; then stopped at 0830; then resumed at 0930 and was completed at 1100, the duration would be 180 minutes.

5. Ignition Method:

Aerial - A      Hand - H      Combination of Aerial and Hand - C  
Other Method - M

NOTE: If one method accounts for 75% or more of the acres ignited, enter that method, not "C".

6. Number of acres actually burned.

NOTE: This can be more or less than the number planned. Include slop-over acres in the total.

7. Live fuel present (Tons/acre):

<u>Tons/Acre</u>	<u>Entry Code</u>
0 to 1/3	"1"
1/3 to 2	"2"
>2	"3"

8. For piles burned simultaneously on broadcast units enter the volume, in cubic yards, of material burned. Enter "0" if there are none.
9. The number of tons actually burned. This can be more or less than the entries made in Part I and II. On broadcast burns, include the piled tonnage if the piles are burned.

DATA FORM FOR SMOKE MANAGEMENT  
GENERAL REQUIREMENTS

10. Weather station used for consumption estimates:

RAWS - enter the station name.  
Fire Weather Station - enter the station name.  
National Weather Service Office - enter NWS office name.  
On site - enter the word "unit".

NOTE: If a station name exceeds ten characters, enter only the first ten characters. Delete spaces when entering the name.

11. 1000-hr fuel moisture: Example 32%, enter 32.

12. How was 1000-hr fuel moisture determined:

<u>Method</u>	<u>Entry Code</u>
NFDR-th	"N"
ADJ-th	"A"
Measured:	
Weighed	"W"
Moisture Meter	"M"

13. Unit weather at the time of ignition. Enter temperature (°F), humidity (%), surface wind direction and wind speed (mph). For wind direction, use 8 points of the compass as shown in the table. Separate all entries by a dash.

Wind Direction Table

<u>Code</u>	<u>Direction</u>	<u>Code</u>	<u>Direction</u>
1	NE	5	SW
2	E	6	W
3	SE	7	NW
4	S	8	N

NOTE: "Direction" is the direction from which the wind is coming.

Example entry: Temp - 72, Humidity - 50%, NW wind at 5 mph should be entered as 72-50-7-5.

14. Months of summer drying since harvest:

<u>Months</u>	<u>Entry Code</u>
< = 3 months	"3"
>3 months	"4"

SMOKE MANAGEMENT DISTRICT ID NUMBERS

521	Astoria	97	Northeast	16	Wallowa-Whitman NF
69	Clackamas-Marion		971 La Grande		161 Baker
	691 Molalla		972 Pendleton		162 Wallowa Valley
	692 Santiam		973 Wallowa		165 Eagle Cap
72	Coos	07	Ochoco NF		166 La Grande
	721 Bridge		071 Big Summit		167 Pine
	722 Coos Bay		072 Paulina		169 Unity
	723 Gold Beach		073 Prineville	95	West Central
090	Crater Lake N.P.		074 Snow Mountain		951 Fossil
01	Deschutes NF	10	Rogue River NF		952 John Day
	011 Bend		101 Applegate		953 Monument
	012 Crescent		102 Ashland		954 Prineville
	013 Fort Rock		103 Butte Falls		955 Sisters
	015 Sisters		106 Prospect		956 The Dalles
73	Douglas	11	Siskiyou NF	68	Western Lane
	731 North Douglas		111 Chetco		681 Florence
	732 South Douglas		112 Galice		682 Reedsport
671	Eastern Lane		113 Gold Beach	65	West Oregon
53	Forest Grove		114 Illinois Valley		651 Philomath
	531 Columbia City		115 Powers		652 Dallas
	532 Forest Grove	12	Siuslaw NF		653 Toledo
02	Fremont NF		121 Alesia	18	Willamette NF
	021 Bly		122 Hebo		181 Blue River
	022 Lakeview		123 Mapleton		183 Sweet Home
	023 Paisley		124 Waldport		184 Detroit
	024 Silver Lake	71	Southwest		185 Rigdon
98	Klamath-Lake		711 Central Point		186 Lowell
	981 Klamath Falls		712 Grants Pass		187 McKenzie
	982 Lakeview	511	Tillamook		188 Oakridge
66	Linn	14	Umatilla NF	20	Winema NF
	661 Sweet Home		141 Dale		201 Chemult
	622 Santiam		142 Heppner		202 Chiloquin
04	Malheur NF		144 Ukiah		203 Klamath
	041 Bear Valley		146 Walla Walla		
	042 Burns	15	Umpqua NF		
	043 Long Creek		151 Cottage Grove		
	044 Prairie City		152 Tiller		
06	Mt. Hood NF		153 Diamond Lake		
	061 Barlow		156 North Umpqua		
	062 Bear Springs	991	Walker Range		
	063 Clackamas				
	064 Columbia Gorge				
	065 Estacada				
	066 Hood River				
	069 Zig Zag				



### GENERAL INSTRUCTIONS

1. This form is to be used for the reporting of right-of-way burn accomplishments only. All other accomplishments should be reported using the format procedures outlined on form 1-4-1-501.
2. Right-of-way units will not be planned on a daily basis. They will not be reported to Salem on a daily basis.
3. On the 1st day of each month all field units should submit completed forms for the previous month to their appropriate state district headquarters or USFS forest supervisor's offices. Field units should not send completed forms directly to Salem.
4. By the 5th of the month the respective headquarters offices should:  
(1) ensure that all field units have reported, and (2) mail the completed forms to Salem Communications. It is the responsibility of the respective headquarters to promptly submit all completed forms each month.
5. If no right-of-way burning was accomplished during the month for the entire national forest or state district this fact can be sent via teletype or telephone to Salem Communications by the respective headquarters.
6. After all information is received by Salem Communications each month, Salem will enter the data onto the computer file.
7. This reporting for right-of-way units in no way affects when burning may or may not occur. Weather forecasts and advisories should be reviewed daily to determine if any restrictions to burning are in effect.
8. Each day a unit is burned the appropriate data should be entered on form 1-1-3-420 as detailed below. If, for example, a unit was partially burned on 5 different days, there should be 5 entries on the form.

COLUMN

1

DATA

UNIT NUMBER: The number as assigned by the computer should be entered each day burning is accomplished.

2

DATE BURNED: Enter the date burned as the month, day and year, i.e. a unit burned on April 19, 1983 should be entered as "4-19-83".

3

ACTUAL IGNITION TIME: Enter the time when ignition was started. DO NOT enter the time that ignition was completed. Use a 24 hour clock, i.e. a 6 A.M. ignition would be 0600; a 6 P.M. ignition would be 1800.

4

ACTUAL TONS BURNED: Enter the estimate of the tonnage that was actually consumed for the date in the unit.

SMOKE INTRUSION REPORT  
Form 1-4-1-301

Definition

A smoke intrusion occurs when any visible or monitored smoke from prescribed forest burning enters a Designated Area or other area sensitive to smoke at ground level.

Background

An assessment of burning's impact on air quality is aided by a knowledge of when smoke entered a Designated Area. Smoke intrusions vary greatly in duration, concentration and effect on a Designated Area. Smoke accumulating at the surface and remaining overnight adversely affects air quality more than if smoke drifts through and clears in an hour or two. The State Forester is required by statute and agreement with DEQ to "analyze and evaluate state-wide burning operations under the plan." Such analysis includes intrusion analyses.

Purpose

This intrusion report provides a descriptive record of smoke intrusions as required by administrative rule. Reports are annually summarized in the Smoke Management Annual Report compiled by the Smoke Management Section.

Responsibilities

Field units, i.e., State Districts or National Forests, are responsible for monitoring smoke from burning activity and reporting intrusions to the Smoke Management Coordinator through the use of Form 1-4-1-301.

The Salem Smoke Management Coordinator is responsible for:

1. Combining field reports into one intrusion summary when more than one field unit is involved.
2. Liaison with Department of Environmental Quality to develop descriptive reports of smoke intrusions.
3. Preparing an annual summary of intrusions.

When to report by telephone:

Any intrusion is to be reported by telephone as soon as possible but not later than noon of the next workday after the intrusion. If 7-day operations are not in progress at Salem, then telephone by noon on the first workday after the incident. If the Smoke Management Coordinator is not available, then the duty forecaster for smoke management should be notified.

Protection  
6/86 - P.N. No.

DRAFT DIRECTIVE  
1-4-1-601 p. 27  
Appendix 2 p. 2

SMOKE INTRUSION REPORT  
Form 1-4-1-301

When to report by mail:

A completed Smoke Intrusion Report Form 1-4-1-301 shall be submitted by the appropriate field office to the Smoke Management Coordinator within two working days of the intrusion. Sections H through L of the form will be completed by the duty forecaster and returned to the field office in two working days.

Field offices observing smoke entering a Designated Area from burn units outside of their administrative area should also submit telephone and written reports as outlined above. In addition, they should notify the field office that has administrative responsibility for the problem unit(s) of the fact that smoke is entering or about to enter a Designated Area.

It is helpful and desirable that field offices report potential intrusions as soon it appears that smoke may enter a Designated Area. This allows the Smoke Management Coordinator or duty forecaster to obtain monitoring data prior to and during the incident. It also facilitates public relations work resulting from an incident.

SMOKE INTRUSION REPORT

Sections A and B must be telephoned to Salem, 378-2153, no later than noon the next workday after the intrusion. Every attempt should be made to notify Salem as soon as it is evident that smoke will impact a designated area. A completed form should be submitted to Salem within two working days of the intrusion.

A. SMOKE ORIGIN:

Unit Number(s)	District/Forest	Legal Descr.	Owner Class	Elev.	Acres	Tons	Ign Time	Date Burned
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

B. INTRUSION DESCRIPTION:

1. Designated Area Affected \_\_\_\_\_
2. Date \_\_\_\_\_ Time \_\_\_\_\_ Smoke entered area. Duration \_\_\_\_\_ hours.
3. Type: Main Plume \_\_\_\_\_ Residual Smoke \_\_\_\_\_ Drift Smoke \_\_\_\_\_
4. Describe Smoke Behavior (including distances and elevations of base of plumes) \_\_\_\_\_  
\_\_\_\_\_

C. FORECAST AND INSTRUCTIONS:

1. Forecast transport wind direction and speed at ignition time and for next 12 hours \_\_\_\_\_  
\_\_\_\_\_
2. Observed transport wind direction and speed at ignition time and for next 12 hours \_\_\_\_\_  
\_\_\_\_\_
3. Forecast surface wind direction and speed at ignition time and for next 12 hours (24 hours if residual smoke was a factor) \_\_\_\_\_  
\_\_\_\_\_
4. Observed surface wind direction and speed at ignition time and for next 12 (24) hours \_\_\_\_\_  
\_\_\_\_\_
5. Were significant changes in transport or surface wind conditions forecast \_\_\_\_\_ observed \_\_\_\_\_  
Describe any changes that occurred \_\_\_\_\_
6. What were general weather conditions during the burn period (include conditions at least 6 hours after ignition stopped). Give sky conditions, type and height of clouds, precipitation etc., be specific.  
\_\_\_\_\_
7. Was Salem consulted about observed weather that was different than forecast? \_\_\_\_\_  
\_\_\_\_\_
8. What were Smoke Management Instructions? Written and/or verbal \_\_\_\_\_  
\_\_\_\_\_

D. WHAT WERE THE FUEL MOISTURES AT IGNITION TIME:

1 hour \_\_\_\_\_ 10 hour \_\_\_\_\_ 100 hour \_\_\_\_\_ 1000 hour \_\_\_\_\_

E. OTHER VISIBILITY RESTRICTING SOURCES PRESENT:

Field Smoke \_\_\_\_\_ Resident Emissions \_\_\_\_\_ Ag Smoke \_\_\_\_\_ Wildfire Smoke (Fire's Name) \_\_\_\_\_  
Dust \_\_\_\_\_ Other Prescribed Fire Smoke \_\_\_\_\_ Other (Specify) \_\_\_\_\_ Unable to identify \_\_\_\_\_

SMOKE INTRUSION REPORT

F. EXPLAIN SPECIFICALLY THE CAUSE OF THE INTRUSION. Has the cause been the result of previous intrusions?

\_\_\_\_\_

G. COMMENTS: \_\_\_\_\_

\_\_\_\_\_

SECTION H THROUGH L TO BE COMPLETED BY SALEM FORECASTER:

H. INTRUSION INTENSITY (see directive tables):

1. Average DA prevailing visibility for 3 hours prior to start of intrusion \_\_\_\_\_ miles.

2. Lowest prevailing visibility during duration of intrusion \_\_\_\_\_ miles.

3. Average DA nephelometer for 3 hours prior to start of intrusion \_\_\_\_\_.

4. Highest nephelometer during duration of intrusion \_\_\_\_\_.

5. Classification based on visibility or nephelometer:

Light \_\_\_\_\_ Moderate \_\_\_\_\_ Heavy \_\_\_\_\_ Unknown or can't determine \_\_\_\_\_ No classification (due to other sources) \_\_\_\_\_

If moderate or heavy, the number of hours in those categories: Moderate \_\_\_\_\_ Heavy \_\_\_\_\_

I. OBSERVED MIXING DEPTH FROM NEAREST RAOB OR UPPER AIR SITE. (Identify any shear layers.) \_\_\_\_\_

\_\_\_\_\_

J. GENERAL SYNOPTIC CONDITIONS, BOTH LARGE AND SMALL SCALE. Be as specific as possible with feature locations.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

K. WERE FORECASTS AND INSTRUCTION ADEQUATE (Y/N) \_\_\_\_\_. Why \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

L. COMMENTS. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## INTRUSION DETERMINATION FROM VISIBILITY OBSERVATIONS

### Introduction

When no nephelometer data is available to determine the intensity of an intrusion, visibility data may be used as a substitute when such data is available from a reliable source. The standard observation procedure used by the National Weather Service as outlined in the Federal Meteorological Handbook No. 1 should be the minimum standard accepted as a reliable indicator of visibility. The observation procedure is outlined below and should especially be utilized by field units that have the potential of impacting Designated Areas where no airport data is available. Prevailing visibility is the observation that will be used as a surrogate for nephelometer data. Using the procedure outlined below to determine prevailing visibility and the visibility table in the Smoke Management Directive 1-4-1-601, a determination of intrusion intensities will be made.

### Observation Procedure

**Determination of Visibility:** Using all available visibility markers, determine the greatest distances that can be seen in all directions around the horizon circle. When the visibility is greater than the distance of the farthest markers, estimate the greatest distance you can see in each direction. Base this estimate on the appearance of the visibility markers. If the markers are visible with sharp outlines and little blurring of color, the visibility is much greater than the distance to the markers. If a marker can barely be seen and identified, the visibility is about the same as the distance to that marker.

**Determination of Prevailing Visibility:** After visibilities have been determined around the entire horizon circle, resolve them into a single value for reporting purposes. To do this, use either the greatest distance that can be seen throughout at least half the horizon circle, or if the visibility is varying rapidly during the time of the observation, use the average of all observed values. Prevailing visibility should be reported in miles.

**Determination of Sector Visibility:** When the visibility is not uniform in all directions, divide the horizon circle into sectors which have approximately the same visibility. Report the prevailing visibility which can be seen throughout at least half of the horizon circle.

See the next page for examples of the prevailing visibility that should be reported in different scenarios.

DRAFT DIRECTIVE  
1-4-1-601 p. 31  
Appendix 2 p. 6

EXAMPLES - Determining Prevailing Visibility (Prevailing Visibility indicated by asterisks and shading)																	
<p><u>Four Sectors</u></p> <table border="1"> <thead> <tr> <th>Visibility (miles)</th> <th>Approximate Degrees</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>90</td> </tr> <tr> <td>2½*</td> <td>90</td> </tr> <tr> <td colspan="2"><hr style="border-top: 1px dashed black;"/></td> </tr> <tr> <td>2</td> <td>90</td> </tr> <tr> <td>1½</td> <td>90</td> </tr> </tbody> </table>	Visibility (miles)	Approximate Degrees	5	90	2½*	90	<hr style="border-top: 1px dashed black;"/>		2	90	1½	90					
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### FOREST LAND BURNING PRIORITY RATING SYSTEM

The Forest Land Burning Priority Rating System (Priority Burning System) identifies units\* which require burning during the summer months to meet silvicultural and reforestation objectives. It provides a means for prioritizing units selected for summer burning into "high" or "low" categories.

The objective of the Priority Burning System is to more closely regulate forest land burning during the approximately 60 mid-summer days when field burning is being accomplished in the Willamette Valley. The system insures that only forest units which must be burned during the hotter, drier mid-summer period will be burned while field burning is taking place.

The area covered by the system is that part of western Oregon north of the North Fork and main stem of the Umpqua River, excluding the Diamond Lake and North Umpqua Ranger Districts of the Umpqua National Forest.

Rating forms for the Cascade and Coast Ranges were developed and field tested by two interagency-industry task force groups. The system is designed to identify those units which, because of the nature of the site, fuel and silvicultural requirements, must be burning during the hotter, drier mid-summer period.

The Priority Burning System is closely coordinated with the Department of Environmental Quality. The start and ending of the priority period\*\* will be determined by the Forester with the advice of the DEQ on field burning levels. The priority burning systems will not be in effect when field burning is stopped, or is at very low activity levels. Also, non-priority burning may be allowed in specified areas when the Forester determines that such burning will not impact the Willamette Valley.

Notification of the beginning, ending, and any areas exempt from the Priority Burning System will be included with daily smoke management instructions issued from Salem.

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\* Unit: A term used to describe a contiguous area of forest land with specific boundaries upon which some activity or activities will be conducted.

\*\* Priority Burning Period: It is a period of time when only "high priority" forest land units will be burned. The 60 days is an approximate span of time; the period will generally begin in mid-July when heavy field burning has begun and will end when conditions no longer permit this level of burning in September.

### FOREST LAND BURNING PRIORITY RATING SYSTEM

Certain special areas will be classed as high priority without use of the priority rating procedure. Such areas are characterized by special or unique management objectives which make use of a rating system impractical. Such units include:

- Vegetation management areas, such as huckleberry fields.
- Visual management areas which must be burned under very restrictive prescriptions.
- Special watershed areas requiring burning.
- Game habitat improvement burning.
- Campground development.
- Special research projects.
- Right-of-way burning which must be done during the summer.
- Prescribed under-burning.
- \*High elevation units.

---

\* High elevation units in the Cascades which may be burned with no risk of impact on designated areas will be considered high priority under the following circumstances.

- a. High elevation units must be at least 1000 feet in elevation above the designated area ceiling (designated area ceiling is 2500 feet). Thus, any unit must be at or near 3500 feet elevation to fall into this category.
- b. In no event will any unit burned in this category be less than 1000 feet above a stable layer above the designated area.
- c. There must be a sustained westerly air flow in the vicinity of the unit with no probability of a wind shift toward the designated area within 12 hours of ignition time.
- d. All units must be at least 40 miles from the designated area.
- e. All units must be cleared through the Smoke Management Coordinator prior to ignition.

## FOREST LAND BURNING PRIORITY RATING SYSTEM

### Instructions For Using Priority Rating Forms for Evaluating Forest Land Burning Units

The Preliminary Priority Burning Chart will be used for all units which are desirable to burn during the summer months. This chart is used to indicate the treatment objective for the site and whether burning is needed. If burning is needed, the season when burning objectives can best be met are identified. If summer burning is required or desirable, the appropriate Coast Range or Cascade Range Prioritizing Rating Form is used.

#### Using the Preliminary Priority Chart Form 1-4-1-503

Listed under "treatment objective" are seven of the most common treatment objectives. More than one treatment objective may be present for any single unit. Additional space is provided for treatment objectives not listed.

When treatment objectives have been identified, the "Burning Required?" column is used to indicate whether or not burning is required to meet the objective.

If the "Burning Required?" column is checked "yes", the "When Can Burning Best Be Accomplished" column is checked as to when burning should be accomplished to meet the treatment objectives. When "Summer" is checked, the Coast or Cascade Range form is to be used to further evaluate the unit.

The "Comments" column is available for any special considerations such as special objectives, pre-treatment efforts required or other factors.

#### Burning Priority Rating Form for the Cascade Range Form 1-4-1-505

This form is adapted for the westside of the Cascade Range north of the North Fork and mainstream of the Umpqua River.

The "Slope" column is used to evaluate the way the steepness of the terrain will affect fire behavior on the unit. Fire will spread and broadcast much more readily on steep slopes than on gentle slopes or flat ground. Points are assigned for each slope class.

The "Special Considerations" column includes a variety of factors which relate to the need to burn during the summer months or to the risk of down-canyon winds advecting smoke into the designated area.

The "Aspect" column is used to consider exposure as it affects drying of fuels and fire behavior. For example, south exposure units receive much more direct sunlight and will be dry enough to burn many more days than north slopes.

The "Silvicultural Consideration" column indicates things such as pre-treatment requirements before burning, availability of essential planting stock or cost and potential for success of alternative treatments.

### FOREST LAND BURNING PRIORITY RATING SYSTEM

The "Soil Consideration" relates to soil which may be damaged if too dry, or too moist soils which preclude burning except during mid-summer drought periods. Also included are areas where excessive soil damage will result from mechanical piling activity.

The points are totaled. Any unit scoring 50 points or more is a high priority unit which may be burned during the Priority Burning Period. Units with less than 50 points will not be burned while the priority burning restriction is in effect.

#### Burning Priority Rating Form For The Coast Range Form 1-4-1-504

The "Plant Community" column relates to the plant community on the site and the difficulty of reforesting the site with desirable species. For example, the Salmonberry-Thimbleberry plant community is extremely difficult to reforest without burning or repeated chemical applications. The most difficult plant community to reforest receives the highest point values.

The "Fuels Overstory" relates to the fuel type that will remain after logging or treatment. Fuel types which will burn readily are rated lower than the Alder-Salmonberry combinations that are difficult to burn under ideal conditions.

The "Location" column relates primarily to marine air influence on drying and the probability of summer fog intrusions. Point values increase as the coastline is approached and in fog influx corridors.

The "Aspect" column uses the same consideration as the Cascade form. North slopes may be burned on much fewer days than south slopes.

The "Fuel Treatment" column relates to the difficulty and effectiveness of alternate treatments and the pre-treatment essential to achieving the burning objectives. Units requiring mass ignition with explosive fuses are given a high point score because it is essential to fire such units at the earliest burn day following installation of the ignition equipment. Such units normally fall into a high category for other reasons also.

As in the Cascades a score of 50 points or more is needed to place a unit in the priority burn category. Units with less than 50 points will not be burned during the Priority Burning Period.

PRELIMINARY PRIORITY BURNING CHART

This chart is to be used to indicate the treatment objective and whether or not burning is required to meet that objective. If burning is indicated, the period when that burning can best be accomplished will be indicated. Units which are checked for summer, spring-summer or summer-fall will then be evaluated on the Coast or Cascade Range Slash Burning Priority Status form for assignment of priority

UNIT: \_\_\_\_\_

TREATMENT OBJECTIVE	Burning Required?		When can burning best be accomplished?			UNIT _____ COMMENTS
	YES	NO	Spring	Summer	Fall	
1. Reduce duff layer, root mat or prepare seed bed						
2. Reduce or eliminate mechanical barrier to planting or seeding						
3. To control competing vegetation						
4. To eliminate or control shading for seeded or planted stock						
5. To control animal habitat, insect or disease						
6. To reduce overall fuel loading in the area to reduce fire hazard						
7. Reduce fire hazard in high risk areas						
8.						
9.						
10.						

UNIT \_\_\_\_\_

Priority Rating \_\_\_\_\_

## A SLASH BURNING PRIORITY RATING FORM FOR THE COASTAL RANGE - WESTERN OREGON

SERIAL COMMUNITY (UNDERSTORY)	FUELS (OVERSTORY)	LOCATION	ASPECT (DOMINANT)	FUEL TREATMENT NECESSARY TO ACHIEVE SUCCESSFUL BURNING
Salmonberry, thimbleberry, red huckleberry, sword fern, vine maple 15	Alder with a salmonberry salal undercover or a brush dominant site or predominately hemlock stand 15	Strong marine influence of coastal strip up to 10 miles inland generally and 15 miles in fog influx* corridors or areas west of the coast range where the fog persists late in the day. 15	NORTH NE NW 20	Unit to be treated with dessicant or herbicide or hand slashed to meet vegetation control objective, and/or unit must be burned during dry period to reduce competing vegetation 18
Salal, bracken fern, ocean spray, vine maple 8	Spruce/hemlock or alder with 10-30% fir 12	West of summit of the Coast Range 8	E SE 8	Unit can be mechanically bunched or slashed, or dessicant or herbicide applied to produce burn which will reduce competing vegetation. 12
	Second growth fir and alder. Fir is 30% or more of the stand. 10	East of the summit of the Coast Range 6	SW W 6	Unit has some hand slashing. No dessicant or herbicide used. Sufficient heavy slashing present to carry broadcast fire. 6
Sword fern, Oregon oxalis 4	Second growth or mature fir stand. 50% or more of stand is fir 4	Valley fringe type 4	SOUTH 4	Burning will meet the vegetation control objective with little or no fuel treatment 4

Point system: 50+ High  
35-50 Medium  
Under 35 Low

\*Fog influx corridors are areas where marine air flows through a drainage into the Valley--included are the Nestucca, Salmon, Siuslaw Yaquina, Alsea, Columbia and Umpqua Rivers.

7/78

## A SLASH BURNING PRIORITY RATING FORM FOR THE CASCADE RANGE IN WESTERN OREGON

(This form is adapted for the west side of the Cascade Range, north of the North Fork and main stream of the Umpqua River)

UNIT \_\_\_\_\_

Priority Rating: \_\_\_\_\_

SLOPE	SPECIAL LOCATION CONSIDERATIONS	ASPECT	SILVICULTURAL CONSIDERATIONS	SOIL CONSIDERATIONS
Less than 15% slope          <u>15</u>	High elevation (short burning season) or critical east wind exposure which cannot be reasonably disposed of at other times.  *High value at Risk exposure          <u>20</u>	N NE NW          Slopes          <u>20</u>	Site preparation by burning is required. Dessicant spray required and can only be burned in this summer period or pretreatment already made, or type of planting stock available is critical.          <u>18</u>	Summer burning required to achieve low intensity burn, or area with high summer soil moisture. Area cannot be mechanically treated.          <u>15</u>
15% to 40% slope          <u>10</u>	Moderate east wind exposure, or Access needs to be put to bed before fall rains.  *Medium value at risk exposure          <u>10</u>	E SE          Slopes          <u>8</u>	Moderate needs for burning by site preparation - other site preparation measures more expensive; or planting stock availabilities fairly critical          <u>10</u>	Critical soils requiring light burn; Mechanical disturbance must be kept to a minimum          <u>8</u>
More than 40% slope          <u>4</u>	Exposed to down canyon air movement into Designated Area.  *Low value at Risk exposure          <u>4</u>	S SW W          Slopes          <u>4</u>	          <u>4</u>	Mechanical treatment possible but undesirable for this site.          <u>4</u>

Priority: 50+ points High  
 35-50 points Moderate  
 Less than 35 points Low

\*Value at Risk Exposure defined in "Forest Residues Management Guidelines".

Example: A unit which must be burned on a very specific prescription to protect high values at risk will have to be burned when prescribed conditions occur. This would fall in the High category since the prescribed conditions may occur during the summer burning period.

NOTE: See "high elevation units" on reverse side of this form.

ESTIMATING TONS OF FUEL CONSUMED  
IN PRESCRIBED BURNS

Quantification of Fuel Loading

The Photo Series for Quantifying Residue\* provides reasonable means for estimating the tons of fuel that may be consumed by a prescribed burn. This publication contains six series of photographs displaying different forest residue loading levels by size class, for areas of like timber types and cutting practice.

Information with each photo includes measured weights, volumes and other residue data, information about the timber stand and harvest and thinning actions and fuel ratings. These photo series provided a fast and easy-to-use means for quantifying existing residues. An evaluation of the portion of each size class of fuel that will remain after burning will provide a reasonable estimate of the fuel which will be consumed by fire when fuel moisture conditions are known. It must be emphasized that this system, while not perfect, will provide reasonable estimates if used consistently. Experience in its use will increase the ease of using it and improve the accuracy of estimates.

Procedures for use of the photo series for estimating fuel tonnage which will be, or has been, consumed by fire follows:

1. Select the loading rank, forest type, forest size class and cutting practice as explained on pages 7 and 8 of the photo series. Selection of the loading rank may best be done by looking at the photo series after selecting the other three characteristics.

Example: Douglas Fir FDO type, size class 4 (20 inch dbh), clear cut (CC) will identify the series of photos from which individual photos can be selected which are most representative of the slash unit being measured.

2. When the representative photo(s) is(are) selected, the data sheets for that fuel loading can be used to make the fuels estimate.

Using 7-Df-4-CC (page 22) as an example:

Fuel Size Class	Tons/Acre
0.25 - 1.0	4.9
1.1 - 3.0	11.3
3.1 - 9.0	22.0
9.1 - 20.0	13.9
20.1 +	45.0

\* USDA Forest Service General Technical Report PNW 51, 1976. Photo Series for Quantifying Forest Residues in coastal Douglas-fir - Hemlock type and the coastal Douglas-fir - hardwood type. Also, Technical Report PNW 52, 1976 (same title) for Ponderosa pine types, Ponderosa pine and associated species type and Lodgepole pine type.

Note, for example, that if the observed 1.1 - 3.0 inch loading was better represented by the photo on page 24, then 5.9 tons/acre (see page 25) would be a part of the ensuing tonnage calculations instead of the 11.3 tons/acre listed above.

Examination of units before and after burning will increase the accuracy of estimating the percentage of each fuel type that will be consumed.

The photo series is one way of determining fuel loading. A second method, the basis upon which the photo series was developed, is actual field sampling of proposed units. It is recommended that pre- and post-burn sampling be done to get a feel for consumption estimates under different moisture conditions.

The procedures for inventorying downed woody material are provided in two U. S. Forest Service technical reports published by the Intermountain Forest and Range Experiment Station in Ogden, Utah. The "Handbook for Inventorying Downed Woody Material" by James K. Brown (USDA General Technical Report INT-16, 1974) and the "Graphic Aids for Field Calculation of Dead, Downed Forest Fuels" by Hal E. Anderson (USDA General Technical Report INT-45, August 1978) are the reference documents to be followed when doing a planar intersect sample.

The intent in using the photo series or by performing an actual transect is to provide consistency in the quantification of fuel loading.

#### Calculation of Woody Fuel Consumption

The calculation of woody fuel consumption should utilize the graph shown on page 4. The graph was taken from the USFS research report, "Predicting Fuel Consumption by Fire Stages to Reduce Smoke from Slash Fires" by Roger Ottmar.

The graph provides an estimate of the large (3" +) fuel consumption as a function of the 1000-hr fuel moisture. Three alternatives are provided to determine the 1000-hr fuel moisture. The moisture can be measured (either by weighing or moisture meter); the NFDR-th value can be utilized; or the ADJ-th can be used. The method for determining as well as the moisture value and weather station are reported on the coding form and when entering data into the computer.

For fuels smaller than 3", total consumption should be assumed when calculating the total woody fuel consumption.

A second method for calculating woody fuel consumption is by doing a post-burn transect.

### Calculation of Duff Consumption

In addition to calculating the woody fuel consumption, the duff consumption needs to be calculated. Again, using the 1000-hr fuel moisture, determine the fuel diameter reduction shown on the graph on page 4. Using the fuel diameter reduction, enter the graph on page 5 to determine the duff consumption in inches, interpolating as necessary. Multiply the inches of duff consumption by 18.7 to determine the tons/acre of duff consumed.

The graph on page 5 was also taken from Ottmar's USFS research report that was referenced above.

### Total Fuel Consumption

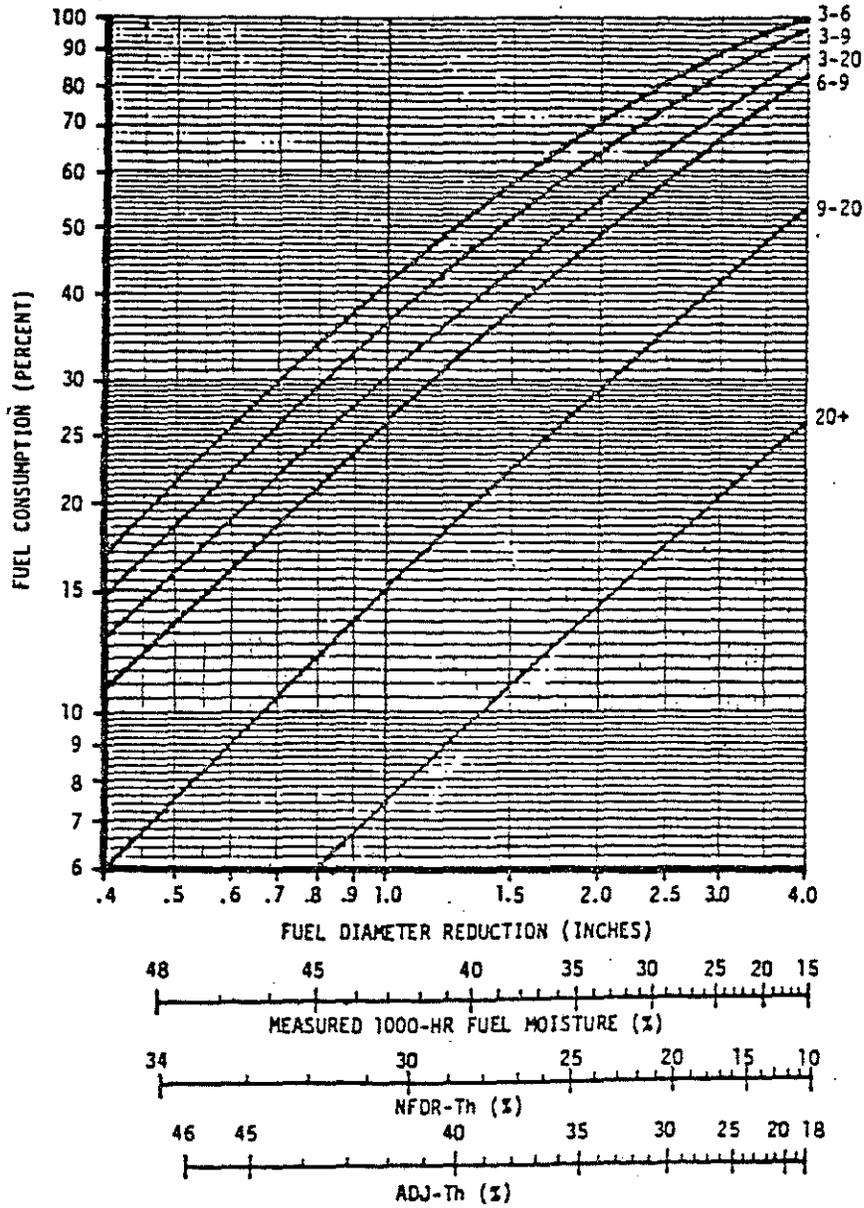
The total fuel consumption is the sum of the woody fuel consumption, both large and small fuel, and the duff consumption. The total, in tons/acre, should be multiplied by the number of acres that are burned (or are expected to be burned) when planning and accomplishing units.

### Pile Burning Fuel Consumption

When piles are being burned, estimate the volume of material in the piles and then, using the procedures provided in the reference documents, determine the tons of material in the piles.

For reporting purposes, assume total consumption of the piles when planning and accomplishing units. Even when piles are part of a broadcast burn and total consumption of fuels from the broadcast operation is not expected, total consumption of the piles burned should be reported.

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02-28-83

Figure 3.--Consumption of large fuel (greater than 3 inches in diameter) estimated from reduction of fuel diameter, measured 1000-hour fuel moisture, NFDR-Th, or ADJ-Th. Based on results of prescribed fires in Douglas-fir/hemlock clearcut and underburn units. Incomplete consumption of small fuels (caused by high humidity or precipitation, for example) causes less large fuel to be consumed than predicted. sustained wind causes a greater amount of large fuel to be consumed than predicted.

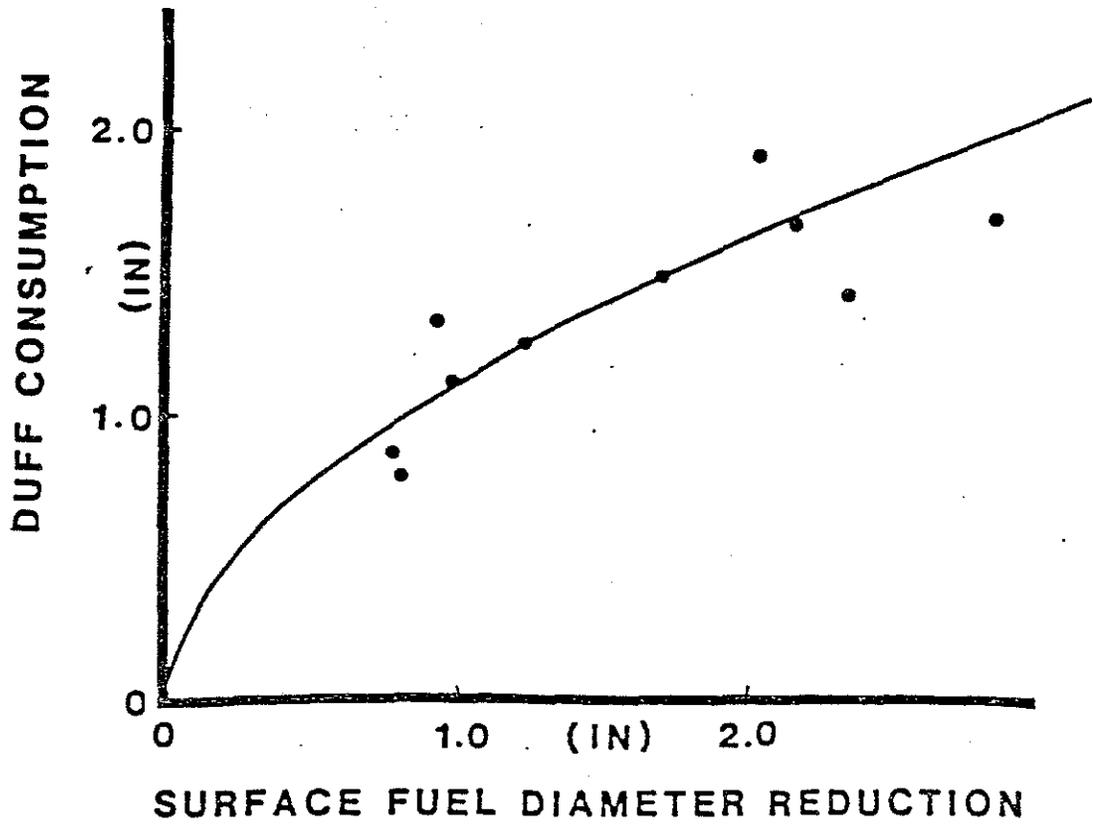


Figure 6.--Duff consumption with regression dependent on surface fuel diameter reduction. Analysis limited to fuel-dependent duff consumption.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 1

### OPERATIONAL DETAILS FOR THE OREGON SMOKE MANAGEMENT PLAN

PURPOSE. This directive provides guidelines and constraints necessary to the successful accomplishment of forest land management objectives and to the maintenance of a satisfactory atmospheric environment in designated areas.

SITUATION. Prescribed burning to reduce hazardous fuel accumulations and prepare logged or brushy areas for reforestation is applied on an average of 111,000\* acres of Oregon's forest land each year. The burning is done on approximately 3,400 separate parcels (units) of forest land.

Some units are burned for hazard reduction only; however, most burning is done to reduce hazard and to improve the chances for successful reforestation of logged sites and brush fields. A reduction in the use of herbicides has increased the importance of fire as a silvicultural tool, particularly in the highly productive forest lands in western Oregon where brush competition can severely reduce the chances for successful reforestation on many sites.

Along with the recognition of the critical role fire has in the successful management of Douglas fir forests has come a critical awareness of the problems smoke from these fires can cause for residents of the state. This awareness has resulted in the development of the Oregon Smoke Management Plan. The original plan for managing smoke from forest lands was first developed by the Department of Forestry in coordination with other forest land management agencies and the forest industry. It was later made into law by the Oregon Legislature.

The Smoke Management Plan consists of the original plan (Directive 1-1-3-410) as defined by Administrative Rule and refinements developed by the Department of Forestry as new knowledge and skills have developed in the science of predicting atmospheric conditions relative to smoke movement.

AUTHORITY. Substantial authority is granted to the Forester by ORS 477.515 to develop a plan for the management of smoke produced by forest land burning. This statute provides that the Department of Forestry and the Department of Environmental Quality shall approve a plan for managing smoke in areas they will designate. The statute also specifies a variety of control measures the Forester may use to administer the plan.

ORS 477.515 also states that the Smoke Management Plan shall be developed by the State Forestry Department in cooperation with federal and state agencies, landowners and organizations that will be affected by the plan. The plan is filed with the Secretary of State and is promulgated as Administrative Rule OAR 629-43-043. The State Forester has administrative authority to develop operating policies, procedures and practices to meet the objectives of the plan.

OBJECTIVE. The objective of the Smoke Management Program is to keep smoke resulting from burning on forest lands from being carried to, or accumulating in designated areas, or accumulating in other areas sensitive to smoke; and to provide maximum opportunity for essential forest land burning consistent with this objective.

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\*This is a running average for the five year period ending in 1980.

OPERATIONAL DETAILS FOR THE OREGON  
SMOKE MANAGEMENT PLAN

POLICY. It is the policy of the Forester to manage prescribed burning on forest land with concern for all aspects of the environment and with particular consideration for the need for continuous forest production on Oregon's forest lands. It is also the policy of the Forester that the Smoke Management Plan, directives and guidelines issued relative to the plan be strictly complied with.

STANDARDS.

The Oregon Smoke Management Plan (Directive 1-1-3-410) provides a specific legal framework for the administration of the forest smoke management program for Oregon.

The State Forester is responsible for the coordination and control of the Oregon Smoke Management System. The plan applies to western Oregon. It is administered with full interagency cooperation with the U.S. Forest Service, Bureau of Land Management, Bureau of Indian Affairs, the Department of Environmental Quality and private forest industry.

The plan instructs each Field Administrator to maintain a satisfactory atmospheric environment in designated areas. The plan requires the Forester and the Field Administrator to continually monitor weather factors, advisories and air quality conditions in designated areas in conducting the burning program.

The plan establishes a set of limitations applicable to specified burning and mixing conditions. These limitations relate to tonnage of fuel per 150,000 acres which, ideally, may be burned under various sets of mixing conditions. Experience has proven these standards are adequate to protect designated areas only under ideal conditions. Frequently, more specific restrictions must be applied to meet air quality objectives.

The various standards used in the administration of the Smoke Management Plan follow:

A. Weather Forecasts

The Salem, Portland and Medford Fire Weather Offices provide twice daily smoke management forecasts. Each forecast provides a general discussion of meteorological conditions that influence air movement and atmospheric mixing conditions which will affect smoke movement and dispersion in the atmosphere.

Specific weather predictions are given for climatic zones within the area. A section of the forecast is devoted to the smoke mixing and dispersion characteristics of the atmosphere within the forecast area. This is determined by the stability of the air mass and the speed and direction of transport winds. Sections of the forecast provide information relative to burning conditions as well as air movement.

An outlook for the day following the forecast period is provided. The period of time covered by the outlook will depend upon the weather influences involved at any given time. Burning will be conducted in accordance with current forecast information.

OPERATIONAL DETAILS FOR THE OREGON  
SMOKE MANAGEMENT PLAN

B. Smoke Management Advisory

Smoke Management Advisories will be issued by the Salem Smoke Management Section during periods when weather is favorable for significant amounts of burning. The advisories provide constraints on burning in areas where the basic Smoke Management Plan may be inadequate to protect Designated Areas.

The advisories are based upon an analysis of the atmospheric conditions affecting smoke transport and dispersion and of the air quality conditions in designated areas which might be affected by forest land burning.

The advisories will be issued immediately after the Portland, Salem and Medford weather forecasts, usually at 8:30 am and 4:00 pm. The morning advisory will regulate the current day's burning. The afternoon advisory will state the next day's expected constraints, and is primarily to assist field units in planning.

Field units planning early morning ignitions (prior to 8:30 am) should use the prior afternoon's advisory for smoke management considerations. Ignitions planned after 8:30 am should adhere to the current morning's advisory.

Field Administrators are encouraged to discuss plans for early morning or night time ignitions with the Smoke Management Coordinator.

A smoke management "Hot Line" is in operation in the Salem Fire Weather Forecast Office. This line provides recorded weather information to any caller at any time. Recorded weather information is updated as follows:

1. During the period when the Priority Burning System is in effect, the previous day's 3:00 PM forecast will be updated at 6:30 AM.
2. At 8:00 AM and 3:00 PM the most current forecast will be recorded.

This information can be obtained by calling 378-2800.

C. Priority Burning System (See Appendix 3)

The Forest Land Burning Priority Rating System (Priority Burning System), was initiated to reduce the amount of forest land burning during the time when the maximum acreage of grass seed fields are being burned in the Willamette Valley. There are approximately 60 days during mid-summer when field burning has been given a high priority for use of the air shed in the valley for smoke dispersal. The Priority Burning System was developed by the Department of Forestry in coordination with the Department of Environmental Quality and with the cooperation of public and private forest land managers.

The Priority Burning System limits forest land burning during the 60-day period to units which must be burned during that time to meet the burning objectives. Only units with a high priority rating will be burned when the Priority Burning System is in effect. The Forester will provide notice to all Field Administrators when the Priority Burning System is initiated and rescinded.

OPERATIONAL DETAILS FOR THE OREGON  
SMOKE MANAGEMENT PLAN

The priority burning period is established by the Department of Forestry upon the recommendation of the Department of Environmental Quality. The exact period varies from year to year and may extend for more or less than 60 days.

The procedures for rating and prioritizing burn unit is included in Appendix 3 of this directive. These procedures will be used on all units which may be burned during the summer months.

D. Air Stagnation Advisories

Air stagnation advisories will be issued by the Weather Service Forecast Office in Portland when atmospheric conditions are such that the potential exists for air pollutants to accumulate in designated areas for an extended period. During such times smoke and other pollutant sources within the designated area will create substantial air quality deterioration without the addition of smoke from outside sources. This condition is recognized in the administration of the Smoke Management Plan.

Smoke management advisories issued during an Air Stagnation Advisory will limit forest land burning to units which will contribute no smoke to a designated area covered by an Air Stagnation Advisory or an Air Pollution Alert. Burning during such periods will be closely controlled.

E. Measurement of Fuel Tonnage

The correct estimation of fuel tons that will be consumed by a burn is very important to the development and improvement of the smoke management program. It is essential that a reasonably accurate estimate of tons of fuel that will be consumed by a fire be reported in the burning plan.

The publication "Photo Series For Quantifying Forest Residues" will be used for making fuel tonnage estimates. Instructions for the use of this publication in estimating tonnage are included in Appendix 4.

A publication has been developed for western Oregon and eastern Oregon forest types.

F. Reporting

Three basic information items are essential to the administration of the burning program. These items are: (1) unit descriptions, (2) planned burns, and (3) accomplished burns. Additional information is needed to provide data for analysis, reporting and evaluation of the program procedures. Reporting will be accomplished in accordance with Appendix 1, Detailed Instructions for the Oregon Smoke Management Reporting System.

RESPONSIBILITY.

- A. State Forester. The State Forester is responsible for the coordination of the Smoke Management Plan and the Operating Details between the National Weather Service, United States Forest Service, Bureau of Land Management, Oregon Forest Protection Association, Department of Environmental Quality, and any regional air quality

OPERATIONAL DETAILS FOR THE OREGON  
SMOKE MANAGEMENT PLAN

authorities. In addition, the State Forester, through the Forest Protection Division, has the responsibility to issue additional restrictions on prescribed burning in situations where the air quality of the entire state or any part thereof is, or would likely become, adversely affected by smoke.

- B. Forest Protection Division - Fire Operations Section. The Fire Operations Section is directly responsible for providing weather forecasting services for smoke management purposes.

Burning advisories will be issued in concurrence with weather forecasts and in coordination with the Department of Environmental Quality (DEQ) when the priority burning restriction is in effect or during air pollution alerts. Burning advisories will be written in clear and concise terms. The Operations Section will provide more specific information when requested by telephone.

The Operations Section will monitor the burning program currently. Monitoring will be intensified on marginal days and will involve aircraft observation and telephone calls to the districts relative to local conditions.

The Operations Section will work with the areas and districts in identifying training needs and in developing training packages.

Operations Section staff will provide assistance on the ground wherever needed. They will maintain a close liaison with field operations through the Smoke Management Meteorologist and normal staff-line relationships.

The Operations Section will maintain a smoke management records system. They will produce an annual summary of burning and smoke management activities. They will also provide available data to meet the immediate needs of staff and line personnel upon request.

- C. Area Directors and District Foresters. Each Field Administrator issuing burning permits under the Smoke Management Plan will manage prescribed burning on forest land with respect to other aspects of the environment in order to maintain a satisfactory atmospheric condition in designated areas. This effort will also be applied to special situations where local conditions warrant in areas not defined as designated areas but which are sensitive to smoke. Accomplishment will involve a consideration of weather forecasts, burning advisories, acreages involved, amounts of material to be burned, evaluation of potential smoke column vent height, direction and speed of smoke drift, residual smoke, mixing characteristics of the atmosphere, and distance from the designated area of each burning operation.

Each Field Administrator will evaluate down-wind conditions prior to implementation of burning plans. Upon notice from the Forest Protection Division that air in the entire state or portion thereof is, or would likely become, adversely affected by smoke, the affected Field Administrator will terminate burning. Upon termination, any burning already under way will be completed; residual burning will be mopped up as soon as practical; and no additional burning will be attempted until approval has been received through the burning advisory.

OPERATIONAL DETAILS FOR THE OREGON  
SMOKE MANAGEMENT PLAN

Field Administrators will make daily reports covering burning operations. Monitoring of smoke behavior will be intensified on marginal days. This will be done by use of lookouts, aerial observation and on-site observation of smoke behavior.

Any wildfire that has the potential for smoke input into a designated area will be reported immediately to communications in the Fire Operations Section.

- D. Department of Environmental Quality (DEQ). The State Forester and the DEQ are required by ORS 477.515 to approve a plan for the purpose of managing smoke in areas they shall designate. The Oregon Smoke Management Plan is the product of this statutory requirement.

The DEQ cooperates with the Department of Forestry in all phases of the administration of the Smoke Management Plan. Particularly important is current and timely information on air pollution levels in designated areas and priority burning periods.

- E. United States Forest Service (USFS), Bureau of Land Management (BLM), and the Bureau of Indian Affairs (BIA). The USFS, BLM and BIA have signed agreements with the Department of Forestry and the DEQ to comply with the Oregon Smoke Management Plan. These agencies have agreed to follow the direction of the Forester in conducting burning operations. They follow the smoke management weather forecasts, smoke management advisories and priority burning restrictions.

National Forests within the state will coordinate currently with the Forester on smoke management and burning plans. The State Director of the Bureau of Land Management has directed BLM field people to comply with the Smoke Management Plan as administered by the State Forester.

- F. Private Forestry Operations. It is the responsibility of private forest operators under Oregon Forest Laws to burn according to the Oregon Smoke Management Plan. They are responsible to burn according to directions from State Forestry field personnel and to do mop-up of the burns necessary to prevent smoke intrusion into designated areas and to prevent fire escape.

Summary:

The State Forester is responsible for the administration of the Smoke Management Plan in Oregon. He does this in coordination with the Department of Environmental Quality and with the cooperation of the public land management agencies.

The Smoke Management Plan places the specific responsibility for making day-to-day decisions upon Field Administrators. The Forest Protection Division is responsible for providing meteorological and technical assistance to Field Administrators and for monitoring the program.

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Objective: The Department of Forestry's communications center operates a computer program to record and process smoke management data. Data is received and transmitted through the State Forestry and U.S. Forest Service teletype systems.

The objectives of the reporting system are to provide a record of:

1. Locations and amounts of planned burning for the current day.
2. Locations and amounts of burning accomplished the previous day.
3. Smoke intrusions, including source, area affected, duration, and information relative to the cause of the intrusion.
4. Annual summaries of data.

Area Included:

The reporting system includes all of western Oregon, plus those parts of Hood River and Wasco Counties within the boundary of the Mt. Hood National Forest, and the part of Klamath County within Crater Lake National Park. Data is grouped by Administrative Units, i.e., each National Forest, Crater Lake Park, and each State Forest Protection District.

Types of Burning to be Included:

All burning related to forest management activities should be included in the reporting system. Some examples are slash and brush disposal after logging, road building, scarification, or burning of brush fields for reforestation. Other examples which should be included are underburning, or brush field burning for stand improvement or wildlife habitat.

Types of Burning That Should Not be Included:

Burning for debris disposal or burning related to \*agricultural activities should not be included in the reporting system. Some examples are household or yard maintenance debris such as paper, leaves, lumber, etc., and grass or grain stubble. Small piled slash areas such as for a homesite should not be included if the amount to be burned is less than 5 tons.

While these examples would not be reported in the Smoke Management Data System, any western Oregon burning subject to permit under ORS 477.515 must conform to the Smoke Management Plan. Also, in some areas "backyard" and stubble burning must be done in compliance with Department of Environmental Quality rules, rather than the Oregon Smoke Management Plan.

- \* The range burning on Class III (Grazing) lands, common in Coos and Douglas Districts, should not be included in the Oregon Smoke Management System (OSMS) Data System. This burning should be reported to Salem daily as a separate item following "Accomplishment Report". For each permit exceeding 5 acres, report township, range, section and acreage burned.

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Procedure:

Three basic steps are involved in the reporting system:

1. A "Unit Description" is submitted to Salem for each "burn unit"\* as provided on Reporting System Coding Sheet (Part I, Form 1-1-3-400). This results in a "Unit Number" assigned to the specific burn unit, usually months or weeks before burning is to be done.
2. "Unit Numbers" of planned burns are submitted by field offices on the day burning is to be done. This results in "Planned Burns" (Part II of Form 1-1-3-400). Planned Burns are listed daily on the teletype network to all users and to DEQ.
3. An "Accomplishment Report" is submitted by field offices the day after burning, again using the "Unit Number" as a reference (Part III of Form 1-1-3-400). The Accomplishment Report is listed daily on the teletype along with Planned Burns.

Detailed instructions for Reporting System Coding Sheet (Form 1-1-3-400)  
(Also see instructions on back of form.)

Part I - Unit Description and Number Assignment.

Example entry for Part I, Form 1-1-3-400 (Unit Description).

Raw Data: This is the information needed from a field office to begin a record for a specific area to be burned. The data may be entered on the form and mailed or sent by teletype. Forms mailed should be addressed to:

Department of Forestry  
Attn: Communications Section  
2600 State Street  
Salem, OR 97310

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\* Unit—this term is used to describe a contiguous area which will be burned at the same time. This could include a right-of-way containing piled slash if the area is considered one project and will be burned at one time.

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Field No.  
Data Entry

1	This example is located in: West Oregon District	WO
2	This example is located in: Benton County	2
3	This example is located in: Township 11S, Rng. 7W, Sec. 12	11S-7W-12
4	Average elevation of the Unit is 1,500 feet above sea level	1500
5	Distance from Designated Area, to nearest mile, is 12 miles	12
6	Type of burn will be broadcast	B
7	Acreage in unit to nearest acre is 15	15
8	Estimated tonnage that will be consumed by fire is 150	150
9	Burn is rated high priority. (See Priority Rating System, this directive and instructions, Part I, Field 9, on back of Form 1-1-3-400)	H
10	The unit is privately owned	P

Summarized for teletype transmittal, this data would appear as follows:

WO,2,11S-7W-12,1500,12,B,15,150,H,P

Teletype transmittal of numerous entries allows a tape of field data to be made as the data is received. This tape allows direct data entry into the computer. Therefore, it is critical that each element of data (field 1, 2, 3, etc.) be separated by a comma. Also, the Township, Range and Section must be separated by a hyphen. When the last data entry (field 10) is entered, do not use a comma. Start a new line by using line feed, carriage return. (On USFS teletypes, it is helpful if the "rubout" key is also used after line feed and carriage return.)

If an error is made at any point in a line of data, type three "X's" (XXX). The computer will recognize "XXX" and ignore the data in that line. Use line feed, carriage return, etc., and start the entry again.

Number Assignment

The Salem Communications Clerk enters the unit description into the computer, then sends a "Unit Verification and Number Assignment" on the teletype, to the appropriate field office(s).

The teletype will appear as follows:

SMOKE MANAGEMENT  
UNIT VERIFICATION AND NUMBER ASSIGNMENT FOR 02/01/81

*Unit No.	WEST OREGON Twp Rge Sec	Elev.	BENTON Dist.	**Type	Acres	Tons	***Tons/Ac.	Owner
912	11S-07W-12	1500	12	B-H	15	150	10	P

- \* Automatically assigned by computer.
- \*\* Type and priority are both listed, i.e., B = Broadcast, H = High priority.
- \*\*\* Automatically calculated by computer.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 10  
APPENDIX 1 p. 4

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Field offices should review these as soon as possible. If any errors are found, contact the Communications Clerk to correct the data.

This completes the entry process, Part I of Form 1-1-3-400.

PART II. Planned Burns

Example entry background: The field has decided to burn Unit No. 912 (the number assigned by the computer in Part I above) today, July 20, 1981. Estimated ignition time is noon. The entire unit will be burned.

Data to be sent to Salem by teletype:

<u>Field No.</u>		<u>Data Entry</u>
1	Unit Number 912	912
2	Estimated ignition time	1200
3	Tonnage to be burned	150

The teletype data line will appear as follows:

912,1200,150

If an error is made at any point on a line of data, three X's should be entered, then use line feed and carriage return, and enter the correct data.

Do not plan right-of-way burns. (See Form 1-3-4-420)

When all planned burns have been received from the field, the Communications Clerk enters the data into the computer, which results in a teletype listing as follows:

SMOKE MANAGEMENT

PLANNED BURNS FOR 07/20/81

Unit No.	WEST OREGON			BENTON			Acres	Tons	**Time
	Twp	Rge	Sec	Elev.	Dist.	Type			
912	11S	07W	12	1500	12	B-H	15	150	1200

\*\* Estimated ignition time. This replaced tons/acre shown on Planned Burns, beginning January 1, 1981.

PART III. Accomplishment Report

Example entry background: Unit 912 was ignited as planned in the above example. However, only half the unit burned. Smoke from the burn entered Corvallis.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 11  
APPENDIX 1 p. 5

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Data to be sent to Salem by teletype on July 21.

<u>Field No.</u>		<u>Data Entry</u>
1	Unit Number	912
2	Actual Ignition Time	1200
3	Actual tonnage burned	75
		*Yes

The teletype data line will appear as follows:

912,1200,75, Yes (Same instructions as above for errors, etc.)

\* Report a smoke intrusion by adding YES at the end of the data field.

When a smoke intrusion occurs, Form 1-1-3-410, Smoke Intrusion Report, also must be completed as soon as practical. Usually, preliminary information can be telephoned. See Appendix 2 Smoke Intrusion Report.

All planned burns must be "accomplished" the following day or on the next business day if the Communications Center is not operational on a weekend or holiday. If no burning was done, the data line would appear as follows:

912,0,0

Units burned during weekends or holidays when the Communications Center is closed should be reported in groups by the date burning was done.

Use Form 1-3-4-420 to report right-of-way burns.

The accomplishment report sent out from Salem Communications Center will appear as follows:

SMOKE MANAGEMENT  
RESULTS SUMMARY FOR 7/21/81\*

Unit No.	WEST OREGON			BENTON			Acres	Tons	**Time
	Twp	Rge	Sec	Elev.	Dist.	Type			
912	11S	07W	12	1500	12	B-H	15	75	1200

\* Burning actually occurred 7/20

\*\* Actual Ignition Time. This replaced tons/acre beginning January 1, 1981.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 12  
APPENDIX 1 p. 6

## REPORTING SYSTEM SMOKE MANAGEMENT PLAN

### Additional Instructions - "Available Tons" and "Tons Burned":

#### Background:

Tons of fuel burned is a critical element in the data system. It is used to estimate emissions from forest burning. It is important to private, state, and federal land managers, and air quality enforcement agencies. Therefore, the reporting of this information must be as accurate as possible. There is no advantage to be gained by knowingly reporting amounts smaller or larger than actually available or actually burned.

#### Entering Data:

When entering data in Part I, Field 8, the tons should be the amount expected to be burned under ideal burning conditions, not the total fuel loading. For example, old growth slash may total 150 tons/acre before burning. After burning it is not uncommon to have as much as 100 tons/acre (usually the larger material) remaining. In this case, 50 tons/acre should be the basis for estimating the "available tons". If the unit area was 10 acres, then  $10 \times 50 = 500$  tons - the amount which should be entered in Part I, Field 8, of Form 1-1-3-400.

#### Planning a Burn:

The data system was modified in 1979 to allow planning all, or part, of a unit on a given day. If only part of a unit will be burned, the tons to be burned that day should be entered. (Part II, Field 3, Form 1-1-3-400.) The computer will list that amount on the "Planned Burn" list for that day.

#### Resulting a Burn:

Report the tons that actually burned.

#### Summaries Available:

In addition to the daily planned burns and results listings, several summary printouts are available. At approximately 3-month intervals, the Communications Clerk will send each field administrative unit the following summaries. Also, they may be obtained at any time by calling the Communications Clerk:

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

1. Available Units. Lists all units that have not been reported as 100% burned. Last item shown is percent of tonnage unburned.

Available Units Format:

SMOKE MANAGEMENT  
AVAILABLE UNITS

WEST OREGON							
Unit	Twp-Rng-Sec	Elev.	Distance	Type	Acres	Tons	Left
912	11S-07W-12	1500	12	B-U-M	15	75	50%
					15*	75*	-

\*Total acres and tons by District.

2. Accomplishment Report. Lists all units that have had any burning done. Tons is the cumulative amount burned prior to the printout date.

Accomplishment Report Format:

SMOKE MANAGEMENT  
ACCOMPLISHMENT REPORT

WEST OREGON						
Unit	Twp-Rng-Sec	Elev.	Distance	Type	Acres	Tons
912	11S-07W-12	1500	12	B-H-M	15	75
1*					15*	75*

\* Total units, acres and tons by District.

3. Problem Summary Report. This lists all burns from which an intrusion was reported. The last item shown is month and day the burn was conducted.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 14  
APPENDIX 1 p. 8

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Reporting Schedules

Unit Descriptions

These may be transmitted any time during office hours; however, field offices should avoid periods when the teletype is scheduled for other data such as incoming weather or fire reports. Also, waiting to submit unit descriptions until the day the unit is to be burned places unreasonable demands on the data system. Whenever possible, these should be sent well before the day burning will occur.

Accomplished and Planned Burns

These are to be sent at 9:30 AM. The Salem Communications Clerk will transmit "Smoke Management Accomplished and Planned Please" at approximately 9:30 AM, after which field units should report in the following format: (Also see Reporting System pages 4-5 this Appendix)

District Identifier, Accomplished (yesterday's burning)

Unit No., Actual Ignition Time, Tons Burned, YES (only if intrusion occurred)

(use a new line for each unit number)

Planned (for today)

Unit No., Estimated Ignition Time, Tons Planned,

(use a new line for each unit number)

End - District Identifier

Smoke Management (Daily summaries from Salem)

As soon as Accomplished and Planned reports are processed in Salem, the Communications Clerk will transmit the summaries to field units and Department of Environmental Quality. Contents of these summaries are shown on pages 4 & 5 of this appendix.

SMOKE INTRUSION REPORT FORM 1-1-3-410

Definition

A smoke intrusion occurs when any visible or monitored smoke from prescribed forest burning enters a Designated Area below that Designated Area's ceiling.

Background

Smoke intrusions vary greatly in duration, concentration and effect on a Designated Area. For example, a smoke layer well above the surface would not affect the monitored air quality in a Designated Area, but is still an intrusion under the Oregon Smoke Management Plan. Smoke accumulating at the surface, and remaining overnight adversely affects air quality more than if smoke drifts through, clearing in an hour or two.

Purpose

This report provides a descriptive record of smoke intrusions, supplemental to the "Problem Burns" reported in the Smoke Management Data System. Reports are annually summarized in the "Smoke Management, Annual Report" compiled by the Smoke Management Section.

Responsibilities

Field units, i.e., State Districts or National Forests, are responsible for monitoring smoke from their burns, and reporting intrusions to the Smoke Management Coordinator:

1. On the burning "Accomplishment Report" given daily, and,
2. Through the use of form 1-1-3-410.

The Salem Smoke Management Coordinator is responsible for:

1. Combining field reports into one intrusion summary when more than one field unit is involved.
2. Liaison with Department of Environmental Quality to develop mutually acceptable descriptive reports of smoke intrusions within 3 days of the occurrence.
3. Completion of Form 1-1-3-410A, summary of meteorological information.
4. Preparing an annual summary of intrusions.

Detailed Instructions

When to report:

Any intrusion is to be reported as soon as possible. If 7-day operations are not in progress at Salem, then report on the first workday after the incident.

SMOKE INTRUSION REPORT FORM 1-1-3-410

It is also helpful to report potential intrusions, as soon as it appears that smoke may enter a Designated Area. This allows the Smoke Management Coordinator to obtain monitoring data prior to and during the incident. It also facilitates public relations work resulting from an incident.

Data Entries (See sample form page 4 of this appendix.)

Smoke Origin

1. The unit number(s) of burns contributing to the intrusion.
2. Date ignition occurred.
3. Name of State District, National Forest (or Crater Lake Park).
4. Wind direction and speed at burn site at time of ignition.
5. Time ignition began, use 24 hour clock time.

Intrusion Description

6. Brief description, including name(s) of communities, and extent of area affected. (For example, smoke entered Willamette Valley near Dallas, drifted SE through Monmouth to Albany.) Check yes if smoke entered city of 10,000 including 3-mile radius around city limits.
7. Date intrusion entered Designated Area (This may be later than date of ignition).
8. Time (24 hour clock) smoke entered Designated Area.
9. Number of hours smoke was present in Designated Area.
10. Check proper box. Main plume refers to smoke produced during active or convective phase of burn. Residual smoke is that which is produced after fire dies down to smoldering phase. Drift smoke is that which accumulates in one area, later moving into a Designated Area, or is split off from a main plume.
11. If smoke in Designated Area was at ground level, enter "surface" or "O" for base elevation. If smoke did not reach the ground, enter best estimate of distance between ground and bottom of smoke cloud.  
  
For depth, enter best estimate of distance from bottom to top of smoke layer.
12. Check box which best describes smoke behavior in the Designated Area. Other descriptive phrases may be substituted if field reporter wishes.
13. Best estimate of visibility in miles in the Designated Area. (Airports are often the best source of information.)

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 17  
APPENDIX 2 p. 3

SMOKE INTRUSION REPORT FORM 1-1-3-410

14. Leave blank if no other visibility impairment was present or several may be checked.
- 15.&16. Self-explanatory.
17. Name of field person reporting the intrusion.

SMOKE INTRUSION REPORT

OREGON SMOKE MANAGEMENT PLAN

This information must be telephoned to Salem, 378-2518, no later than the next workday after intrusion.

Smoke Origin: Unit Number(s) 1 Date Burned 2  
District/Forest 3 Mo. Day Year

Surface Wind Direction & Speed 4 at ignition time 5.

Intrusion Description

Area affected (Portion of DA where smoke was visible or monitored)

6

Did smoke affect populated area? (cities over 10,000 population, plus Lebanon, Tillamook) Yes  No

Date 7 Time 8 smoke entered area. Duration 9 hrs.

Smoke Type: Main Plume  Residual  Drift Smoke

Vertical Characteristics: Base elevation (above terrain) \_\_\_\_\_ ft.  
Depth \_\_\_\_\_ ft.

Behavior: Smoke remained at same level  Smoke rose   
Smoke subsided  Smoke layered & maintained identity   
Smoke dispersed, lost identity

Prevailing Visibility (at time smoke entered area) 13 miles

Other visibility restricting sources present (check those which apply)

- |   |  |
|---|--|
| 1. Field Smoke <input type="checkbox"/>         | 5. Fog <input type="checkbox"/>                |
| 2. Wildfire Smoke <input type="checkbox"/>      | 6. Other (specify) <input type="checkbox"/>    |
| 3. Dust <input type="checkbox"/>                | 7. Unable to Identify <input type="checkbox"/> |
| 4. Resident Emmissions <input type="checkbox"/> |  |

Cause (Your explanation of reason smoke intrusion occurred)

15

Comments: (Any additional information which may clarify report)

16

Reported by 17  
Name

## FOREST LAND BURNING PRIORITY RATING SYSTEM

The Forest Land Burning Priority Rating System (Priority Burning System) identifies units\* which require burning during the summer months to meet silvicultural and reforestation objectives. It provides a means for prioritizing units selected for summer burning into "high", "moderate", and "low", categories.

The objective of the Priority Burning System is to more closely regulate forest land burning during the approximately 60 mid-summer days when field burning is being accomplished in the Willamette Valley. The system insures that only forest units which must be burned during the hotter, drier mid-summer period will be burned while field burning is taking place.

The area covered by the system is that part of western Oregon north of the North Fork and main stem of the Umpqua River, excluding the Steamboat and Diamond Lake Districts of the Umpqua National Forest.

Rating forms for the Cascade and Coast Ranges were developed and field tested by two interagency-industry task force groups. The system is designed to identify those units which, because of the nature of the site, fuel and silvicultural requirements, must be burned during the hotter, drier mid-summer period.

The Priority Burning System is closely coordinated with the Department of Environmental Quality. The start and ending of the priority period\*\* will be determined by the Forester with the advice of the DEQ on field burning levels. The priority burning systems will not be in effect when field burning is stopped, or at very low activity levels. Also, non-priority burning may be allowed in specified areas when the Forester determines that such burning will not impact the Willamette Valley.

Notification of the beginning, ending, and any areas exempt from the Priority Burning System will be included with daily smoke management advisories issued from Salem.

---

\* Unit: A term used to describe a contiguous area of forest land with specific boundaries upon which some activity or activities will be conducted.

\*\* Priority Burning Period: It is a period of time when only "high priority" forest land units will be burned. The 60 days is an approximate span of time; the period will generally begin in mid-July when heavy field burning has begun and will end when conditions no longer permit this level of burning in early September.

### FOREST LAND BURNING PRIORITY RATING SYSTEM

Certain special areas will be classed as high priority without use of the priority rating procedure. Such areas are characterized by special or unique management objectives which make use of a rating system impractical. Such units include:

- Vegetation management areas, such as huckleberry fields.
- Visual management areas which must be burned under very restrictive prescriptions.
- Special watershed areas requiring burning.
- Game habitat improvement burning.
- Campground development.
- Special reseach projects.
- Right-of-way burning which must be done during the summer.
- Prescribed under-burning.
- \*High elevation units.

- 
- \* High elevation units in the Cascades which may be burned with no risk of impact on the designated area will be considered high priority under the following circumstances:
- a. High elevation units must be at least 1000 feet in elevation above the designated area ceiling (designated area ceiling is 2500 feet). Thus, any unit must be at or near 3500 feet elevation to fall into this category.
  - b. In no event will any unit burned in this category be less than 1000 feet above a stable layer above the designated area.
  - c. There must be a sustained westerly air flow in the vicinity of the unit with no probability of a wind shift toward the designated area within 12 hours of ignition time.
  - d. All units must be at least 40 miles from the designated area.
  - e. All units must be cleared through the Smoke Management Coordinator prior to ignition.

## FOREST LAND BURNING PRIORITY RATING SYSTEM

### Instructions For Using Priority Rating Forms For Evaluating Forest Land Burning Units

The Preliminary Priority Burning Chart will be used for all units which are desirable to burn during the summer months. This chart is used to indicate the treatment objective for the site and whether burning is needed. If burning is needed, the season when burning objectives can best be met are identified. If summer burning is required or desirable, the appropriate Coast Range or Cascade Range Prioriting Rating Form is used.

#### Using the Preliminary Priority Burning Chart Form 1-1-3-403

Listed under "treatment objective" are seven of the most common treatment objectives. More than one treatment objective may be present for any single unit. Additional space is provided for treatment objectives not listed.

When treatment objectives have been identified, the "Burning Required?" column is used to indicate whether or not burning is required to meet the objective.

If the "Burning Required?" column is checked "yes", the "When Can Burning Best Be Accomplished" column is checked as to when burning should be accomplished to meet the treatment objective. Where "Summer" is checked, the Coast or Cascade Range form is to be used to further evaluate the unit.

The "Comments" column is available for any special considerations such as special objectives, pre-treatment efforts required or other factors.

#### Burning Priority Rating Form for the Cascade Range Form 1-1-3-402

This form is adapted for the westside of the Cascade Range north of the North Fork and mainstream of the Umpqua River.

The "Slope" column is used to evaluate the way the steepness of the terrain will affect fire behavior on the unit. Fire will spread and broadcast much more readily on steep slopes than on gentle slopes or flat ground. Points are assigned for each slope class.

The "Special Considerations" column includes a variety of factors which relate to the need to burn during the summer months or to the risk of down-canyon winds advecting smoke into the designated area.

The "Aspect" column is used to consider exposure as it affects drying of fuels and fire behavior. For example, south exposure units receive much more direct sunlight and will be dry enough to burn many more days than north slopes.

The "Silvicultural Consideration" column include things such as pre-treatment requirements before burning, availability of essential planting stock or cost and potential for success of alternative treatments.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 22  
APPENDIX 3 p. 4

### FOREST LAND BURNING PRIORITY RATING SYSTEM

The "Soil Consideration" relates to soil which may be damaged if too dry, or too moist soils which preclude burning except during mid-summer drought periods. Also included are areas where excessive soil damage will result from mechanical piling activity.

The points are totaled. Any unit scoring 50 points or more is a high priority unit which may be burned during the Priority Burning Period. Units with less than 50 points will not be burned while the priority burning restriction is in effect.

#### Burning Priority Rating Form For the Coast Range Form 1-1-3-401

The "Plant Community" column relates to the plant community on the site and the difficulty of reforesting the site with desirable species. For example, the Salmonberry-Thimbleberry plant community is extremely difficult to reforest without burning or repeated chemical applications. The most difficult plant community to reforest receives the highest point values.

The "Fuels Overstory" relates to the fuel type that will remain after logging or treatment. Fuel types which will burn readily are rated lower than the Alder-Salmonberry combinations that are difficult to burn under ideal conditions.

The "Location" column relates primarily to marine air influence on drying and the probability of summer fog intrusions. Point values increase as the coastline is approached and in fog influx corridors.

The "Aspect" column uses the same consideration as the Cascades form. North slopes may be burned on much fewer days than can south slopes.

The "Fuel Treatment" column relates to the difficulty and effectiveness of alternate treatments and the pre-treatment essential to achieving the burning objectives. Units requiring mass ignition with explosive fuses are given a high point score because it is essential to fire such units at the earliest burn day following installation of the ignition equipment. Such units normally fall into a high category for other reasons also.

As in the Cascades, a score of 50 points or more is needed to place a unit in the priority burn category. Units with less than 50 points will not be burned during the Priority Burning Period.

UNIT \_\_\_\_\_

Priority Rating \_\_\_\_\_

A SLASH BURNING PRIORITY RATING FORM FOR THE COASTAL RANGE - WESTERN OREGON

SERIAL COMMUNITY (UNDERSTORY)	FUELS (OVERSTORY)	LOCATION	ASPECT (DOMINANT)	FUEL TREATMENT NECESSARY TO ACHIEVE SUCCESSFUL BURNING
Salmonberry, thimbleberry, red bucklerberry, sword fern, vine maple <u>15</u>	Alder with a salmonberry salal undercover or a brush dominant site or predominately hemlock stand <u>15</u>	Strong marine influence of coastal strip up to 10 miles inland generally and 15 miles in fog influx* corridors or areas west of the coast range where the fog persists late in the day. <u>15</u>	NORTH NE NW <u>20</u>	Unit to be treated with dessicant or herbicide or hand slashed to meet vegetation control objective, and/or unit must be burned during dry period to reduce competing vegetation <u>18</u>
Salal, bracken fern, ocean spray, vine maple <u>8</u>	Spruce/hemlock or alder with 10-30% fir <u>12</u>	West of summit of the Coast Range <u>8</u>	E SE <u>8</u>	Unit can be mechanically bunched or slashed, or dessicant or herbicide applied to produce burn which will reduce competing vegetation. <u>12</u>
	Second growth fir and alder. Fir is 30% or more of the stand. <u>10</u>	East of the summit of the Coast Range <u>6</u>	SW W <u>6</u>	Unit has some hand slashing. No dessicant or herbicide used. Sufficient heavy slashing present to carry broadcast fire. <u>6</u>
Sword fern, Oregon oxalis <u>4</u>	Second growth or mature fir stand. 50% or more of stand is fir <u>4</u>	Valley fringe type <u>4</u>	SOUTH <u>4</u>	Burning will meet the vegetation control objective with little or no fuel treatment. <u>4</u>

Point system: 50+ High  
35-50 Medium  
Under 35 Low

\*Fog influx corridors are areas where marine air flows through a drainage into the Valley--included are the Nestucca, Salmon, Siuslaw Yaquina, Alsea, Columbia and Umpqua Rivers.



"High elevation Units" which may be burned with no risk of impact will be considered high priority under the following circumstances:

- a. High elevation units must be at least 1000 feet in elevation above the designated area ceiling (designated area ceiling is 2500 feet). Thus, any unit must be at or near 3500 feet elevation to fall into this category.
- b. In no event will any unit burned in this category be less than 1000 feet above a stable layer above the designated area.
- c. There must be a sustained westerly air flow in the vicinity of the unit with no probability of a wind shift toward the designated area within 12 hours of ignition time.
- d. All units must be at least 40 miles from the designated area.
- e. All units must be cleared through the Smoke Management Coordinator prior to ignition.

PRELIMINARY PRIORITY BURNING CHART

This chart is to be used to indicate the treatment objective and whether or not burning is required to meet that objective. If burning is indicated, the period when that burning can best be accomplished will be indicated. Units which are checked for summer, spring-summer or summer-fall will then be evaluated on the Coast or Cascade Range Slash Burning Priority Status form for assignment of priority

UNIT: \_\_\_\_\_

TREATMENT OBJECTIVE	Burning Required?		When can burning best be accomplished?			UNIT _____ COMMENTS
	YES	NO	Spring	Summer	Fall	
1. Reduce duff layer, root mat or prepare seed bed						
2. Reduce or eliminate mechanical barrier to planting or seeding						
3. To control competing vegetation						
4. To eliminate or control shading for seeded or planted stock						
5. To control animal habitat, insect or disease						
6. To reduce overall fuel loading in the area to reduce fire hazard						
7. Reduce fire hazard in high risk areas						
8.						
9.						
10.						

Protection  
6/82 P.N. 629

DIRECTIVE  
1-1-3-411 p. 26  
APPENDIX 3 p. 8

### ESTIMATING TONS OF FUEL CONSUMED IN PRESCRIBED BURNS

The Photo Series for Quantifying Residue\* provides reasonable means for estimating the tons of fuel per acre that will be consumed by a prescribed burn in residue left after logging. This publication contains 6 series of photographs displaying different forest residue loading levels, by size class, for areas of like timber types and cutting practice.

Information with each photo includes measured weights, volumes and other residue data, information about the timber stand and harvest and thinning actions, and fuel ratings. These photo series provide a fast and easy-to-use means for quantifying existing residues. An evaluation of the portion of each size class of fuel that will remain after burning will provide a reasonable estimate of the fuel which will be consumed by fire. It must be emphasized that this system, while not perfect, will provide reasonable estimates if used consistently. Experience in its use will increase the ease of using it and improve the accuracy of estimates.

Procedures for use of the photo series for estimating fuel tonnage which will be, or has been, consumed by fire follows:

1. Select the loading rank, forest type, forest size class, and cutting practice as explained on page 7 and 8 of the photo series. Selection of the loading rank may best be done by looking at the photo series after selecting the other three characteristics.

Example: Douglas Fir (FD0 type, size class 4 ( 20 inch dbh), clear cut (CC) will identify the series of photos from which a photo can be selected which is most representative of the slash unit being measured.

2. When the representation photo is selected the Data sheet for that fuel loading can be used to make the fuels estimate.

Using 7-Df-4-CC (page 22) as our example and assuming:

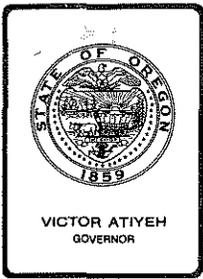
<u>Fuel size class</u>	<u>Weight/Acre</u>	<u>% that will be burned</u>
0.25-1.0	4.9	100%
1.1-3.0	11.3	95%
3.1-9.0	22.0	60%
9.0-20.0	13.9	20%
20.1+	45.0	10%

The following calculations will give a tonnage estimate per acre:

$$\begin{array}{r} (4.9 \times 100\%) + (11.3 \times 95\%) + (22.0 \times 60\%) \\ + (13.9 \times 20\%) + (45.0 \times 10\%) = \text{Tons per acre} \\ 4.9 + 10.7 + 13.2 + 2.8 + 4.5 = 36.1 \text{ tons per acre.} \end{array}$$

Examination of units before and after burning will increase the accuracy of estimating the percentage of each fuel type that will be consumed.

\* USDA Forest Service General Technical Report PNW 51, 1976. Photo Series for Quantifying Forest Residues in the coastal Douglas-fir - Hemlock type and the coastal Douglas-fir - hardwood type. Also Technical Report PNW-52, 1976 (same title) for Ponderosa pine types, Ponderosa pine and associated species type and Lodgepole pine type.



## *Environmental Quality Commission*

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### MEMORANDUM

To: Environmental Quality Commission  
From: Director  
Subject: Agenda Item No. E, October 24, 1986, EQC Meeting

Proposed Adoption of State Air Quality Implementation Plan Revisions (OAR 340-20-047, Section 5.2) to Address Visibility Protection in Class I Areas

### Background

On December 2, 1980, the Environmental Protection Agency (EPA) published rules for visibility protection for Federal Class I Areas (40CFR 51.300-307). The rule requires the states to "Develop programs to assure reasonable progress toward meeting the national goal of preventing any future and remedying any existing impairment of visibility in mandatory Class I Federal Areas within which impairment results from man-made air pollution." Oregon has 12 Class I Areas (11 Wilderness Areas and 1 National Park). An assessment of visibility in Oregon's Northern and Central Cascade Wilderness Areas indicates that visibility is impaired by man-made air pollution an average of 25 percent of the summer daylight hours. Current provisions of the SIP do not contain provisions to correct man-made visibility impairment within Oregon's Class I Areas.

The EPA rule requires that the states adopt State Implementation Plan (SIP) revisions in two phases; (1) rules committing the states to operate a visibility monitoring program and New Source Review for visibility impairment and (2) adoption of short and long-term visibility control strategies, Best Available Retrofit Technology and state-Federal Land Manager coordination. The SIP must also address the issue of integral vistas. EPA and court-mandated deadlines require rules be adopted for both phases by December, 1986.

### Problem Statement

In its current form, the visibility protection provisions of the SIP are inadequate. They do not meet EPA requirements and are not sufficient to assure "reasonable progress" in achieving Clean Air Act visibility protection requirements. If the Department does not adopt and submit rules to correct these deficiencies by December, 1986, EPA will be required, under the terms of the Washington D.C. Court of Appeals decisions, to propose a program for Oregon. This program may not be compatible with present Oregon rules and policies.

### Rule Development

The Commission adopted revisions to Oregon's New Source Review Rule and visibility monitoring commitments (Agenda Item No. J, November 22, 1985 EQC Meeting) completing the first phase rule adoption requirements. During the period of September, 1985 to March, 1986, the Department worked with the Oregon Visibility Advisory Committee to address the EPA Phase 2 requirements, focusing on adoption of short and long-term visibility control strategies for forest prescribed burning and Willamette Valley field burning, the two primary causes of visibility impairment in the Northern and Central Cascade Class I Areas. A 14-member Advisory Committee was composed of representatives of the U.S. Forest Service, National Park Service, Bureau of Land Management, Oregon forest industries, Oregon Seed Council, Oregon Department of Forestry (ODOF), environmental groups, tourism and the public-at-large. On March 13, 1986, the Advisory Committee adopted a Visibility Protection Plan acceptable to the Department and the EPA. As noted below, the environmental groups represented on the Committee did not fully support adoption of the Plan. The EQC authorized public hearing on the proposed Visibility Protection Plan (Agenda Item F, June 13, 1986 EQC Meeting).

Briefly, the Visibility Protection Plan requires protection of Oregon and Washington Class I Areas during the period of the July 4 weekend to Labor Day (inclusive). The Plan expires three years from the date of adoption at which time a replacement program of equal or greater visibility protection will need to be adopted. Forest prescribed burning in Western Oregon would be restricted through a general prohibition on Northern and Central Cascade burning within and north of the Willamette National Forest (except during naturally impaired periods), coastal prescribed burning would be managed to ensure that smoke would not be carried into Class I Areas and Willamette Valley field burning would be restricted on weekend days during the protection period. Long-range (15 year) strategies include a commitment for a 22 % reduction in western Oregon prescribed burning emissions and future research to expand residue utilization and improve burning techniques. The Plan is expected to result in a 30 percent reduction in the frequency of substantial visibility impairment in Central Oregon Cascade Wilderness Areas within the next 5 years and a 40-50 percent reduction over the next 15 year period.

### Public Testimony

Five joint public hearings were held with the State of Oregon Department of Forestry to receive public comment on the Visibility Protection Plan and proposed revisions of the forest prescribed burning Smoke Management Plan (SMP). The SMP is a key element of the Visibility Protection Plan as it is the mechanism through which the forest prescribed burning control strategy is implemented. Attachment 2 summarizes the public testimony received. Key issues are discussed below:

1. Opposition to the Visibility Protection Plan was voiced by a number of forest land managers who feel that additional restrictions to forest prescribed burning would result in unreasonable costs, loss of productivity and jobs. Other persons, however, felt that the Plan did not provide a sufficient level of visibility protection. These issues were considered by the Visibility Advisory Committee during the strategy development process. The Plan adopted by the Committee represented a compromise position that was not totally acceptable to any of the committee members.

During the Visibility Advisory Committee Plan adoption process, the Oregon Environmental Council, Sierra Club and Oregon Natural Resources Council representatives conditioned their support of the Visibility Protection Plan to the (a) adequate implementation of the prescribed burning strategy elements through the ODOF Smoke Management Plan and (b) the addition of adequate enforcement provisions to the Smoke Management Plan. Following review of the proposed ODOF Smoke Management Plan, these groups took the position that the proposed ODOF Smoke Management Plan does not contain adequate enforcement provisions. As described in the attached Hearings Officer's Report, these groups feel that the Visibility Protection Plan does not fully meet the requirements of the Clean Air Act since it does not provide year around protection of Class I Area visibility nor does it adequately protect visibility for all of Oregon's Class I areas. As a result, these groups have not fully supported adoption of the Visibility Protection Plan. The Department's position on these issues is discussed under Issues 2 and 3, below.

2. Inadequacies of the Visibility Protection Plan were the point of much comment. The Oregon Environmental Council, Sierra Club and other environmental groups do not fully support the Plan because of the lack of year-around Class I area visibility protection. The rules proposed for adoption have not been changed in response to this testimony since the Clean Air Act and EPA regulations only require that state visibility protection programs assure "reasonable progress" toward attainment of the national visibility goal (40CFR Part 51.300(a)). The issue of an annual protection plan was discussed by the Visibility Advisory Committee but was not recommended for inclusion in the Plan at this time. The Committee felt that, as a first step, the Plan should focus on the period of highest Class I Areas visitation, the July 4 weekend to Labor Day.

Periodic review of the visibility protection period will occur at annual and three year intervals, at which time an extension of the protection period may be considered, if warranted and feasible.

3. The enforceability of the Oregon Department of Forestry Smoke Management Plan was questioned in the testimony. The ODOF Smoke Management Plan Administrative Rule and Directives are an important element of the prescribed burning visibility control strategy and must be submitted to the Environmental Protection Agency with the adopted Visibility Protection Plan as a revision to the State Implementation Plan (SIP). Since the revised Smoke Management Plan will be a part of the SIP, the Smoke Management Plan becomes subject to federal enforcement action and citizen suit. The Department feels that inclusion of the Smoke Management Plan in the SIP ensures that it is enforceable.

Since the public hearings, the Department has met with the Department of Forestry to discuss two improvements to the enforceability of the SMP. ODOF has confirmed its intent to pursue legislation to gain authority to levy civil penalties for violation of the Forest Practices Act, of which prescribed burning is a part. Previously, ODOF's only remedial action has been through court action. ODOF has also modified the SMP to include a commitment to conduct and document field audits of approximately 1 percent of the units burned annually to monitor compliance with the SMP Administrative Rule, Directives and daily burning instructions. DEQ expects to review such records and participate in a number of the field audits.

4. The adequacy of the Cost-Benefit Study commissioned by the Department was viewed by persons on both sides of the issue as misleading. The report, "Cost/Benefit Analysis of Impact Reduction Alternatives for Prescribed Burning in Western Oregon", was prepared for the Department by Engineering-Science, Inc., OMNI Environmental Services, Resource Economics International and Dr. Thomas Crocker of the University of Wyoming, all well qualified professionals. While the Department recognized prior to beginning the study that an economic analysis of prescribed burning costs and visibility benefits would be extremely difficult and controversial, such an analysis was requested by the forest industry and was felt to be an important input during development of the proposed rules. In response to forest land manager concerns, the study was expanded to evaluate potential impacts on long-term forest productivity. Every attempt was made to solicit input from the forest land managers during development of the document.

Estimates of visibility benefits were directed by Dr. Crocker following methods described in "EPA Visibility Benefits Assessment Guidelines" (EPA-450/5-81-001). Results from the visibility benefits analysis were based on public opinion survey developed by Dr.

Crocker. The surveys were conducted at Portland's Pittock Mansion and an at Central Oregon recreational areas near Class I areas. Results from the surveys are generally consistent with other studies conducted in other states by the EPA and National Park Service (\$30-50 per household in visibility improvement benefit per year Vs. \$56 per household in Portland). Many felt that visibility benefits associated with views of the Cascade peaks from the Willamette Valley should not be included in the analysis because the Clean Air Act visibility provisions are limited to views within Class I Areas. The Department, however, feels that benefits derived by improving visibility of the Cascades from the Willamette Valley are significant indirect strategy benefits which should be identified in the analysis. Further, in view of the large benefit-to-cost ratio (25:1) identified by the study, it is still likely that the program benefits will offset control strategy costs even if significant assumption errors were made during the study.

5. Inclusion of new wilderness areas under the Visibility Protection Plan was another major issue. The Department recognizes the need to proceed with an evaluation of the 22 new Wilderness Areas set aside by the 1984 Oregon Wilderness Bill. The evaluation will determine if the additional lands (greater than 5000 acres) should be redesignated as Class I Areas and, in addition, if the lands recommended for redesignation should be afforded visibility protection under the provision of the Visibility Protection Plan. The evaluation will be conducted in cooperation with the Federal Land Managers culminating in a report of the Department's finding by March, 1989. A request for public hearing authorization should occur by July, 1989 with adoption of SIP revisions by October, 1989 if new inclusions are warranted. This is compatible with the schedule for adoption of a revised Visibility Protection Rule which will replace the currently proposed 3 year Visibility Protection Plan.
6. Removal of exemptions for hardwood conversion burning was felt by many commentators to seriously limit the effectiveness of the Visibility Protection Plan and should therefore not be allowed. The Visibility Advisory Committee, in discussing this issue, felt that since hardwood conversion units (estimated at 1200 acres) are only dry enough to burn during the July 4-Labor Day period, an exemption should be recommended to the Department. The Plan does, however, require that hardwood conversion units burning exempted by the rule must be conducted such that the smoke is not knowingly directed into Oregon or Washington Class I Areas. This requirement was intended to ensure that necessary hardwood exemption burning could be conducted with minimal impact on Class I Area visibility.
7. Environmental Policy Act (NEPA) requirements relative to forest prescribed burning was another issues. Testimony was received that Federal Land Manager prescribed burning programs have not been subject

to the Environmental Impact Statement (EIS) analysis required by NEPA. The National Environmental Policy Act of 1969 (NEPA) requires federal agencies to consider environmental issues in their decision-making process. Section 102 of the Act requires all Federal agencies to include, in all proposals for federal actions, a detailed statement of the environmental impact of the proposed action. The Energy Supply and Environmental Coordination Act (15 USC 793 (c) (1)) however, specifically exempts State Implementation Plans from NEPA requirements, placing the issue outside of the scope of the proposed rules. This issue concerns federal agency compliance with federal laws. Testimony relative to this issue has been forwarded to the USDA Forest Service and Bureau of Land Management.

8. Designation of all of Oregon's Class I Areas as "Smoke Sensitive Areas", assuring visibility protection for all Class I lands, was raised as an issue. The proposed Visibility Protection Plan sets aside Northern and Central Oregon Cascade Class I Areas as lands to be protected during the July 4-Labor Day period under the Smoke Management Plan. Other Oregon Class I Areas are not similarly designated since they are located outside of the "restricted area" boundaries of the Department of Forestry's Smoke Management Plan and significant visibility impairment has not been identified.

In response to these concerns, the U.S.D.A. Forest Service has committed to protection of visibility within all of Oregon's Class I Areas through the smoke management provisions of the National Forest Management Plans during the July 4 weekend-Labor Day period. Changes to the proposed Visibility Protection Plan prescribed burning control strategy have been made to reflect these commitments. During the three-year program review, development of a statewide Smoke Management Program will be evaluated and discussed with the Department of Forestry, as will consideration of statewide regulation of other Federal Land Manager and agricultural burning activity.

9. Wording of the prescribed burning emergency clause element ("undue, adverse economic impact") of the Visibility Protection Plan was viewed by many as too vague. This clause provides for a waiver of the summer burning restrictions if highly unusual weather conditions severely restrict spring burning activity. In adopting this wording, the Oregon Visibility Advisory Committee recognized the need for a sufficient degree of Plan flexibility to allow consideration of a diversity of possible situations. The emergency clause requires the consent of both the State Forester and the Director of the Department. In view of trial nature of the Visibility Protection Plan and a lack of experience in implementing the Plan's burning strategies, it is felt that the wording of the clause should not be changed but rather that the judgment of the Directors should guide implementation of the emergency clause.

10. Inclusion of an emergency escape clause for Willamette Valley agricultural field burning was also requested by the Oregon Seed Council. The intent of the clause is to provide emergency relief from the weekend field burning restrictions included in the Visibility Protection Plan in the event of unusual weather or burning conditions which may severely limit the accomplished burning. Exemption from the Visibility Plan restrictions could be approved only by the Director of the Department. To ensure equity between the forest prescribed burning and field burning elements of the proposed rule and in recognition of the necessity for an escape clause for field burning, the Department has incorporated a provision similar to the forest prescribed burning emergency clause into the proposed rule.
11. Forest prescribed burning should be permitted during the July 4 weekend-Labor Day period in the Western Cascades under the provisions of the Smoke Management Plan, was felt by many to provide a greater opportunity for forestry burning while protecting Class I Areas from visibility impairment. Revision of the Visibility Protection Plan to accommodate this testimony would be a major departure from the Plan adopted by the Visibility Advisory Committee and, in the judgment of the Department, may seriously compromise the effectiveness of the Plan, especially as it applies to strategy benefits to integral vista protection. These changes have not been included in the proposed rule.
12. Restrictions to coastal burning specified in the Visibility Protection Plan were felt by some to be unwarranted or difficult to implement. The proposed rules require that Western Oregon coastal burning during the July 4 weekend-Labor Day period be conducted such that smoke would not be transported into Oregon or Washington Class I Areas. The Department believes that coastal burning can adversely impact Class I Areas and that some regulation is warranted. In preparing Smoke Management forecasts of plume transport, meteorologists would be asked to consider upper level winds and likely transport conditions during the next 2 day period in recognition that prescribed burning plumes which impair visibility may travel great distances downwind from their point of origin. This provision of the proposed rule has not been changed. To do so would be a significant departure from the strategy adopted by the Visibility Advisory Committee. This provision of the rule and the Class I area benefits of restricting coastal burning will be evaluated during the periodic Plan reviews.
13. The consistency of the Visibility Protection Plan with state planning goals was questioned by several persons. Specifically, testimony was offered that the proposed rules are inconsistent with state planning Goal 3 (Preservation of Agricultural Lands), Goal 4 (conservation of forest lands), Goal 5 (consistency with county comprehensive plans) and Goal 9 (economy of the state). These are issues which are addressed through the A-95 Intergovernmental Agency Review process. The proposed rules were submitted for A-95 agency review following

authorization for public hearings. No adverse comments were received from the Land Conservation and Development Commission (LCDC) or any other agencies during this process. Subsequent review by LCDC staff also resulted in a finding that the rules were consistent with all of the planning goals.

### Summation

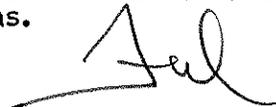
1. In December, 1980, the Environmental Protection Agency (EPA) promulgated a rule requiring states to incorporate visibility protection for Class I Areas into their State Implementation Plans (SIPs). Recent court decisions required that the SIP revision occur in two phases; (1) adoption of visibility monitoring and New Source Review rules for visibility protection and (2) adoption of Class I Area short and long-term visibility control strategies, Best Available Retrofit Technology, integral vistas and state-Federal Land Manager coordination mechanisms. The Department adopted rules fulfilling the Phase I requirements in November, 1985. The rules proposed for adoption will fulfill the Phase 2 SIP requirements. EPA and court-mandated deadlines require that the Phase 2 rules be adopted by December, 1986.
2. Visibility monitoring during the summers of 1982-1985 has determined that substantial visibility impairment occurs on about 25 percent of the summer daylight hours in the Northern and Central Oregon Cascade wilderness areas. The impairment is primarily caused by forest prescribed burning and Willamette Valley grass field burning. The proposed Visibility Protection Plan control strategy is expected to reduce the frequency of substantial impairment by up to 50 %. The Plan includes (1) a prohibition on western Oregon forest prescribed burning in the Cascades north of Eugene during the July 4 weekend-Labor Day period; (2) a requirement that coastal burning be conducted in a manner that will assure that smoke will not be carried into the Class I Areas; (3) restrictions on grass seed field burning on weekends during the protection period and commitments for long-term emission reductions from prescribed forest and grass field burning. The strategy will remain in effect for 3 years following adoption at which time a replacement strategy of equivalent or greater visibility protection will be adopted.
3. The Phase 2 Visibility Protection Plan proposed for adoption was recommended by the Oregon Visibility Advisory Committee in March, 1986. The recommended plan is acceptable to the Department and EPA. The Commission authorized public hearings on the proposed rules on June 13, 1986. Public hearings were held in August, 1986 at five locations, resulting in testimony from 235 persons.
4. Adoption of the proposed rule is generally supported by the U.S.D.A. Forest Service, U.S.D.I Bureau of Land Management, U.S.D.I National Park Service, Oregon Forest Industries Council, Oregon Seed Council, the Oregon Farm Bureau and others. Environmental groups feel that the

Plan is not as protective of visibility as it should be in that it does not include all Class I Areas or provide year around protection. They have also expressed concern about the enforceability of the Plan since it is implemented, in part, through the Department of Forestry's Smoke Management Plan.

5. Based on testimony received at the public hearings, changes have been incorporated into the proposed rules (1) committing the Department to complete a review by March, 1989 of the wilderness area set aside under the 1984 Oregon Wilderness Bill. The review will determine if these lands should be redesignated Class I and afforded visibility protection, (2) incorporating an emergency escape clause for Willamette Valley field burning in the event of unusual conditions that may result in an undue economic impact on the industry and (3) inclusion of the U.S.D.A. commitment to protect visibility within all of Oregon's Class I Areas during the July 4 weekend-Labor Day period. Enforceability of the Smoke Management Plan will be improved through the ODOF's pursuit of legislation for civil penalties and addition of a field audit program to monitor compliance with ODOF's rules and instructions. At the three year review point, the Department will evaluate the need and desirability of extending regulation of forest and agricultural burning statewide.
6. In view of the trial nature of the Plan, the proposed Plan will expire three years following its adoption at which time a replacement Plan of equivalent or greater visibility protection must be adopted.
7. The proposed Visibility Protection Plan has been review by the EPA and found to fulfill the requirements of the Clean Air Act and the EPA December, 1980 regulations.

#### Director's Recommendation

Based on the summation, the Director recommends that the Commission adopt the revised proposed rule (OAR 340-20-047, Section 5.2), Visibility Protection for Class I Areas.



Fred Hansen

#### Attachments:

1. Statement of Need for Rulemaking
2. Hearings Officer's Report
3. Proposed Visibility Protection Rule

#### Appendices:

- A. Field Burning Smoke Management Rule
- B. Oregon Dept. of Forestry Smoke Management Rule
- C. New Source Review Rule

J.E. Core  
229-5380  
AA5561  
October 10, 1986

RULEMAKING STATEMENTS  
for  
ADOPTION OF STATE IMPLEMENTATION PLAN REVISIONS  
for  
VISIBILITY PROTECTION IN CLASS I AREAS

Pursuant to OAR 183.335, these statements provide information on the intended action to amend a rule.

STATEMENT OF NEED

Legal Authority

This Rule amends OAR 340-20-047, Section 5.2 of the State Implementation Plan. It is proposed under the authority of ORS Chapter 468, Section 305 which authorizes the Commission to adopt a general comprehensive plan for air pollution control.

Need for the Rule

The Clean Air Act Amendments require that the State of Oregon adopt a visibility protection plan for Class I areas that will assure reasonable further progress toward the preservation and remedying of visibility impairment where the impairment results from man-made air pollution. Current provisions of the Oregon State Implementation Plan do not adequately protect Oregon's Class I areas. The required SIP revisions include visibility control strategies, program coordination, Best Available Retrofit Technology, integral vistas, interstate protection and other elements.

Principal Documents Relied Upon

- (1) Clean Air Act As Amended, Section 169(a)(1) (PL 95-95)
- (2) Visibility Protection for Federal Class I areas (40CFR51), December 2, 1980
- (3) Visibility in Oregon's Wilderness and National Park Lands, Department of Environmental Quality, September, 1985.
- (4) Cost/Benefit Analysis of Impact Reduction Alternatives for Prescribed Burning in Western Oregon, Final Report to the State of Oregon Department of Environmental Quality by Engineering Science, April, 1986.

### Health Benefits

Reductions in prescribed burning emissions and subsequent improvements in air quality resulting from partial restrictions on burning were estimated to result in a \$1.07 million annual health benefit. Estimates were based on recent air quality-medical cost studies sponsored by the Environmental Protection Agency.

### Avoided Costs

An estimated \$234,000 (\$40,900 USDA Forest Service and \$193,500 private land owners) in forest land manager cost savings has been estimated as a result of reduced mop-up and fire holding costs.

### LAND USE CONSISTENCY STATEMENT

The proposed rule appears to affect land use and is consistent with Statewide Planning Goals.

With regard to Goal 6 (air, water and land resource quality), the rule is designed to enhance and preserve air quality in the affected areas and is therefore consistent with the goal.

The proposed rule is consistent with Goal 5, which seeks to protect the natural and scenic resources of the State.

Goal 11 (public facilities and services) is deemed unaffected by the rule.

Public comment on any land use issue involved is welcome and may be submitted in the same fashion as are indicated for testimony in this notice.

It is requested that local, state and federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and Statewide Planning Goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any apparent conflict brought to our attention by local, state or federal authorities.

AS3111

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

TO: Environmental Quality Commission

DATE: September 16, 1986

FROM: John Core, DEQ Hearings Officer  
William Hughes, DOF Hearings Officer

SUBJECT: Report for Hearings Held August 5, 7, 11, 13, and 15, 1986

Proposed Revisions to the State Air Quality Implementation Plan (OAR 340-20-047) to Address Visibility Protection in Class I Areas and Proposed Revisions to the State of Oregon Department of Forestry Smoke Management Plan (OAR 629-43-043).

Summary of Procedure

Joint hearings conducted by the Department of Environmental Quality and the Department of Forestry were held to receive public comment on the proposed Visibility Protection and Smoke Management (SMP) plans. Written and oral testimony was received from 235 persons during five public hearing conducted August 5th (Portland), 7th (Springfield), 11th (Bend), 13th (Medford) and 15th (Newport). John Core, Senior Environmental Analyst, Air Quality Division, Department of Environmental Quality and William Hughes, Department of Forestry presided at all hearings. A total of 198 persons attended the five hearings.

Summary of Testimony

Comment on the proposed rules can be best organized by summarizing the four positions brought out in the testimony; (1) those in support of the proposed rules, (2) those opposed to the rules as too restrictive to the forest land managers; (3) those opposed because the rules are not sufficiently protective of Class I Area visibility or public health and (4) those that held no specific position on the proposed rules but wished to comment on specific elements of the proposed rules. Forty-nine percent of those commenting on the rules supported adoption as proposed, 32 % opposed adoption and 19 % held no specific position on rule adoption. Of those that oppose adoption, 60 % felt that they would place severe restrictions on the forest land managers ability to burn slash and 40 % opposed the rules feeling that did not offer sufficient visibility and/or public health protection. The position of each of these groups is summarized below. A listing of all persons submitting comment is attached. Copies of the written testimony are on file with the Department of Environmental Quality and the Department of Forestry.

#### Summary Testimony in Support Of The Proposed Rules

Those in support of rule adoption include the U.S.D.A. Forest Service, the National Park Service, Bureau of Land Management, the Oregon Seed Council, Oregon Forest Industries Council, Lane Regional Air Pollution Control Authority, Union County Seed Growers and numerous other forest product industry groups and public members. Most of those supporting rule adoption did so with reservation, noting serious concerns on the impact of the rules on the ability of forest land managers to burn slash and sustain forest productivity at an acceptable cost. Although the principal agencies affected by these rules (Forest Service, BLM and Oregon Forest Industries) submitted lengthy testimony outlining concerns and changes they would prefer to see in the rules, they support adoption in view of the 3 year limitation on the Visibility Protection Plan and in the belief that the proposed rules represent the best compromise that could be reached following an extended period of study and negotiation.

#### Summary Testimony In Opposition As Too Restrictive

Those opposed to the proposed rules include numerous forest products industries, small woodland owners and a segment of the public. These groups feel that forest slash burning, as administered under the current Smoke Management Plan, is already too restrictive, too costly to the forest land manager and will result in reduced forest productivity resulting in major losses in forestry jobs. The testimony focuses on the importance of forest prescribed burning to the industry, the lack of alternatives to burning and the cumulative effects of spotted owl protection, limitations on the use of herbicides, protection of riparian zones and smoke management in reducing necessary forestry burning. Concern was expressed that resultant buildup of unburned slash areas could become a hazard for future major wildfires. Many feel that the proposed rules are unnecessary, overly restrictive or unreasonable.

#### Summary Testimony In Opposition As Insufficiently Restrictive

Those opposing the rules as not providing enough protection of Class I Area visibility and/or public health include the Oregon Environmental Council, the American Lung Association, the Oregon Natural Resource Council, Sierra Club of Oregon, Coastal Citizens Against Pesticides, other environmental groups and a segment of the public. Testimony relative to visibility protection centers on (a) extension of the protection period from the summer months to the entire year, (b) protection of all Oregon wilderness lands under the rule (the 22 new wilderness areas designated in the 1984 Oregon Wilderness Bill are not currently Class I Areas), (c) designation of all Class I Areas as "Smoke Sensitive" in the SMP, (d) deletion of the hardwood conversion exemption and (e) changes in the "emergency clause" to tighten definition of terms. Eighteen of the 29 comments in this group were concerned about health effects caused by prescribed forestry burning and/or health effects caused by the burning of forest residues that had been treated with herbicides. Testimony relative to the Department of

Forestry's SMP noted a lack of enforcement provisions in the SMP rule, need to include the Directives in the rule and extension of the SMP throughout the state.

#### Summary Of Other Testimony

Numerous comments were received from the forest products and public sectors regarding specific elements of the proposed rules, but did not indicate overall support or opposition. Many of these comments noted the necessity to continue forest prescribed burning and the importance of the forest products industry to Oregon's economy. Others were concerned with nuisance or health effects related to field and prescribed burning smoke.

#### Summary Of Key Issues

The following summarizes key issues raised in the hearing testimony. Because of the volume of comment received, only the principal issues are summarized here.

##### 1. Cost/Benefit Study

DEQ, during development of the Visibility Protection Plan, commissioned a study of the cost of forest prescribed burning control alternatives and visibility/health benefits likely to result from implementation of the alternatives. Results of the cost/benefit study were a primary focus of comment. Forest land managers felt that the study dramatically underestimated costs to the industry, was significantly flawed in its estimate of visibility benefits and seriously underestimated costs associated with the carryover of unburned acreage to the next year. Opponents to burning, however, feel that the visibility benefits reported are greatly underestimated since the study did not include benefits from reductions in burning related to wildlife habitat, water quality and forest productivity. Benefits to the public living in urban areas outside of the Willamette Valley were also not included in the analysis.

##### 2. Summer Burning Prohibition

Many forest land managers commented that the objectives of the Visibility Protection Plan would be better served through a program to apply smoke management, rather than prohibit burning, during the July 4-Labor Day period. Citing the prohibition as "unnecessarily restrictive", comment was made that such a prohibition seriously affects scheduling flexibility and increases costs while stopping burning in areas (Mt. Hood to Mt. Jefferson) where smoke can be easily kept out of Class I Areas using smoke management methods.

##### 3. Coastal Burning Smoke Management

Comment from forest land managers note concern that restrictions on coastal burning designed to protect Class I Areas are of questionable value as

these lands are 75 miles away. A better technical demonstration of the contribution of coastal burning smoke to Class I Area visibility needs to be made before additional restrictions are placed on coastal burning. The 2-day upper level wind forecasting requirement is likely not possible with any degree of reliability.

#### 4. Health Effect Caused By Forest Prescribed Burning Smoke.

Serious concern was voiced by 18 persons that prescribed burning smoke, especially smoke that is emitted from slash units that had previously been treated with herbicides, is a major public health problem. Testimony was offered that the burning of herbicide-treated units results in exposure of the public to toxic pollutants, including dioxin and herbicide products of combustion. Several demanded a stop to prescribed forest burning, opposing the proposed rules as not protective of public health. Other technical testimony was received that there was no public health problem and that emissions from herbicide-treated units did not represent a health risk.

#### 5. Scope of the Visibility Protection Plan

Objection was expressed that the proposed protection plan does not include the 22 new wilderness areas created by the 1984 Congress and that there was no DEQ commitment to begin the process to redesignate these land to Class I status--thereby including them under the Visibility Protection Plan. Additionally, not all Oregon Class I lands are set aside as "Smoke Sensitive" areas nor does the Plan protect Class I Areas in eastern Oregon (Eagle Cap and Strawberry Mountain Wilderness Areas). Further, the Plan protects visibility during only the summer months rather than year around. Many felt that the "Emergency Clause" provisions of the Plan are vaguely written and that the exemption for hardwood conversion burning should be deleted.

#### 6. Dept. of Forestry Smoke Management Plan Deficiencies

Considerable testimony was offered that there are no enforcement provisions within the SMP rule (only in the Directives) and that the "heart" of the SMP is found in the Directives which are only advisory in nature. Further, since the Directives can be changed by the State Forester with no public input, the entire SMP (Rule and Directives) should be promulgated as an administrative rule. Because of these factors, many felt that the SMP clearly violates ORS 477.515(3)(b) which requires the State Forester to promulgate SMP rules. Others felt that the objectives of the SMP "to maximize the opportunity for forest land burning" are contradictory and objected to the purpose of the SMP ("simply moving smoke around") rather than making emission reductions.

#### 7. Field Burning Provisions of the Visibility Plan

Although a great deal of support for the Willamette Valley field burning provisions of the Plan was offered by the Oregon Seed Council and the public sector, the Council has requested that an "emergency" clause permitting weekend burning during the July 4-Labor Day period be included in the Plan. Under this clause, burning would be permitted in the event that unusual weather conditions have prohibited accomplishment of a stated number of acres by mid-August, paralleling the slash burning "emergency" clause for forestry burning. Others have commented that the agricultural field burning throughout the state should be covered by the Plan to assure visibility protection in Eastern Oregon Class I Areas.

#### 8. Other Issues

Comment has been received that (a) the visibility monitoring program is inadequate to identify coastal prescribed burning smoke impacts within the Cascade wilderness areas; (b) national historical areas (e.g., Jacksonville) and National Monuments (e.g. Oregon Caves) must be protected under the proposed rules; (c) all significant actions in which federal agencies participate must be covered by an Environmental Impact Statement as required under the National Environmental Policy Act (NEPA) and (d) the proposed rules are not consistent with Planning Goals 3 (Preservation of Agricultural Lands), 4 (Conservation of Forest Lands), 5 (Consistency with County Comprehensive Plans) and 9 (Economy of the State).

Attachment  
AS3832

## VISIBILITY PROTECTION AND SHOKE MANAGEMENT PLAN HEARINGS SUMMARY

KEY: RULE POSITION: S=SUPPORTS, O=OPPOSED, N=NO POSITION

HEARING: P=PORTLAND, S=SPRINGFIELD, B=BEND, M=MEDFORD, N=NEWPORT  
H=WRITTEN

NO.	NAME	AFFILIATION	CITY	HEAR- ING
1	JIM SPACE	U.S.D.A.FOREST SERVICE	PORTLAND	P
2	DAVE NELSON	OREGON SEED COUNCIL	SALEM	P
3	JOE JACOBS	OREGON SEED COUNCIL	SALEM	P
4	AMOS FUNRUE	GRASS SEED FARMER	WILLAMETTE VAL.	P
5	HOWARD HOPKINS	WOODLAND OWNER	MILWAUKIE	P
6	JEAN MEDDAUGH	OR ENVIRON COUNC.	PORTLAND	P
7	JOHN McGHENEY	SIMPSON LUMBER	FOREST GROVE	P
8	ALTON CRONK	CONSULTANT	PORTLAND	P
9	ROBERT RIVERS	BLM	PORTLAND	P
10	ROBERT SMITH	PUBLIC	???	P
11	DAVE JESSUP	DR FOREST IND COUNC	SALEM	P
12	ALAN THAYER	CONSULTANT	VANCOUVER, WN	P
13	LOUIS REINOEHL	PUBLIC	PORTLAND	P
14	JEFF MADISON	CHAMPION INT'L	MAPLETON	S
15	DON FISHER	BOHEMIA LUMBER	EUGENE	S
16	BOB KINTIGH	WOODLAND OWNER	SPRINGFIELD	S
17	DON ARKELL	LANE REGIONAL APA	SPRINGFIELD	S
18	L.M. GIUSTINA	WOODLAND OWNER	EUGENE	S
19	PETER SORENSON	PUBLIC	EUGENE	S
20	BILL JOHNSON	PUBLIC (ENUF)	FOSTER	S
21	ROBERT MAGATHON	E. LANE FOREST PROT.	SPRINGFIELD	S
22	LEONARD GONDEK	ROSEBURG RESOURCES	ROSEBURG	S
23	DWIGHT COON	GRASS SEED GROWER	ALBANY	S
24	MAN COHEN	PUBLIC	EUGENE	S
25	RICHARD GOLD	PUBLIC	EUGENE	S
26	EARL BENEDICT	SKODKUM REFOREST.	SPRINGFIELD	S
27	STEPHEN CAFFERATA	WEYERHAUSER	SPRINGFIELD	S
28	SUSANNA DEFAZIO	PUBLIC	WALTON	S
29	NORMA GRIER	NCAP	EUGENE	S
30	JUNE ANN LOCKLEAR	AM. LUNG ASSN.	EUGENE	S
31	WILLIAM McLOUGHLIN	BLM-ROSEBURG	ROSEBURG	S
32	D.J. VAN CISE	PUBLIC	BEND	B
33	JIM BLACK	DESCHUTES FARM BUREAU	BEND	B
34	DON TRYON	DR. NATURAL RES. COUN.	BEND	B
35	MARTIN LUGAS	KLAMATH FOREST PROTEC.	KLAMATH FALLS	B
36	RUSS ANDERSON	CHAMPION INT'L	BEND	B
37	OMER FULS	PUBLIC	BEND	B
38	SUE JOERGER	SO. OR TIMBER ASSN	MEDFORD	M
39	RUSS McKINLEY	MEDFORD C OF C	MEDFORD	M
40	DAVID McNABB	OSU COLL. FORESTRY	CORVALLIS	M
41	STEPHEN HOBBS	OSU COLL. FORESTRY	CORVALLIS	M
42	BRUNO MEYER	ROGUE FOREST PROT.ASSN	MEDFORD	M
43	KATHI JOY	ROSEBURG C OF C	ROSEBURG	M
44	RICK SOHN	LONE ROCK TIMBER	ROSEBURG	M
45	MYRA ERWIN	LEAGUE OF WOMEN VOTERS	MEDFORD	M
46	BILL CARLSON	HUSKY INDUSTRIES	WHITE CITY	M
47	TOM ESPINOSN	PUBLIC	MEDFORD	M

## VISIBILITY PROTECTION AND SMOKE MANAGEMENT PLAN HEARINGS SUMMARY

KEY: RULE POSITION: S=SUPPORTS, O=OPPOSED, N=NO POSITION

HEARING: P=PORTLAND, S=SPRINGFIELD, B=BEND, M=MEDFORD, N=NEWPORT  
W=WRITTEN

NO.	NAME	AFFILIATION	CITY	HEAR- ING
48	CHRISTOPHER BRATT	HEADWATERS, INC	MEDFORD	N
49	DAVID JONES	BLM-MEDFORD	MEDFORD	N
50	HARDY GLASCOCK	WOODLAND OWNER	CORVALLIS	N
51	JANE NEWTON	PUBLIC	PHILOMATH	N
52	JOHN ROLLIN	CHAMPION INT'L	MAPLETON	N
53	WILLIAM TRUAX	BOISE CASCADE	MONMOUTH	N
54	JOHN WASHBURN	TIMES MIRROR TIMBER	TILLAMOOK	N
55	LOCHA PITTS	PUBLIC	BANDON	N
56	LINDA STEWARD	TIMES MIRROR TIMBER	TILLAMOOK	N
57	SHANNON WHITE	TIMES MIRROR TIMBER	TOLEDO	N
58	RANDY HEREFORD	STARKER FORESTS	CORVALLIS	N
59	JOHN WALSTAD	OSU DEPT FORESTRY	CORVALLIS	N
60	LOGAN MORRIS	OSU DEPT FORESTRY	CORVALLIS	N
61	RANDY BECKER	PUBLIC	SEAL ROCK	N
62	FRANK DOST	OSU DEPT AG. CHEM.	CORVALLIS	N
63	BOB CRAIN	DOUGLAS CTY LAND DEPT.	ROSEBURG	N
64	DAVE JESSUP	OR.FOREST IND. COUNCIL	SALEM	N
65	ERIC BUNDY	CONSULTANT FORESTER	NEWPORT	N
66	LEE HILLER	MILLER TIMBER SERV.	NEWPORT	N
67	SUSAN SWIFT	PUBLIC	NEWPORT	N
68	PAUL MERRALL	PUBLIC	TIDEWATER	N
69	CAROL VAN STRUM	PUBLIC	TIDEWATER	N
70	MORRIS BERGHAN	WILLAMETTE INDUSTRIES	ALBANY	N
71	JIM DENISON	TIMES MIRROR TIMBER	TOLEDO	N
72	BUSTER KITTEL	PUBLIC	WALDPORT	N
73	KATHY WILLIAMS	PUBLIC (CCAP)	SEAL ROCK	N
74	DAVE PICKERING	PUBLIC (ONCAP)	LINCOLN CITY	N
75	SCOTT ASHCOM	OR. FARM BUREAU FED.	SALEM	N
76	DENNIS CREEL	HAMPTON TREE FARMS	WILLAMINA	N
77	ANN HARDY	PUBLIC	ROSE LODGE	N
78	MARGIE MORRISON	PUBLIC	ROSE LODGE	N
79	DOROTHY PATTERSON	PUBLIC	OTIS	N
80	DEBBIE PICKERING	PUBLIC	OTIS	N
81	RAY AYERS	REX TIMBER CO.	TOLEDO	N
82	STEPHEN TEDROW	PUBLIC	TIDEWATER	N
83	ROBERT RUBIN	PUBLIC	WALDPORT	N
84	DIANE GEORGE	PUBLIC	OREGON CITY	W
85	JACK & JUDY BOLING	PUBLIC	GRANTS PASS	W
86	CANDICE GUTH	PUBLIC	TOLEDO	W
87	ROBERT LOWERY	WILLAMETTE SEED CO.	ALBANY	W
88	DAN YOUNG	OR. REGION. CHERRY COMM	SALEM	W
89	???	KLAMATH CTY WEED CONTROL	KLAMATH FALLS	W
90	GREG LOBERG	NPI AG.SERVICE CORP.	SALEM	W
91	DANIEL GOLTZ	BURRILL LUMBER CO.	MEDFORD	W
92	THOMAS HAY	LONGVIEW FIBRE CO.	LONGVIEW, WN.	W
93	DON CLITHERO	ROSEBURG C OF C	ROSEBURG	W
94	CHARLES CHANDLER	CHANDLER HEREFORDS, INC	BAKER	W

## VISIBILITY PROTECTION AND SMOKE MANAGEMENT PLAN HEARINGS SUMMARY

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NO.	NAME	AFFILIATION	CITY	HEAR- ING
95	JIM GEISINGER	WEST.FOREST IND. ASSN.	PORTLAND	W
96	STEVEN AKEHURST	ROSBORO LUMBER	SPRINGFIELD	W
97	MIKE QUIGLEY	PUBLIC	SUNRIVER	W
98	JOHN PERRY	INT'L PAPER CO.	VENETA	W
99	WILLIAM BRIGGLE	NATIONAL PARK SERVICE	SEATTLE, WN	W
100	JOHN HASSINGER	UNION CTY SEED GROWERS	???	W
101	BILL WEATHERFORD	UNION CTY SEED GROWERS	ELGIN	W
102	TONY PUCKETT	UNION CTY SEED GROWERS	???	W
103	MIKE BULGOW	UNION CTY SEED GROWERS	LA GRANDE	W
104	LUTHER SUTTE	UNION CTY SEED GROWERS	COVE	W
105	CRAIG NEOLATO	UNION CTY SEED GROWERS	???	W
106	RANDY GLEN	UNION CTY SEED GROWERS	???	W
107	EDWIN HODFUAGLER	UNION CTY SEED GROWERS	???	W
108	CARL BERKLEL	UNION CTY SEED GROWERS	???	W
109	SYLVAN RASMUSSEN	UNION CTY SEED GROWERS	???	W
110	RIHEL RASMUSMEN	UNION CTY SEED GROWERS	???	W
111	JOHN RAUM	UNION CTY SEED GROWERS	???	W
112	GEORGE REYES JR.	UNION CTY SEED GROWERS	???	W
113	GEORGE REYES	UNION CTY SEED GROWERS	???	W
114	DALE EISINGER	UNION CTY SEED GROWERS	???	W
115	KATHY BAYLINK	UNION CTY SEED GROWERS	SUMMERVILLE	W
116	WILLIAM HOWELL	UNION CTY SEED GROWERS	???	W
117	L.R. STARR	UNION CTY SEED GROWERS	???	W
118	STEVE MARKER	UNION CTY SEED GROWERS	???	W
119	RON WISTENIKA	UNION CTY SEED GROWERS	???	W
120	NAME ILLEGIBLE	UNION CTY SEED GROWERS	???	W
121	GARY HOBERG	PUBLIC	FLORENCE	W
122	RON GRAY	INTERNATIONAL PAPER	GARDINER	W
123	LIZ VAN LEUWEN	STATE REPRESENTATIVE	SALEM	W
124	HOWARD HOPKINS	LONGVIEW FIBRE CO.	VERNONIA	W
125	KEVIN McMULLEN	PUBLIC	FLORENCE	W
126	SAMUEL DONOVAN	PUBLIC	???	W
127	SHASTA McMULLEN	PUBLIC	FLORENCE	W
128	WANDA HOBERG	PUBLIC	FLORENCE	W
129	HODE JONES	WILBUR-ELLIS CO.	PORTLAND	W
130	CAROL CURRY	PUBLIC	EUGENE	W
131	BRUCE ALBER	WILBUR-ELLIS	PORTLAND	W
132	GENEVIEVE SAGE	AMERICAN LUNG ASSN.	MEDFORD	W
133	MARK SWISHER	ROGUE VALLEY AUDUBON SOC.	TALENT	W
134	LEVERETTE CURTIS	PUBLIC	SPRINGFIELD	W
135	DAN SANDS	VALLEY CHEMICAL CO.	LAGRANDE	W
136	CURT HOWELL	MT. EMILY SEED, INC.	IMBLER	W
137	JAMES BUTLER	STAYTON CANNING CO.	STAYTON	W
138	THOM NELSON	HOOD RIVER GROWERS	ODELL	W
139	BRUND MEYER	MEDFORD CORP.	MEDFORD	W
140	RONALD YOCKIM	DR JOHNSON LUMBER	RIDDLE	W
141	KURT MULLER	FORESTER	???	W

## VISIBILITY PROTECTION AND SMOKE MANAGEMENT PLAN HEARINGS SUMMARY

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NO.	NAME	AFFILIATION	CITY	HEAR- ING
142	RON WEINHOLD	SUPERIOR TIMBER CO.	GLENDALE	W
143	EDWARD WALL	GREGORY FOREST PROD.	GLENDALE	W
144	JOHN&PHYLLIS STEWART	PUBLIC	SALEM	W
145	MR&MRS Wm SPARHIM	PUBLIC	BROWNSVILLE	W
146	LESLIE LEWIS	PUBLIC	???	W
147	ROSE DICKERSON	PUBLIC	SHEDD	W
148	JACK KALENA	FARMER	???	W
149	SAMUEL DONAVAN	PUBLIC	GRANTS PASS	W
150	ELMA JEAN CUTLER	PUBLIC	SWEET HOME	W
151	SHIRLEY DAVIS	PUBLIC	LEBANON	W
152	RICHARD MALPASS	OREGON GOLF COURSE ASSN	VANCOUVER, WN	W
153	DAVID SCHUBEL	HOLIDAY TREE FARM	CORVALLIS	W
154	MICHELLE BOUVIA	PUBLIC	ALBANY	W
155	DON HENDERSON	PUBLIC	DONALD	W
156	C. BALDWIN	PUBLIC	STAYTON	W
157	CAROL NANSSEN	LANE CTY. COW BELLES	EUGENE	W
158	NEVEN&LAFONA JENSEN	JENSEN'S POLLED HEREFORDS	EUGENE	W
159	JERRY BOLLEN	WEYERHAUSER	SPRINGFIELD	W
160	VIRGINIA DAGG	LAGRANDE C OF C	LAGRANDE	W
161	JOHN NORTON	SHELL OIL CO.	ATHENA	W
162	LYNNE BURNHARDT	PUBLIC	DEXTER	W
163	STEVE GAPP	WESTERN FARM SERVICES	TANGENT	W
164	TOM THOMPSON	AGRICULTURAL CONSULTANT	PENDLETON	W
165	DAVID KEISER	KOGAP MANUFACTURING	MEDFORD	W
166	J. ALLAN BARKER	PUBLIC	STATE OF VA.	W
167	JAMES HILL JR.	PUBLIC	ARCH CAPE	W
168	DON BURLINGHAM	WOODBURN FERTILIZER	WOODBURN	W
169	CLIFF PARKER	LANDSCAPE SPRAY SERV.	AMITY	W
170	DASHIL HUMPHREY	PUBLIC	AUMSVILLE	W
171	DAVID DIETZ	OREGON.FOR FOOD & SHELTER	SALEM	W
172	ANN KLOKA	SIERRA CLUB	PORTLAND	W
173	DELBERT GLASER	GRASS SEED GROWER	???	W
174	STEVE MASTERS	BLUE MT. SEED, INC.	IMBLER	W
175	STEPHEN CAFFERATA	WEST.LANE FOREST PROT.ASSN	VENETA	W
176	ADELE NEWTON	LEAGUE OF WOMEN VOTERS	SALEM	W
177	RUSSELL McKINLEY	BOISE CASCADE	MEDFORD	W
178	BERT HOCKETT	SWANSON BROS. LUMBER CO.	NOTI	W
179	GENE&ROSEALE CLEMENS	PUBLIC	PORTLAND	W
180	HELEN SCHOTT	PUBLIC	McMINNVILLE	W
181	JAMES AGEE	NATIONAL PARK SERVICE	SEATTLE, WN	W
182	JEANNE&SCOTT FITTERER	PUBLIC	LAGRANDE	W
183	WALT SHEARARD	PUBLIC	REEDSPORT	W
184	JOHN CHARLES	OREGON ENVIRON COUNCIL	PORTLAND	W
185	DARLENE LIND	LIND ENTERPRISES	SHERWOOD	W
186	JODY PUPER	PUBLIC	JUNCTION CITY	W
187	KAY KING	PUBLIC	FLORENCE	W
188	JOHN THOMPSON	PUBLIC	???	W

## VISIBILITY PROTECTION AND SMOKE MANAGEMENT PLAN HEARINGS SUMMARY

KEY: RULE POSITION: S=SUPPORTS, O=OPPOSED, N=NO POSITION

HEARING: P=PORTLAND, S=SPRINGFIELD, B=BEND, M=MEDFORD, N=NEWPORT, W=WR

NO.	NAME	AFFILIATION	CITY	HEAR- ING
189	GERALD GRUBER	INDUST. FOREST ASSN	EUGENE	W
190	CONNIE YEAKLEY	AMERICAN LUNG ASSN.	COVE	W
191	RICHARD BEEBY	CHAMPION INTERNATIONAL	ROSEBURG	W
192	ANNA BECHTEL	PUBLIC	???	W
193	PRISCILLA COE	PUBLIC	LAGRANDE	W
194	HAL ROSS	ODIN CORP	NEWPORT	W
195	DEAN PIHLSTROM	DEAN PIHLSTROM, INC.	NEWPORT	W
196	WILLIAM POWELL	UPPER-ROGUE INDEPENDENT	EAGLE POINT	W
197	DALE LEDYARD	INTERNATIONAL PAPER	GARDINER	W
198	ROB FRERES	FRERES LUMBER CO.	LYONS	W
199	CLIFFORD LANSDON JR	SUPERIOR LUMBER CO.	BLENDALE	W
200	CHLOE LARVIK	GRANDE RONDE RES. COUNCIL	LAGRANDE	W
201	WILSON BUMP	GRASS SEED GROWER	MONMOUTH	W
202	SANDRA DIEDRICH	COOS-CURRY COG	COOS BAY	W
203	JAMES PIERCE	PUBLIC	EUGENE	W
204	MRS TOM LAFOLLETT	PUBLIC	CANBY	W
205	KAREN VALLAD	OREGON WOMEN FOR TIMBER	SWEET HOME	W
206	CAROL CURRY	PUBLIC	EUGENE	W
207	WANDA HOBERG	PUBLIC	FLORENCE	W
208	JUANITA DAVIS	PUBLIC	CORVALLIS	W
209	ROBERT WATSON	SPAULDING & SONS	GRANTS PASS	W
210	NOLA MILLHOUSER	POLK SOIL & WATER CONSV.	DALLAS	W
211	PAUL RUDD	UNION CTY SEED GROWERS	???	W
212	SHIRLEY DAVIS	PUBLIC	LEBANON	W
213	CINDY PAYNE	PUBLIC	MAPLETON	W
214	ELVAN HUNTINGTON	PUBLIC	MAPLETON	W
215	DAN BORLAND	PUBLIC	VENETA	W
216	DEL PHELPS	PUBLIC	FLORENCE	W
217	ANNA MANISON	PUBLIC	MAPLETON	W
218	DIANE MILLER	PUBLIC	CORVALLIS	W
219	GILBERT WEATHERSPOON	UNION CTY SEED GROWERS	???	W
220	GEORGE ROYER	PUBLIC	IMBLER	W
221	DIANE MILLER	PUBLIC	CORVALLIS	W
222	GRANT&HELEN HENDERSON	UNION CTY SEED GROWERS	???	W
223	DON STARR	UNION CTY SEED GROWERS	???	W
224	RALPH RHODES	SKOOKUM REFORESTATION	SPRINGFILED	W
225	JUDY ROTONDI	PUBLIC	BEND	W
226	NANCY CHASE	PUBLIC	OTIS	W
227	HAROLD CHRISTIANSEN	PUBLIC	OTIS	W
228	HAL ROSS	ODIN CORP.	ELGIN	W
229	BERNARD HUG JR.	FARMER	ELGIN	W
230	H.WAYNE BOLLENBAUGH	PUBLIC	???	W
231	DELBERT&LOUISE COX	PUBLIC	ALBANY	W
232	MARTI KIMLER	PUBLIC	BEND	W
233	ALAN TRACY	SIERRA CLUB	BEND	W
234	TINA McGEARY	LEAGUE WOMEN VOTERS	BEND	W
235	EDWARD STYSKEL	PUBLIC	BEND	W

VISIBILITY PROTECTION PLAN FOR CLASS I AREAS

(OAR 340-20-047, Section 5.2)

	Page
5.2 Visibility Protection for Class I Areas	2
Mandatory Class I Areas	2
Areas Redesignated to Class I	3
5.2.1 Definitions	3
5.2.2 Introduction	5
5.2.2.1 Assessment of Visibility Impairment	6
5.2.3 Visibility Monitoring	7
5.2.4 Procedures For Review, Coordination and Consultation	8
5.2.4.1 Annual Meetings	8
5.2.4.2 Strategy and Reasonable Further Progress Review	9
5.2.4.3 Other Meetings	9
5.2.5 Control Strategies	9
5.2.5.1 Strategy Elements as Related To The National Goal	10
5.2.5.1 (A) Short-Term Strategy for Visibility Protection	10
-Strategy Overview	10
-Willamette Valley Field Burning	10
Exemptions to Restrictions	11
-Prescribed Burning	11
Exemptions to Prohibition	12
Prescribed Burning Emergency Clauses	13
5.2.5.1 (B) Long-Term Strategy for Visibility Protection	13
-Strategy Overview	14
-Field Burning Element	15
-Prescribed Burning Element	15
5.2.5.2 Protection of Integral Vistas	16
5.2.5.3 Best Available Retrofit Technology	17
5.2.5.4 New Source Review & Prevention	17
of Significant Deterioration	
5.2.5.5 Maintenance of Control Equipment	17
5.2.5.6 Interstate Visibility Protection	17
5.2.5.6 (A) Field Burning Element	18
5.2.5.6 (B) Prescribed Burning Element	18
5.2.5.7 Emission Reductions Due To On-Going	18
Control Programs	
Tables	
1. Lands Protected Under The Plan	3
2. Field Burning Long-Term Strategy	20
3. Prescribed Burning Long-Term Strategy	22
Appendices	
A. Field Burning Smoke Management Plan	
B. Prescribed Burning Smoke Management Plan	
C. New Source Review Rule	

This section of the Oregon State Implementation Plan describes the Department of Environmental Quality's Visibility Protection Plan for the states Class I wilderness and national park lands. Referred to herein as the Plan, this document describes Oregon's commitment to visibility monitoring, control strategies to remedy existing impairment and ensure future visibility protection, periodic plan review, coordination and consultation. The Plan has been developed in consultation with the Federal Land Managers, the Oregon Visibility Advisory Committee, the Oregon Department of Forestry and the Oregon Seed Council. The Plan represents an initial step toward remedying existing impairment and protecting future visibility conditions within Oregon's Class I areas.

This Plan provides for the protection of the mandatory federal Class I areas promulgated by the U.S. Environmental Protection Agency (EPA) on November 30, 1979 and incorporated in OAR 340-31-120. The Plan has been developed in response to the requirements of Section 169 (A)(a)(4) of the Clean Air Act promulgated by the US EPA on December 2, 1980 (45 FR 80089).

The intent of the Oregon Visibility Protection Plan is to insure significant reasonable further progress toward achievement of the National Visibility Goal of "the prevention of any future and the remedying of any existing impairment in Mandatory Federal Class I areas which impairment results from manmade air pollution". The Plan is directed at the protection of visibility within Oregon's Class I Areas and (b) the mitigation of visibility impairment within the Mt. Hood and central Oregon Cascade wilderness areas through short and long-term control strategies for forest prescribed burning and Willamette Valley agricultural field burning. Visibility protection for all of Oregon's Mandatory Federal Class I areas is administered under the provisions of a diversity of regulations including the Prevention of Significant Deterioration, New Source Review rules and the U.S.D.A. Forest Planning process.

The objective of this Plan is to assure compliance with the requirements of the Clean Air Act and US EPA Phase I program requirements. These requirements specify the adoption of strategies directed toward the control of existing stationary sources impairing visibility, the evaluation of visibility impacts of new stationary sources, the control of other existing sources not meeting the more stringent source size requirements for existing stationary facilities and, finally, the adoption of control strategies designed to achieve reasonable progress toward meeting the National Visibility Goal. Future phases of the EPA regulations will extend the program by addressing more complex problems such as regional haze. The Department believes that the Oregon Visibility Protection Plan not only meets the requirements of the EPA Phase I requirements but will make substantial progress in reducing impairment caused by regional haze.

#### Mandatory Class I Federal Areas

Wilderness and National Park Lands included within the scope of the Visibility Protection Plan are listed in Table I, below. These lands

have been designated as Federal Mandatory Class I Areas under the Clean Air Act, Public Law 95-95. Visibility protection for the mandatory federal Class I areas, defined in Section 5.2.1 below, is required by the Clean Air Act Amendments of 1977.

Table I  
Wilderness and National Park Lands  
Protected Under The Visibility Protection Plan

Class I Area	Acreage	Public Law Establishing	Federal Land Manager
Crater Lake	160,290	57-121	USDI-NPS(1)
Diamond Peak Wild.	36,637	88-577	USDA-FS (2)
Eagle Cap Wild.	293,476	88-577	USDA-FS
Gearhart Mtn. Wild	18,709	88-577	USDA-FS
Hells Canyon Wild.	108,900	94-199	USDA-FS
Mountain Lakes Wild.	23,071	88-577	USDA-FS
Mt. Hood Wild.	14,150	88-577	USDA-FS
Mt. Jefferson Wild.	100,208	90-548	USDA-FS
Mt. Washington Wild.	46,116	88-577	USDA-FS
Strawberry Mtn. Wild.	33,003	88-577	USDA-FS
Three Sisters Wild.	199,902	88-577	USDA-FS
Kalmiopsis Wild.	76,900	88-577	USDA-FS

Notes: (1) U. S. Department of Interior, National Park Service  
(2) U. S. Department of Agriculture, Forest Service

#### Areas Redesignated to Class I

Lands redesignated under OAR 340-31-120 through 130 to Class I status will be included in future Plan revisions if the Department, in consultation with the Land Manager, determines that visibility within these lands is important to the visitor's experience. Upon completion of this determination, the Class I area will be included within the Plan. Revision of the Restrictions on Area Classifications Section of the Standard for Air Purity and Quality Rule ( OAR 340-31-120 (1)), will also be made to assure that the Rule incorporates all Class I areas.

#### 5.2.1 Definitions

Definitions applicable to this section of the SIP are listed below:

"Best Available Technology (BAT)" means an emission reduction technique which will provide the maximum degree of reduction in air contaminant emissions, taking into account energy, environmental and economic impacts, compatibility with other Federal Land Manager practices and other costs, as determined on a case-by-case basis. BAT technologies applicable to prescribed burning include, but are not limited to, accelerated mopup, rapid ignition techniques, burning during optimum emission-reduction fuel moisture conditions, utilization of residues in lieu of burning and the reduction of emissions in lieu of broadcast or pile burning.

"Best Available Retrofit Technology" means an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility. The emission limitation must be established on a case-by-case basis, taking into consideration the technology available, the cost of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

"Class I Areas" are those mandatory Federal Class I areas and Class I areas designated by the Department within which visibility has been identified as an important resource. Oregon's 12 Class I areas are those listed under OAR 340-31-120.

"Integral Vistas" means a view perceived from within the mandatory Class I Federal area of a specific landmark or panorama located outside the boundary of the mandatory Class I area.

"July 4 Weekend to Labor Day" means the period extending from the weekend closest to, or including, July 4th through Labor Day, inclusive. If July 4th falls on a Wednesday, the visibility protection period shall include the 3 day weekend following July 4th to Labor Day, inclusive.

"Meteorological Impairment" occurs during time periods in which hydrometeors (e.g., fog, rain, clouds, snow or sleet) impair visibility within a Class I areas.

"Manmade Air Pollution" is pollution which results directly or indirectly from human activities.

"Natural Conditions" includes naturally occurring phenomena that reduce visibility as measured in terms of visual range, contrast or coloration. These phenomenon include fog, clouds, wind blown dust, rain, sand, naturally ignited wildfires and natural aerosols.

"Prescribed Burning" means the controlled application of fire to wild land fuels in either their natural or modified state, under such conditions of weather, fuel and soil moisture, as allows the fire to be confined to a predetermined area while producing the intensity of heat and rate of fire spread required to meet planned objectives including silviculture, wildlife habitat management, grazing and fire hazard reduction.

"Significant Impairment" occurs when, in the judgement of the Department, visibility impairment interferes with the management, protection, preservation or enjoyment of a visitor's visual experience within a Class I area. The determination must be made on a case-by-case basis considering the recommendatins of the Federal Land Manager, the geographic extent, intensity, duration, frequency and time of visibility impairment. These factors will be considered with respect to visitor use of the Class I areas and the frequency and the occurence of natural conditions that reduce visibility.

"Substantial Impairment" means the percent of daylight hours, during the period of July 4 weekend to Labor Day, which equals or exceeds  $0.8 \times 10^{-4}$  per meter, hourly average light scattering coefficient excluding periods of natural visibility impairment measured at an ambient air monitoring site representative of a Class I area. Evaluation of the frequency and cause of impairment will be made annually in consultation with the Federal Land Managers.

"Reasonably Attributable" means attributable by visual observation or any other technique the Department deems appropriate.

"Visibility Advisory Committee" means a group of Federal Land Managers, forestry, environmental, tourism and public-at-large representatives, appointed by the Director of the Department.

"Visibility Impairment" means any humanly perceptible change in visibility (visual range, contrast or coloration) from that which would have existed under natural conditions.

"Visibility In Any Mandatory Class I Federal Area" includes any integral vistas associated with that area.

#### 5.2.2 Introduction

Legislation to protect our nation's wilderness heritage began with the National Park Service Organic Act of 1916 and the Wilderness Act of 1964. These Acts set aside areas to be preserved in their natural state, unimpaired by human activities. The protection of the pristine nature of these areas was again addressed in the Clean Air Act Amendments of 1977. The Amendments recognized the importance of "preserving, protecting and enhancing" the air quality, within the nation's Class I areas. In Oregon, eleven of the state's wilderness areas and Crater Lake National Park were designated by Congress as mandatory federal Class I areas. An additional twenty three areas were designated as wilderness lands under The Oregon Wilderness Act of 1984, although these lands have not been designated as Class I areas. The importance and value of these lands to Oregon lie not only in the intrinsic value of their beauty but also in their importance to tourism in Oregon. These areas are also a valuable recreational resource for Oregon residents.

The Clean Air Act Amendments recognize the importance of air quality related values, including visibility, and set forth as a national goal "The prevention of any future and the remedying of any existing impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution". The Amendments instructed EPA to promulgate regulations to assure reasonable further progress toward attainment of the national visibility goal.

The principal effect of the EPA visibility regulations is to require states to (a) revise their State Implementation Plans (SIPs) to establish long-range goals, (b) commit to a planning process to protect visibility and (c) to implement procedures requiring visibility protection for mandatory Class I Federal areas. This

revision of the SIP describes the visibility protection plan that Oregon will follow to comply with the requirements of Section 169 A of the Clean Air Act.

#### 5.2.2.1 Assessment of Visibility Impairment

An assessment of visibility impairment in Oregon's Class I areas was reported by the Department in a document entitled "Visibility in Oregon's Wilderness and National Park Lands". This report, published in September 1985 by the Department, presents results from visibility monitoring conducted during the summers of 1982-1984. A overview of the visibility monitoring program may be found in Section 5.2.3 of this document. Specifics of the monitoring methods used, site locations and quality assurance program may be found in the above report.

Visibility is frequently impaired by uniform haze and, to a lesser extent, ground based layered haze within several of Oregon's Class I areas for which monitoring data is available. Uniform haze causes visibility impairment over wide geographical areas but, unlike regional haze, can be attributed to a known source. Many of the uniform haze episodes appear to be associated with impacts from dispersed agricultural field burning and forest prescribed burning activity. Plume blight impairment associated with well defined plumes is uncommon.

During the 1982-84 period, the Department estimated that about one-third of the hours of impairment were related to discrete plume impacts from burning activity while two-thirds were associated with regional haze events. Regional haze is associated with visibility impairment over wide geographical areas. It is caused by a large number of widely dispersed urban plume sources, areas sources (including vegetative burning), industrial point sources and natural sources. Observer notes, photographic evidence and the aerosol chemistry within the Mt. Hood and Central Cascade Wilderness Areas (Mt. Jefferson, Mt. Washington and Three Sisters Wilderness Areas) all indicate that urban haze, transportation emissions and industrial point sources are not significant sources of the fine particles that cause visibility impairment.

Perceptible manmade impairment within the Mt. Hood and Central Cascade Wildernesses and Crater Lake National Park has been estimated to occur 17%, 33% and 4% of the daylight hours during the summer months of highest visitor use. Moderate impairment, i.e. manmade impairment which occurs during the poorest 20% of the summer days, occurs 7%, 16% and 1% of the daylight hours at these locations. Nearly one-third of the moderate impairment periods occur on weekend days. About 40% of the wilderness areas visitation occurs on Saturdays and Sundays, while 79% occurs during the months of July and August. Nearly 96% of the visitation occurs during the mid-June to mid-September period.

The sources contributing to non-meteorological visibility impairment have been identified by receptor modeling and aerosol chemistry studies. Contributing sources include secondary aerosols, soil dust,

agricultural field burning, wildfires and forest prescribed burning smoke. Grass field and forest prescribed burning are the principal contributing sources of manmade pollution. During the monitoring period, an estimated average of 48% of the fine particle mass at the Mt. Hood site was associated with prescribed burning while 24% was from field burning. Within the central Cascades, prescribed burning contributed an estimated 41% of the mass while field burning contributed 16% of the mass. Trajectory modeling analysis suggests that up to one-fourth of the impact-hours may be related to State of Washington prescribed burning smoke.

Monitoring studies conducted within the Strawberry Mountain, Kalmiopsis, Diamond Peak and Eagle Cap Wilderness Areas have not demonstrated a conclusive visibility impairment problem. Monitoring has not been conducted within the Gearhart Mountains, Hells Canyon or Mountain Lakes Wilderness areas since these areas have much lower visitation.

Based on the 1982-1984 studies referenced above, the Department finds that (A) significant impairment exists within the Mt. Hood, Mt. Jefferson, Mt. Washington and Three Sisters Wilderness Areas; (B) control strategies to remedy existing visibility impairment are required to correct existing impairment within these four wilderness areas; (C) the control strategy should be directed toward mitigation of impacts from Willamette Valley field burning and forest prescribed burning during the summer periods of peak visitation; (D) control strategies to ensure future protection of all Class I areas are required and (E) an interstate visibility protection program coordinated with the State of Washington is essential to assure the protection of visibility within Oregon's Class I areas.

### 5.2.3 Visibility Monitoring

The Oregon Department of Environmental Quality has established and will continue to operate a monitoring system to identify the degree, if any, of visibility impairment in Class I areas and the sources of the pollutants causing the impairment. To the extent practicable, the visibility monitoring program will extend statewide with the intent of documenting and evaluating visibility within Class I areas of the State of Oregon. The monitoring system will be operated in cooperation with the National Park Service and the USDA Forest Service.

A visibility monitoring strategy is essential to the evaluation of visibility impairment trends, as a means of differentiating manmade and natural visibility reduction, to assess the effectiveness of visibility control strategy programs and to identify the major contributing sources. To meet these objectives, the monitoring program will document visibility within Class I areas on a long-term basis. In addition, the monitoring plan will strive to meet the needs of, and be a cooperative effort with, the Federal Land Manager.

Oregon's visibility monitoring plan has been developed by the Department of Environmental Quality, in consultation with the National Park Service, the USDA Forest Service and other agencies. Objective of the Department's visibility monitoring plan includes measurements intended to document visibility within Class I areas, short-term fine particle concentration variability, atmospheric relative humidity and pollutant transport. Fine particle samplers are included to chemically characterize the haze-producing particles. The monitoring network will be operated annually from July through September, the period of the heaviest Class I area visitation. A major effort will be made each year to begin the monitoring program as soon as spring weather and snow pack conditions permit and to continue the program as late into the fall as weather permit. Measurements to be included in the program are:

- \* Visual observations of impairment phenomena, meteorological conditions and visual range.
- \* A standardized photographic and standard visual range monitoring program to record actual visibility and target contrast.
- \* An integrated nephelometer network to measure extinction due to light scattering caused by fine particles.
- \* A meteorological network consisting of relative humidity , wind speed and wind direction.
- \* A fine particle sampling network to identify source impacts on visibility and fine particle mass using receptor models.
- \* Other monitoring and analytical methods that may be appropriate to achieve the objective of the monitoring plan.

#### 5.2.4 Procedures for Review, Coordination and Consultation

The Department has made and will continue a commitment to a strong State-Federal Land Manager (Land Manager) coordination program. This section of the Plan explains procedures for maintaining coordination between involved agencies for rulemaking, New Source Review, periodic program reviews and revision of the SIP. For purposes of these reviews, the Department will maintain a mailing list of interested parties which will be advised of the following meetings:

##### 5.2.4.1 Annual Meetings

All state and federal agencies involved in the Plan will be invited to an annual meeting, to be held no later than April of each year, to review the Visibility Protection Plan. The meeting will be open to public participation and input with meeting notification sent to members of the Visibility Advisory Committee, the news media and interested persons included on a Department mailing list. Issues to be addressed will include (a) assessment of the effectiveness of the control strategies; (b) a review of the monitoring program design; (c) progress toward achievement of long-term control strategy plan

elements (d) discussion of reasonable progress toward achievement of the national visibility goal and (e) review of reports describing findings of the State Forester and the Director of the Department of Environmental Quality relative to enactment of the prescribed burning restriction emergency clause described in Section 5.2.5.1 (A) of this Plan. A report summarizing the proceedings of these meeting will be distributed to the Land Managers, EPA, the Visibility Advisory Committee and other interested parties. These reports will form an important element of the periodic Plan review process.

#### 5.2.4.2 Strategy and Reasonable Further Progress Review

On third year intervals beginning in 1989, the Department will conduct a formal meeting to review the Plan, providing an opportunity for the Land Managers to consult with the Department on all matters involving the development of the Visibility Protection Plan. The meeting will provide an opportunity for affected Land Managers, the Visibility Advisory Committee, the Oregon Seed Council and the public to present their (a) assessment of visibility impairment; (b) recommendations regarding the development of long-term control strategies; (c) assessment and consultation of visibility impairment trends as related to the Reasonable Further Progress provisions of the Plan; (d) periodic review of the monitoring program and findings developed therefrom; (e) additional measures which may be needed to assure reasonable further progress; (f) review of proposed integral vistas and/or new wilderness lands to be included within the Plan; (g) assessment of proposed and/or actual impacts from major new or modified point sources and (h) a review of progress made in decreasing impacts from field and prescribed burning including rescheduling, utilization and emission reduction programs.

All available monitoring and emission data applicable to Class I visibility impact assessment will be summarized and provided for use during the review of the Plan. A report summarizing the available data and proceedings of these meeting will be distributed to the Land Managers, EPA and other interested parties.

#### 5.2.4.3 Other Meetings

Meetings may be called by any interested party at any time to discuss the Plan with the Department .

#### 5.2.5 Control Strategies

The protection of visibility in Oregon's Class I areas requires both correction of existing visibility impairment within the Mt. Hood and central Cascade Wilderness areas and protection of all Class I areas from future impairment. The Oregon Visibility Protection Plan incorporates strategies to make reasonable progress toward remedying impairment caused by Willamette Valley agricultural field burning and forest prescribed burning. The Plan also includes provisions for the protection of all Class I areas from future impairment through the visibility impacts assessment requirements of the New Source Review rule. This section of the SIP describes the major elements of the Plan.

### 5.2.5.1 Strategy Elements as Related to the National Goal

The principal elements of the control strategy as they relate to the national visibility goal are described in this section. These elements of the Plan include (a) short-term goals to be accomplished over a 5 year period to mitigate existing visibility impairment; (b) long-range goals to reduce fine particle emissions from agricultural field burning and forest prescribed burning and (c) on-going visibility protection afforded through the New Source Review permitting process and emission reductions achieved as a result of in-place control strategies. Each of these Plan elements is discussed below:

#### (A) Short-Term Strategies For Visibility Protection

##### Strategy Overview

The short-term control strategies are directed at remedying visibility impairment during the peak summer visitation period (July 4 weekend through Labor Day, inclusive) caused by distinct and dispersed plume impacts, from agricultural field burning and forest prescribed burning. The strategy will also reduce regional haze impairment caused by these sources and assure the prevention of impairment associated with emission growth and new source construction through elements A-H of the long-term strategy.

##### Willamette Valley Field Burning

Short term strategies for reducing impairment caused by field burning are listed in Table II and subject to the emergency provisions described below. The strategies are based mainly on smoke management; however, strategies 1 and 4 listed on Table IIa will result in some emissions reductions. The minimum cumulative effect of these strategies is expected to be a one-third reduction in the occurrence of moderate and severe visibility impairment caused by field burning within the first three year review. Given that the monitoring data indicates that approximately 20% of the Central Cascade substantial impairment is related to field burning, a 7 % improvement in visibility (minimum) should be achieved by this strategy element. Actual benefits will likely be greater than estimated due to reductions in regional haze.

Since all Willamette Valley field burning occurs during July through October, these short term strategies are automatically directed at remedying impairment during the summer peak visitation period. Further attention to weekend visitation periods is provided by strategy 5 which is expected to eliminate field burning related visibility impairment on most visibility important weekend days.

Provision has been made to incorporate these short term strategies into the field burning smoke management program. Implementation of strategy elements 2 and 4 , Table IIa, was begun during the 1985

field burning season when element 4 was successfully tried on a large scale. The remaining elements will be implemented initially during the 1986 burning season, and it is anticipated that most of the benefits of the short-term strategies will be realized by the first three year review.

Specifics of the Field Burning Smoke Management Plan are included in Appendix A.

#### Field Burning Restriction Emergency Clause.

This section provides for the modification of field burning restrictions in the event of a finding by the Director of the Department of Environmental Quality that undue, adverse economic impacts on the grass seed industry may be likely because of unusual weather or burning conditions. The finding will be based on a review, by August 10th and periodically thereafter, of burning accomplished to date to determine if burning restrictions should be modified or suspended. A report, describing the findings of the Director of the Department of Environmental Quality shall be prepared for review during the Annual meetings (Section 5.2.4.1) in the event of enactment of the Emergency Clause.

#### Prescribed Burning

The prescribed burning short-term strategy includes a reduction in substantial visibility impairment within the Mt. Hood, Mt. Jefferson, Mt. Washington and Three Sisters Wilderness Areas by restricting summer prescribed burning and setting aside these Class I lands as protected areas under the Smoke Management Plan. The estimated goal of the short-term strategy is a 60-90 % reduction in substantial visibility impairment from the 1982 to 1984 monitoring baseline. This program should not result in additional impacts in other designated areas at any time during the year, nor should it result in additional summertime impairment within other Class I areas within Oregon or Washington. The prescribed burning short-term strategy will remain in effect for three years following adoption by the Department and applies to Western Oregon burning (Lane, Linn, Marion, Clackamas, Multnomah, Hood River, Columbia, Clatsop, Tillamook, Yamhill, Polk, Benton, Lincoln and Washington counties). Following expiration of the following short-term strategy, a replacement program of comparable or greater visibility protection will be adopted by the Department.

The following strategy elements apply to non-meteorologically impaired periods within the Mt. Hood, Mt. Jefferson, Mt. Washington and Three Sisters Wilderness Areas during the July 4 weekend-Labor Day period. A general prohibition on prescribed burning will apply within the above counties, except as noted below. The intent of the strategy is to shift burning that would be accomplished during the July-August period to the Spring and Fall months of lesser Class I area visitation and higher fuel moistures and not reduced acreage burned. To encourage Spring and Fall burning while maintaining protection of areas designated under the Smoke

Management Plan, improvements in the Plan have been made to accommodate the additional burning activity. It is expected that the visibility improvements accomplished by these short-term strategies can be achieved without significantly reducing, annual acreage burned by prescription below historical levels. For purposes of visibility protection, the Mt. Hood, Mt. Jefferson, Mt. Washington, Three Sisters and Diamond Peak Wilderness areas and Crater Lake National Park as well as all State of Washington Class I areas will be set aside under the Department of Forestry's Smoke Management Plan as "Smoke Sensitive" areas during the July 4 weekend to Labor Day period to be protected from visibility impairment. Visibility within all other Oregon Class I Areas will be protected during the July 4 weekend-Labor Day period under the smoke management provisions of the U.S.D.A Forest Service National Forest Management Plans.

#### Exemptions To Prohibition

##### (1) Coastal Burning.

Coastal conifer and hardwood conversion burning impacts on Class I area visibility will be minimized by management of emissions through the Department of Forestry Smoke Management Plan. The intent of the Plan is to prevent substantial visibility impairment from coastal burning by considering upper level wind trajectories and likely transport winds over the next 2 day period. In issuing burning instructions, the Department of Forestry may require application of BAT as necessary to accomplish the visibility protection and enhancement goals of this strategy.

##### (2) Western Cascade Burning.

###### (A) Research & Hardwood Conversion Burning.

Research fires and hardwood conversion burning are exempt from summer burning restrictions. The burning of these units will, however, be conducted in accordance with the Smoke Management Plan under which the Northern and Central Cascade Wilderness Areas will be treated as "Smoke Sensitive" areas. Research and hardwood conversion burning permitted under this exemption are not expected to exceed 1,200 acres during the July 4-Labor Day weekend period. Best Available Technology may be required by the Department of Forestry if greater than 1,200 acres is burned annually, as necessary to accomplish the visibility improvement and protection goals of this Plan. A report of acres burned and likely impacts on Class I areas visibility will be prepared by the Department of Forestry for inclusion in the annual Smoke Management Report. All reasonable attempts will be made to accomplish burning permitted under this exemption on meteorologically impaired days. Western Cascade burning includes the East Lane, Linn and Clackamas-Marion Forest Protection Districts as well as Mt. Hood and Willamette National Forest lands west of the crest of the Cascade Range.

###### (B) Willamette National Forest Burning.

Burning is allowed at elevations above 5000 feet during the July

4-Labor Day weekend period, with Class I areas treated as "Smoke Sensitive" areas.

Prescribed Burning Restriction Emergency Clause.

This section provides for the modification of burning prohibitions in the event of a joint finding by the State Forester and the Director of the Department of Environmental Quality that undue, adverse economic impacts on the forestry industry may be likely because of unusual weather conditions. A joint report, describing the findings of the State Forester and the Director of the Department of Environmental Quality shall be prepared for review during the Annual meetings (Section 5.2.4.1) in the event of enactment of the Emergency Clause .

(1) Spring Review. By not later than June 15th of each year, the State Forester will determine if, in his judgement, Spring burning conditions have been such that adverse economic impacts are likely to occur should prescribed burning during the July 4-Labor Day weekend period be prohibited. Upon concurrence by the Director of the Department of Environmental Quality, the summer burning prohibitions will be modified to the extent necessary to accomplish burning of the required acreage. All summer weekend burning accomplished under this clause will be will be conducted under the Class I area "Smoke Sensitive" provisions of the Smoke Management Plan.

(2) Fall Review. By August 31st of each year, the State Forester will determine if burning accomplished to date is adequate to avoid undue, adverse economic impacts on the forest land managers. Upon concurrence of the Director of the Department of Environmental Quality, every effort will be made to to increase the tonnage limitations and decrease the unit distance requirements during the remainder of the year, within the constraints of the Oregon Smoke Management Plan, to assure that the burning is accomplished. The Department of Forestry shall manage the burning to insure the protection of the Designated Areas.

The specifics of the prescribed burning short-term strategy will be contained in the Smoke Management Plan, Appendix B.

(B) Long-Term Strategy for Visibility Protection.

During the development of the long-term strategy, several factors have been considered. These include (a) emission reductions due to ongoing control programs; (b) additional emission limitations and schedules for compliance; (c) measures to mitigate the impacts of construction activities ; (d) the enforceability of emission limitations and control measures; (e) visibility impairment associated with new industrial sources; (f) smoke management techniques for agricultural and forest management purposes- including the current field and prescribed burning smoke management plans and (g) source retirement and replacement;

(1) Emission reductions due to on-going programs are discussed in section 5.2.5.7, below.

(2) Additional Emission limitations and schedules for compliance were not considered important to the long-range strategy since monitoring program results support the finding that industrial point sources are not a contributing cause of visibility impairment.

(3) Measures to mitigate construction impacts related to point sources are administered through the Air Contaminant Discharge Permitting and PSD rule process while soil dust entrained as a result of construction activities is controlled under the A95 review process, State and Federal Forest Practices Acts and permitting processes.

(4) Enforceability of emission limitations was not considered important to the long-term strategy because of the reasons outlined in (2), above.

(5) Smoke Management Techniques are essential elements of the strategy, as discussed below.

(6) Source Retirement and Replacement was considered. However, because visibility impairment from individual point sources has not been found to be significant, source retirement has not been viewed as beneficial. On-going stationary source emission reductions may, however, reduce impairment associated with urban plume impacts on Class I areas in the future.

As noted above, the long-term strategy focuses on mitigation of field and prescribed burning visibility impacts, emission reductions and the avoidance of plume impairment caused by future industrial sources.

#### Long-Term Strategy Overview

This section of the Plan outlines the long-term strategy for making reasonable progress toward the national visibility goal over the next 10-15 year period. Provisions A-D of the long term strategy apply to all mandatory Class I areas within Oregon while all provisions of the long-term strategy apply to visibility impaired Class I areas (Mt. Hood, Mt. Jefferson, Mt. Washington and Three Sisters Wilderness areas):

- (A) New Source Review
- (B) Intergovernmental Review (A95) Process
- (C) Emission Reductions Due to Ongoing Programs
- (D) Prevention of Significant Deterioration Rule
- (E) Development of New Crops Not requiring field burning
- (F) Development of grass straw utilization technology
- (G) Grass seed industry research and development efforts to seek, develop and promote viable alternative to burning
- (H) A goal of reducing annual forest prescribed burning emissions within Western Oregon by 22%, relative to 1984 emissions, through BAT application without further deterioration of visibility within other Class I areas of the state.

The elements of the long-term strategy have been coordinated with existing plans and goals, including those provided by the Federal Land Managers, which may affect visibility impairment within the

Class I areas. Future coordination will be accomplished through the annual and 3-year Plan review process specified in Section 5.2.4. New Source Review Element of the Long-Term Strategy.

The visibility impact protection provisions of the New Source Review Rule (OAR 340-20-220 through 280) assure that major new or modified industrial sources will not impair Class I area visibility (see Section 5.2.5.4). This provision of the long-term strategy applies to all Class I areas, statewide.

#### Field Burning Element of the Long-Term Strategy

Long term field burning strategies are listed in Table IIB. When fully implemented, these will result in a 40% reduction in the maximum annual emissions and a 45% reduction in average emissions from the 1982-84 baseline period. Coupled with appropriate smoke management strategies, these emission reductions are expected to result in a 50% reduction in occurrence of field burning related visibility impairment (a 10% overall reduction in visibility impairment due to all sources) within the Central Cascade Class I areas, excluding the regional haze benefits of the strategy.

The long-term strategies are being developed through an ongoing research program investigating alternatives to open field burning established under ORS 468 in 1977. This program has a nominal baseline funding level of \$500,000 per biennium. Additional funding can be expected thru the Oregon New Crops Development Board, from Oregon Lottery Commission funds (ORS 814) and from the federal Critical Agricultural Materials Program.

Progressive implementation of these strategies will occur as they are developed to the point of economic feasibility. The three year review process provides the opportunity to adopt and incorporate strategies as appropriate. Further, the Oregon Environmental Quality Commission has the authority under ORS 468 to reduce the maximum acreage that can be open burned each year if it finds that reasonable and economically feasible alternatives to the practice of open field burning have been developed.

These strategies are reasonable and adequate because (1) they will result in a substantial reduction in impairment, (2) ongoing research programs are in place to provide for continued progress in their development, and (3) progressive implementation is provided for through the 3-year review process and by existing statutory authority vested in the Environmental Quality Commission.

#### Prescribed Burning Element of the Long-Term Strategy

The long-term objective of this portion of the Plan is to meet the objectives established in the Clean Air Act as referenced in section 51.300 (a) of the EPA Regulations. In light of current technology, the Department believes that an additional 22 % emission reduction in Western Oregon prescribed forest burning emissions from that which

occurred during 1982-1984 period is achievable. Emission reductions to be achieved under this provision of the long-term strategy will be implemented in a reasonably linear manner throughout the 15 year period of this strategy.

Implementation of this strategy is expected to result in an additional 4 % reduction in summer visibility impairment in addition to the 60-90 % reduction in substantial impairment afforded by the short-term strategy.

The Department and Oregon Department of Forestry, in consultation with the Federal Land Managers and private land owners, shall through the Oregon Smoke Management Plan, implement a long-term strategy to further remedy existing and prevent future impairment through development and application of the Best Available Technology (BAT) elements listed in Table III, attached.

Research programs to implement these strategy elements will be encouraged and supported by the USDA Forest Service, Bureau of Land Management, National Park Service and others, to the extent possible within available budgets.

Provisions for annual and 3-year review of the Plan (section 5.2.2) will provide a forum to review progress toward achieving these long-term emission reduction goals. In addition, new technologies will be reviewed to determine the advisability of increasing the 50 % reduction goal.

#### 5.2.5.2 Protection of Integral Vistas

The EPA regulations of December 2, 1980 require protection of those integral vistas designated by the Land Managers as important to the visitor's visual enjoyment of the area. Such vistas could be identified by the Land Managers prior to December, 1985 in accordance with criteria developed by the designating agency following reasonable notice and opportunity for public comment. The Department need not consider any integral vistas which have not been identified in accordance with these criteria. Should the Department disagree with the Land Manager regarding integral vista designation, the Department will provide opportunity for the Land Manager to discuss the identification with the Governor. In addition, the Department may, under its own authority, identify integral vistas to be afforded protection under this Plan.

As no integral vistas were designated by the Land Managers (prior to December, 1985) or the Department, integral vista protection afforded under the Plan is limited to that associated with the control strategies included herein. Given that the Plan represents a strong commitment by the State of Oregon to achieve significant improvements in Class I area visibility, benefits of the Plan are expected to extend to potential integral vistas within Oregon.

### 5.2.5.3 Best Available Retrofit Technology

Section 51.302 (c) of the EPA regulations describes the general requirements of the SIP. These regulations require that the states identify and analyze for Best Available Retrofit Technology (BART) each existing stationary facility which may reasonably be anticipated to cause or contribute to impairment of visibility within Class I areas within which the impairment can reasonably be attributable to the source (51.302 (c) (2) (iii)).

As noted in Section 5.2.2.1 of this document, results from the visibility monitoring program have not identified any visibility impairment conditions which can reasonably be attributed to stationary source emissions within Oregon's Class I areas. Since the conditions described in Section 51.302 of the EPA regulations do not apply, Best Available Retrofit Technology rules are not included in the Plan.

### 5.2.5.4 New Source Review & Prevention of Significant Deterioration

The New Source Review rule (OAR 340-20-220 through 280) contains requirements for visibility impact assessment and mitigation associated with emissions from major new and modified stationary sources. The rule describes mechanisms for visibility impact assessment and review by the Department and Land Managers; Land Manager-Department coordination procedures, impact modeling methods and requirements. In conducting these reviews, the Department will ensure that new source emissions do not prescriptibly impair visibility within Class I areas, thereby providing an important element of the control strategy; that of assuring that future visibility impairment caused by new stationary sources is mitigated prior to facility construction.

The New Source Review Rule is attached as Appendix C.

The ambient air increment provisions of the Prevention of Significant Deterioration Rule (OAR 340-31-100 through 115) limit Class I pollutant concentration increases to specific increments above baseline air quality levels, thereby assuring that visibility impairment associated with increased particulate and nitrogen dioxide concentrations will not exceed that allowed by the increment.

### 5.2.5.5 Maintenance of Control Equipment

This Plan requires, through the Air Contaminant Discharge Permit provisions of the SIP (OAR 340-20-140 through 185), the maintenance and proper operation of emission control equipment in use at industrial point sources throughout Oregon. These requirements will apply to all new sources for which Air Contaminant Discharge Permits are issued.

### 5.2.5.6 Interstate Visibility Protection

In recognition of the importance of interstate transport of pollutants which can impair visibility within Oregon's Class I areas, the

Department will continue to work with neighboring States to coordinate visibility protection plans as required under Section 126 of the Clean Air Act. This coordination will attempt to ensure that economic and social effects of controls are administered fairly and as uniformly as possible. Affected Land Managers and state agencies within the State of Washington, the State of California and other states, as necessary, will be invited to participate in the periodic Plan reviews. To assure that the State of Washington Visibility Protection Plan provides a comparable level of visibility protection to that afforded under this Plan, the Department will work with the Washington Department of Ecology to improve the current Washington Interstate Protection Plan which is only directed toward summer weekend protection. The Department will work with the State of California Air Resource Board to ensure that the Oregon and California Visibility Protection Plans are compatible.

The Oregon Visibility Protection Plan Control Strategy, Sections 5.2.5.8 and 5.2.5.9 describing the Agricultural Field Burning and Forest Prescribed Burning Smoke Management Plans contain provisions designed to minimize impacts on Washington Class I areas during periods of peak visitor use. The principal elements of the Interstate Visibility Protection Plan include:

#### Field Burning Elements

A reduction in weekend burning upwind of Washington Class I areas during the July 4 to Labor Day weekend on "visibility important", clear weather days will result in a potential reduction in burning of 15,000-35,000 acres. Although it is unlikely that Willamette Valley field burning is a major contributor to visibility impairment within Washington's Class I areas, this element of the Oregon strategy may be beneficial.

#### Prescribed Burning Elements

The summer prohibition on Western Oregon Cascade prescribed burning will result in an 1,800 ton TSP emission reduction during the July 4 weekend-Labor Day period. In addition, prescribed burning conducted on the coast range will be managed such that Class I areas in Washington will be protected as "Smoke Sensitive Areas" under the Smoke Management Plan. Combined emission reduction and smoke management elements provided under this Plan should provide a significant benefits to Washington Class I area visibility.

#### 5.2.5.7 Emission Reductions Due To On-Going Control Programs

The Oregon Revised Statutes (ORS) Chapter 468 authorize the Oregon Environmental Quality Commission to adopt programs necessary to meet and maintain state and federal ambient air quality standards. The mechanisms for implementing these programs are the Oregon Administrative Rules (OAR). A summary of provisions of the OAR which assure emission reduction benefiting Class I visibility are noted below.

Emission growth limits within urban areas, the Department's Plant Site Emission Limitation (OAR 34-20-300) rule and other provisions of the State of Oregon Clean Air Act Implementation Plan (SIP) are intended to insure that air pollutant concentrations within Oregon are managed so as to assure that National Ambient Air Quality Standards are not violated. Further, the growth of air pollutant emissions is managed under the provisions of the SIP in a manner consistent with Clean Air Act requirements and the best interests of the people of Oregon. Each of these elements of the SIP insures that visibility impairment associated with the transport of urban haze into the Class I areas does not exacerbate visibility improvement to be achieved under the provisions of the Plan.

In addition, the provisions of the Intergovernmental Review (A95) Process, charged the Department with the responsibility of insuring that environmental (e.g. visibility) impacts projected as a result of federally funded projects are reviewed and approved prior to implementation. USDA Forest Service Forest Management Plans and Bureau of Land Management Environmental Impact Statements are reviewed by the Department to insure that such plans are consistent with the requirements of the Clean Air Act and State of Oregon SIP. Air quality impacts associated with prescribed burning are reviewed within this process in relation to Prevention of Significant Deterioration Class I increments and conformance to this Plan.

-----END-----

Table II(a)

## Field Burning Visibility Protection Strategies

<u>SHORT-TERM STRATEGY (1-5 years)</u>	<u>VISIBILITY BENEFITS</u>	<u>LIMITATIONS OR NEGATIVES</u>	<u>CONTROL COSTS</u>	<u>IMPACT REDUCTION</u>
<u>Encourage Early Season Burning (July):</u> Potential for additional 10-15,000 acres, depending on weather. Requires grower education.	Significantly reduced emissions from early maturing smokey varieties for less overload on mid to late season burn days. Better utilize early season days with better ventilation. Makes required weekend burning more feasible.	Increases fire escape and liability risks. Fields need 7-10 days drying after harvest.	Potential costs from delays and conflicts with harvest operations. Savings from less late-season field prep (fluffing, cutting, etc.).	Class I and urban areas (especially in August/September)
<u>Smoke Management Improvement (on-going):</u> Better forecasting and decision making especially under marginal or risky conditions.	Reduced frequency, intensity and duration of intrusions by reduced overload on high-risk days.	Concentrates more burning during low-risk periods. May increase Class I impacts on good ventilation days.	Potential costs for more farm personnel and equipment because of increased response to fewer opportunities.	Class I and urban areas (especially east Valley).
<u>Improve Burning Methods (general):</u> Rapid-ignition, lighting equipment, fluffers, etc. Requires grower education.	Reduced ground level emissions and impacts.	None.	Some investment costs for equipment.	Class I and urban areas.
<u>Evening Burning Program (currently experimental):</u> Potential additional 15,000 acres. Requires grower certification and coordination by industry.	Reduced ground level impacts by removing high-risk acreage from Westerly flow burn regimes. Makes reduced weekend burning more feasible.	Requires strict grower compliance and increased administrative burden. Precise limits and effect on Class I areas not fully known.	Some costs for equipment and crews to qualify.	Class I and urban areas.
<u>Reduce Weekend Burning Upwind of Class I Areas on "Visibility Important" Days (July 4 - Labor Day):</u> Potential loss of 15,000 - 35,000 acres. a) Develop/implement practical and flexible criteria. b) Phase-in 3 years.	Reduced impacts during high use "Visibility Important" periods.	Critically dependent on advance forecasts. Possible resultant increased burning and risk on good ventilation weekdays.	Requires equipment and crews to burn more in less time on weekdays (same as #2). Some savings from less stand-by time on weekends.	Class I, urban, and rural east Valley residential/recreation areas.

Table II(b)

<u>LONG-TERM STRATEGY (1-5 years)</u>	<u>VISIBILITY BENEFITS</u>	<u>LIMITATIONS OR NEGATIVES</u>	<u>CONTROL COSTS</u>	<u>IMPACT REDUCTION</u>
<u>Develop New Crops Not Requiring Burning (Meadowfoam, Rapeseed, etc.):</u> Potential for replacing up to 50,000 or more acres in long-term.	Reduced acres burned.	None, except long-term commitment needed for all parties.	Substantial funding required for market and agronomic development (long-term).	Class I and urban areas.
<u>Straw Utilization Development (i.e., fuel):</u> Potential for up to 50,000 acres in long-term.	Reduced acres burned.	Long-term economic and technical limits difficult to control and predict.	Substantial costs of straw removal/storage/processing must be offset by value of straw. Tax credit offsets available.	Class I and urban areas.
<u>Research and Development Program (on-going) and Feasibility Study:</u> Continue to seek, develop, and promote viable alternatives. Do Feasibility Studies to define the costs/benefits and program goals. Potential for significant acreage reduction.	Reduced acres burned.	None, except long-term rate of progress difficult to control and predict.	Potential for substantial costs for employing some alternatives. Tax credits offsets available.	Class I and urban areas.



<u>LONG-TERM AIR QUALITY BENEFITS</u>		<u>COST FACTORS</u>	<u>IMPACT REDUCTIONS</u>
D. Reduce fuel loading	Reduce emissions through reduction of residues burned	Combination of economic and environmental costs; Increase in brush and weed control needs; Not all feasible; Certain wildlife habitat sacrificed; Less soil protection from big chunks left on ground; Delayed reforestation due to brush competition	Less TSP
1. Firewood cutting	Less emissions during high recreation use periods		Visibility improvement through achievement of significant reductions achieved
2. Whole tree yarding	Fewer units needing to be burned		
3. Maximize recovery through felling & bucking procedures	Fewer units needing to be burned		Fewer smoke plumes
4. Chipping	Reduced residue to be burned		Increased fire hazard and re-resulting costs; Reduced net timber sale receipts due to high logging costs
5. YUM yarding	Piles can be burned during more favorable weather conditions		
E. Fuel management	Reduce acres burned and thereby reduce emissions	Substantial costs in dollars and time	Improve overall visibility and reduce intrusions
1. Chemicals		Note potential increase in problems from rodents, insects, and forest pathogens	
2. Use of explosives			
3. Mechanical site preparation		Increased fire hazard & suppression	
F. Based on the preceding strategies becoming feasible and practical, establish emission reduction goal of 50% from the 1976-1979 baseline by the year 2000			

**DIVISION 26**

**RULES FOR OPEN FIELD BURNING  
(Willamette Valley)**

**Introduction**

**340-26-001** (1) These rules apply to the open burning of all perennial and annual grass seed and cereal grain crops or associated residue within the Willamette Valley, hereinafter referred to as "open field burning". The open burning of all other agricultural waste material (referred to as "fourth priority agricultural burning") is governed by OAR Chapter 340, Division 23, Rules for Open Burning.

(2) Organization of rules:

(a) OAR 340-26-003 is the policy statement of the Environmental Quality Commission setting forth the goals of these rules.

(b) OAR 340-26-005 contains definitions of terms which have specialized meanings within the context of these rules.

(c) OAR 340-26-010 lists general provisions and requirements pertaining to all open field burning with particular emphasis on the duties and responsibilities of the grower registrant.

(d) OAR 340-26-012 lists procedures and requirements for registration of acreage, issuance of permits, collection of fees, and keeping of records, with particular emphasis on the duties and responsibilities of the local permit issuing agencies.

(e) OAR 340-26-013 establishes acreage limits and methods of determining acreage allocations.

(f) OAR 340-26-015 establishes criteria for authorization of open field burning pursuant to the administration of a daily smoke management control program.

(g) OAR 340-26-025 establishes civil penalties for violations of these field burning rules.

(h) OAR 340-26-031 establishes special provisions pertaining to field burning by public agencies for official purposes, such as "training fires".

(i) OAR 340-26-035 establishes special provisions pertaining to open field burning for experimental purposes.

(j) OAR 340-26-040 establishes special provisions and procedures pertaining to emergency open field burning and emergency cessation of burning.

(k) OAR 340-26-045 establishes provisions pertaining to approved alternative methods of burning, such as "propane flaming".

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 5-1984, f. & ef. 3-7-84; DEQ 12-1984, f. & ef. 7-13-84

**Policy**

**340-26-003** In the interest of public health and welfare, pursuant to ORS 468.455, it is the declared public policy of the State of Oregon to control, reduce, and prevent air pollution from open field burning by smoke management. In developing and carrying out a smoke management control program it is the policy of the Environmental Quality Commission:

(1) To provide for a maximum level of burning with a minimum level of smoke impact on the public, recognizing:

(a) The importance of flexibility and judgment in the daily decision-making process, within established and necessary limits;

(b) The need for operational efficiency within and between each organizational level;

(c) The need for effective compliance with all regulations and restrictions.

(2) To study, develop and encourage the use of reasonable and economically feasible alternatives to the practice of open field burning.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 5-1984, f. & ef. 3-7-84

**Definitions**

**340-26-005** As used in these rules, unless otherwise required by context:

(1) "Actively extinguish" means the direct application of water or other fire retardant to an open field fire.

(2) "Approved alternative method(s)" means any method approved by the Department to be a satisfactory alternative field sanitation method to open field burning.

(3) "Approved alternative facilities" means any land, structure, building, installation, excavation, machinery, equipment, or device approved by the Department for use in conjunction with an approved alternative method.

(4) "Commission" means the Environmental Quality Commission.

(5) "Cumulative hours of smoke intrusion in the Eugene-Springfield area" means the average of the totals of cumulative hours of smoke intrusion recorded for the Eugene site and the Springfield site. Provided the Department determines a smoke intrusion to have been significantly contributed to by field burning, it shall record for each hour of the intrusion which causes the nephelometer hourly reading to exceed background levels (the average of the three hourly readings immediately prior to the intrusion) by:

(a)  $5.0 \times 10^{-4}$  b-scat units or more, two hours of smoke intrusion;

(b)  $4.0 \times 10^{-4}$  b-scat units or more, for intrusions after September 15 of each year, two hours of smoke intrusion;

(c)  $1.8 \times 10^{-4}$  b-scat units or more but less than the applicable value in subsection (a) or (b), one hour of smoke intrusion.

(6) "Department" means the Department of Environmental Quality.

(7) "Director" means the Director of the Department or delegated employe representative pursuant to ORS 468.045(3).

(8) "District allocation" means the total amount of acreage sub-allocated annually to the fire district, based on the district's pro rata share of the maximum annual acreage limitation, representing the maximum amount for which burning permits may be issued within the district, subject to daily authorization. District allocation is defined by the following identity:

District Allocation =

$$\frac{\text{Maximum annual acreage limit}}{\text{Total acreage registered in the Valley}}$$

× Total acreage registered in the District

(9) "Drying day" means a 24-hour period during which the relative humidity reached a minimum less than 50% and no rainfall was recorded at the nearest reliable measuring site.

(10) "Effective mixing height" means either the actual height of plume rise as determined by aircraft measurement or the calculated or estimated mixing height as determined by the Department, whichever is greater.

(11) "Field-by-field burning" means burning on a limited or restricted basis in which the amount, rate, and area authorized for burning is closely controlled and monitored. Included under this definition are "training fires" and experimental open field burning.

(12) "Field reference code" means a unique four-part code which identifies a particular registered field for mapping purposes. The first part of the code shall indicate the grower registration (form) number, the second part the line number of the field as listed on the registration form, the third part the crop type, and the fourth part the size (acreage) of the field (e.g., a 35 acre perennial field registered on line 2 of registration form number 1953 would be 1953-2-P-35).

(13) "Fire district" or "district" means a fire permit issuing agency.

(14) "Fire permit" means a permit issued by a local fire permit issuing agency pursuant to ORS 477.515, 477.530, 476.380, or 478.960.

(15) "Fires-out time" means the time announced by the Department at which all flames and major smoke sources associated with open field burning should be out, and prohibition conditions are scheduled to be imposed.

(16) "Fluffing" means a mechanical method of stirring or tedding crop residues for enhanced fuel bed aeration and drying, thereby improving the field's combustion characteristics.

(17) "Grower allocation" means the amount of acreage sub-allocated annually to the grower registrant, based on the grower registrant's pro rata share of the maximum annual acreage limitation, representing the maximum amount for which burning permits may be issued, subject to daily authorization. Grower allocation is defined by the following identity:

$$\text{Grower Allocation} = 1.10 \times$$

$$\frac{\text{Maximum annual acreage limit}}{\text{Total acreage registered in the Valley}}$$

$$\times \text{Total acreage registered by grower registrant}$$

(18) "Grower registrant" means any person who registers acreage with the Department for purposes of open field burning.

(19) "Marginal conditions" means conditions defined in ORS 468.450(1) under which permits for open field burning may be issued in accordance with these rules and other restrictions set forth by the Department.

(20) "Nephelometer" means an instrument for measuring ambient smoke concentrations.

(21) "Northerly winds" means winds coming from directions from 290° to 90° in the north part of the compass, averaged through the effective mixing height.

(22) "Open field burning" means burning of any perennial or annual grass seed or cereal grain crop, or associated residue, in such manner that combustion air and combustion products are not effectively controlled.

(23) "Open field burning permit" means a permit issued by the Department pursuant to ORS 468.458.

(24) "Permit issuing agency" or "Permit agent" means the county court or board of county commissioners, or fire chief or a rural fire protection district or other person authorized to issue fire permits pursuant to ORS 477.515, 477.530, 476.380, or 478.960.

(25) "Preparatory burning" means controlled burning of portions of selected problem fields for the specific purpose of reducing the fire hazard potential or other conditions which would otherwise inhibit rapid ignition burning when the field is subsequently open burned.

(26) "Priority acreage" means acreage located within a priority area.

(27) "Priority areas" means the following areas of the Willamette Valley:

(a) Areas in or within three miles of the city limits of incorporated cities having populations of 10,000 or greater.

(b) Areas within one mile of airports servicing regularly scheduled airline flights.

(c) Areas in Lane County south of the line formed by U.S. Highway 126 and Oregon Highway 126.

(d) Areas in or within three miles of the city limits of the City of Lebanon.

(e) Areas on the west and east side of and within 1/4 mile of these highways: U.S. Interstate 5, 99, 99E, and 99W. Areas on the south and north side of and within 1/4 mile of U.S. Highway 20 between Albany and Lebanon, Oregon Highway 34 between Lebanon and Corvallis, Oregon Highway 228 from its junction south of Brownsville to its rail crossing at the community of Tulsa.

(28) "Prohibition conditions" means conditions under which open field burning is not allowed except for individual burns specifically authorized by the Department pursuant to rule 340-26-015(2).

(29) "Propane flaming" means an approved alternative method of burning which employs a mobile flamer device utilizing an auxiliary fuel such that combustion is nearly complete and emissions significantly reduced.

(30) "Quota" means an amount of acreage established by the Department for each fire district for use in authorizing daily burning limits in a manner to provide, as reasonably as practicable, an equitable opportunity for burning in each area.

(31) "Rapid ignition techniques" means a method of burning in which all sides of the field are ignited as rapidly as practicable in order to maximize plume rise. Little or no preparatory backfire burning shall be done.

(32) "Residue" means straw, stubble and associated crop material generated in the production of grass seed and cereal grain crops.

(33) "Responsible person" means each person who is in ownership, control, or custody of the real property on which open burning occurs, including any tenant thereof, or who is in ownership, control or custody of the material which is burned, or the grower registrant. Each person who causes or

allows open field burning to be maintained shall also be considered a responsible person.

(34) "Small-seeded seed crops requiring flame sanitation" means small-seeded grass, legume, and vegetable crops, or other types approved by the Department, which are planted in early autumn, are grown specifically for seed production, and which require flame sanitation for proper cultivation. For purposes of these rules, clover and sugar beets are specifically included. Cereal grains, hairy vetch, or field peas are specifically not included.

(35) "Smoke management" means a system for the daily (or hourly) control of open field burning through authorization of the times, locations, amounts and other restrictions on burning, so as to provide for suitable atmospheric dispersion of smoke particulate and to minimize impact on the public.

(36) "Southerly winds" means winds coming from directions from 90° to 290° in the south part of the compass, averaged through the effective mixing height.

(37) "Test fires" means individual field burns specifically authorized by the Department for the purpose of determining or monitoring atmospheric dispersion conditions.

(38) "Training fires" means individual field burns set by or for a public agency for the official purpose of training personnel in fire-fighting techniques.

(39) "Unusually high evaporative weather conditions" means a combination of meteorological conditions following periods of rain which result in sufficiently high rates of evaporation, as determined by the Department, where fuel (residue) moisture content would be expected to approach about 12 percent or less.

(40) "Validation number" means a unique five-part number issued by a permit issuing agency which validates a specific open field burning permit for a specific acreage in a specific location on a specific day. The first part of the validation number shall indicate the grower registration (form) number, the second part the line number of the field as listed on the registration form, the third part the number of the month and the day of issuance, the fourth part the hour burning authorization was given based on a 24-hour clock, and the fifth part shall indicate the size of acreage to be burned (e.g., a validation number issued August 26 at 2:30 p.m. for a 70-acre burn for a field registered on line 2 of registration form number 1953 would be 1953-2-0826-1430-070).

(41) "Ventilation Index (VI)" means a calculated value used as a criterion of atmospheric ventilation capabilities. The Ventilation Index as used in these rules is defined by the following identity:

VI =

$$\frac{\text{(Effective mixing height (feet))}}{1000}$$

×(Average wind speed through the effective mixing height (knots))

(42) "Willamette Valley" means the areas of Benton, Clackamas, Lane, Linn, Marion, Multnomah, Polk, Washington, and Yamhill Counties lying between the crest of the

Coast Range and the crest of the Cascade Mountains, and includes the following:

(a) "South Valley", the areas of jurisdiction of all fire permit issuing agents or agencies in the Willamette Valley portions of the counties of Benton, Lane, or Linn.

(b) "North Valley", the areas of jurisdiction of all other fire permit issuing agents or agencies in the Willamette Valley.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 29, f. 6-12-71, ef. 7-12-71; DEQ 93(Temp), f. & ef. 7-11-75 thru 11-23-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. & ef. 6-4-76; DEQ 138, f. 6-30-77; DEQ 140(Temp), f. & ef. 7-27-77 thru 11-23-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 22-1978, f. & ef. 12-28-78; DEQ 24-1979(Temp), f. & ef. 7-5-79; DEQ 28-1979, f. & ef. 9-13-79; DEQ 30-1979, f. & ef. 9-27-79, DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

### General Requirements

**340-26-010** (1) No person shall cause or allow open field burning on any acreage unless said acreage has first been registered and mapped pursuant to rule 340-26-012(1), the registration fee has been paid, and the registration (permit application) has been approved by the Department.

(2) No person shall cause or allow open field burning without first obtaining (and being able to readily demonstrate) a valid open field burning permit and fire permit from the appropriate permit issuing agent pursuant to rule 340-26-012(2).

(3) No person shall open field burn cereal grain acreage unless that person first issues to the Department a signed statement, and then acts to insure, that said acreage will be planted in the following growing season to a small-seeded seed crop requiring flame sanitation for proper cultivation, as defined in rule 340-26-005(34).

(4) No person shall cause or allow open field burning which is contrary to the Department's announced burning schedule specifying the times, locations and amounts of burning permitted, or to any other provision announced or set forth by the Department or these rules.

(5) Each responsible person open field burning shall monitor the Department's burn schedule announcements at all times while open field burning.

(6) Each responsible person open field burning shall actively extinguish all flames and major smoke sources when prohibition conditions are imposed by the Department or when instructed to do so by an agent or employe of the Department.

(7) No person shall open field burn priority acreage on the west side of and abutting U.S. Interstate 5 without first providing a non-combustible strip at least 8 feet in width between the combustible materials of said field and the freeway right-of-way, to serve as fireguard for safety purposes.

(8) Each responsible person open field burning within a priority area around a designated city, airport or highway shall refrain from burning and promptly extinguish any burning if it is likely that the resulting smoke would noticeably affect the designated city, airport or highway.

**OREGON ADMINISTRATIVE RULES**  
**CHAPTER 340, DIVISION 26 - DEPARTMENT OF ENVIRONMENTAL QUALITY**

(9) Each responsible person open field burning shall make every reasonable effort to expedite and promote efficient burning and prevent excessive emissions of smoke through employment of rapid ignition techniques on all acreage where there are no imminent fire hazards or public safety concerns.

(10) Each responsible person open field burning shall attend the burn until effectively extinguished.

(11) Open field burning in compliance with the rules of this Division does not exempt any person from any civil or criminal liability for consequences or damages resulting from such burning, nor does it exempt any person from complying with any other applicable law, ordinance, regulation, rule, permit, order or decree of the Commission or any other government entity having jurisdiction.

(12) Any revisions to the maximum acreage to be burned, allocation or permit issuing procedures, or any other substantive changes to these rules affecting open field burning for any year shall be made prior to June 1 of that year. In making rule changes, the Commission shall consult with Oregon State University.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 29, f. 6-12-71, ef. 7-12-71; DEQ 93(Temp), f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. 6-4-76; DEQ 138, f. 6-30-77; DEQ 140(Temp), f. & ef. 7-27-77 thru 11-23-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 22-1978, f. & ef. 12-28-78; DEQ 30-1979, f. & ef. 9-27-79; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

#### **Certified Alternative to Open Field Burning**

**340-26-011** [DEQ 105, f. & ef. 12-26-75;  
DEQ 114, f. 6-4-76;  
DEQ 138, f. 6-30-77;  
DEQ 140(Temp), f. & ef. 7-27-77  
thru 11-23-77;  
DEQ 6-1978, f. & ef. 4-18-78;  
DEQ 8-1978(Temp), f. & ef. 6-8-78  
thru 10-5-78;  
DEQ 2-1980, f. & ef. 1-21-80;  
DEQ 12-1980, f. & ef. 4-21-80;  
DEQ 9-1981, f. & ef. 3-19-81;  
Repealed by DEQ 5-1984, f. & ef. 3-7-84]

#### **Registration, Permits, Fees, Records**

**340-26-012** In administering a field burning smoke management program, the Department may contract with counties or fire districts to administer registration of acreage, issuance of permits, collection of fees and keeping of records for open field burning within their permit jurisdictions. The Department shall pay said authority for these services in accordance with the payment schedule provided for in ORS 468.480:

(1) Registration of acreage:

(a) On or before April 1 of each year, all acreage to be open burned under these rules shall be registered with the Department or its authorized permit agent on registration forms provided by the Department. Said acreage shall also be delineated on specially provided registration map materials

and identified using a unique field reference code. Registration and mapping shall be completed according to the established procedures of the Department. A non-refundable registration fee of \$1 for each acre registered shall be paid at the time of registration. A complete registration (permit application) shall consist of a fully executed registration form, map and fee.

(b) Registration of acreage after April 1 of each year shall require the prior approval of the Department and an additional \$1 per acre late registration fee if the late registration is due to the fault of the late registrant or one under his control.

(c) Copies of all registration forms and fees shall be forwarded to the Department promptly by the permit agent. Registration map materials shall be made available to the Department at all times for inspection and reproduction.

(d) The Department shall act on any registration application within 60 days of receipt of a completed application. The Department may deny or revoke any registration application which is incomplete, false or contrary to state law or these rules.

(e) It is the responsibility of the grower registrant to insure that the information presented on the registration form and map is complete and accurate.

(2) Permits:

(a) Permits for open field burning shall be issued by the Department, or its authorized permit agent, to the grower registrant in accordance with the established procedures of the Department, and the times, locations, amounts and other restrictions set forth by the Department or these rules.

(b) A fire permit from the local fire permit issuing agency is also required for all open burning pursuant to ORS 477.515, 477.530, 476.380, 478.960.

(c) A valid open field burning permit shall consist of:

(A) An open field burning permit issued by the Department which specifies the permit conditions in effect at all times while burning and which identifies the acreage specifically registered and annually allocated for burning;

(B) A validation number issued by the local permit agent on the day of the burn identifying the specific acreage allowed for burning and the date and time the permit was issued; and

(C) Payment of the required \$2.50 per acre burn fee.

(d) Open field burning permits shall at all times be limited by and subject to the burn schedule and other requirements or conditions announced or set forth by the Department.

(e) No person shall issue open field burning permits for open field burning of:

(A) More acreage than the amount sub-allocated annually to the District by the Department pursuant to rule 340-26-013(2);

(B) Priority acreage located on the upwind side of any city, airport or highway within the same priority area.

(f) It is the responsibility of each local permit issuing agency to establish and implement a system for distributing open field burning permits to individual grower registrants when burning is authorized, provided that such system is fair, orderly and consistent with state law, these rules and any other provisions set forth by the Department.

(3) Fees: Permit agents shall collect, properly document and promptly forward all required registration and burn fees to the Department.

(4) Records:

**OREGON ADMINISTRATIVE RULES**  
**CHAPTER 340, DIVISION 26 - DEPARTMENT OF ENVIRONMENTAL QUALITY**

(a) Permit agents shall at all times keep proper and accurate records of all transactions pertaining to registrations, permits, fees, allocations, and other matters specified by the Department, according to the established procedures of the Department. Such records shall be kept by the permit agent for a period of at least five years and made available for inspection by the appropriate authorities.

(b) Permit agents shall submit to the Department on specially provided forms weekly reports of all acreage burned in their permit jurisdictions. These reports shall cover the weekly period of Monday through Sunday, and shall be mailed and post-marked no later than the first working day of the following week.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 93(Temp). f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. 6-4-76; DEQ 138, f. & ef. 6-30-77; DEQ 140(Temp). f. & ef. 7-27-77 thru 11-23-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp). f. & ef. 6-8-78 thru 10-5-78; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84

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#### **Acreage Limitations, Allocations**

##### **340-26-013 (1) Limitation of Acreage:**

(a) Except for acreage open burned pursuant to rules 340-26-035, 340-26-040 and 340-26-045, the maximum acreage to be open burned annually in the Willamette Valley under these rules shall not exceed 250,000 acres.

(b) The maximum acreage allowed to be open burned under these rules on a single day in the south Valley under southerly winds shall not exceed 46,934 acres.

(c) Other limitations on acreage allowed to be open burned are specified in rules 340-26-015(7) and 340-26-035(1).

##### **(2) Allocation of Acreage:**

(a) In the event that total registration as of April 1 is less than or equal to the maximum acreage allowed to be open burned annually, pursuant to subsection (1)(a) of this rule, the Department shall sub-allocate to each grower registrant and each district (subject to daily burn authorization) 100 percent of their respective registered acreage.

(b) In the event that total registration as of April 1 exceeds the maximum acreage allowed to be open burned annually, pursuant to subsection (1)(a) of this rule, the Department may sub-allocate to growers on a pro rata share basis not more than 110 percent of the maximum acreage limit, referred to as "grower allocation". In addition, the Department shall sub-allocate to each respective fire district, its pro rata share of the maximum acreage limit based on acreage registered within the district, referred to as "district allocation".

(c) In order to insure optimum permit utilization, the Department may adjust fire district allocations.

(d) Transfer of allocations for farm management purposes may be made within and between fire districts and between grower registrants on a one-in/one-out basis under the supervision of the Department.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 93(Temp). f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. & ef. 6-4-76; DEQ 138, f. & ef. 6-30-77; DEQ 140(Temp). f. & ef. 7-27-77 thru 11-23-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp). f. & ef. 6-8-78 thru 10-5-78; DEQ

22-1978, f. & ef. 12-28-78; DEQ 13-1979, f. & ef. 6-8-79; DEQ 30-1979, f. & ef. 9-27-79; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84

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#### **Daily Burning Authorization Criteria**

**340-26-015** As part of the smoke management program provided for in ORS 468.470 the Department shall set forth the types and extent of open field burning to be allowed each day according to the provisions established in this section and these rules:

(1) During the active field-burning season and on an as needed basis, the Department shall announce the field burning schedule over the field burning radio network operated specifically for this purpose. The schedule shall specify the times, locations, amounts and other restrictions in effect for open field burning. The Department shall notify the State Fire Marshal of the burning schedule for dissemination to appropriate Willamette Valley agencies.

##### **(2) Prohibition conditions:**

(a) Prohibition conditions shall be in effect at all times unless specifically determined and announced otherwise by the Department.

(b) Under prohibition conditions, no permits shall be issued and no open field burning shall be conducted in any area except for individual burns specifically authorized by the Department on a limited extent basis. Such limited burning may include field-by-field burning, preparatory burning, or burning of test fires, except that:

##### **(A) No open field burning shall be allowed:**

(i) In any area subject to a ventilation index of less than 10.0, except for experimental burning specifically authorized by the Department pursuant to rule 340-26-035;

(ii) In any area upwind, or in the immediate vicinity, of any area in which, based upon real-time monitoring, a violation of federal or state air quality standards is projected to occur.

##### **(B) Only test-fire burning may be allowed:**

(i) In any area subject to a ventilation index of between 10.0 and 15.0, inclusive, except for experimental burning specifically authorized by the Department pursuant to rule 340-26-035;

(ii) When relative humidity at the nearest reliable measuring station exceeds 50 percent under forecast northerly winds or 65 percent under forecast southerly winds.

##### **(3) Marginal conditions:**

(a) The Department shall announce that marginal conditions are in effect and open field burning is allowed when, in its best judgment and within the established limits of these rules, the prevailing atmospheric dispersion and burning conditions are suitable for satisfactory smoke dispersal with minimal impact on the public, provided that the minimum conditions set forth in paragraphs (2)(b)(A) and (B) of this rule are satisfied.

(b) Under marginal conditions, permits may be issued and open field burning may be conducted in accordance with the times, locations, amounts, and other restrictions set forth by the Department and these rules.

##### **(4) Hours of burning:**

(a) Burning hours shall be limited to those specifically authorized by the Department each day and may be changed at any time when necessary to attain and maintain air quality.

(b) Burning hours may be reduced by the fire chief or his deputy, and burning may be prohibited by the State Fire Marshal, when necessary to prevent danger to life or property from fire, pursuant to ORS 478.960.

**(5) Locations of burning:**

(a) Locations of burning shall at all times be limited to those areas specifically authorized by the Department, except that:

(A) No priority acreage shall be burned upwind of any city, airport, or highway within the same priority area;

(B) No south Valley priority acreage shall be burned upwind of the Eugene-Springfield non-attainment area.

**(6) Amounts of burning:**

(a) In order to provide for an efficient and equitable distribution of burning, daily authorizations of acreages shall be issued by the Department in terms of single or multiple fire district quotas. The Department shall establish quotas for each fire district and may adjust the quotas of any district when conditions in its judgment warrant such action.

(b) Unless otherwise specifically announced by the Department, a one quota limit shall be considered in effect for each district authorized for burning.

(c) The Department may issue more restrictive limitations on the amount, density or frequency of burning in any area or on the basis of crop type, when conditions in its judgment warrant such action.

**(7) Limitations on burning based on air quality:**

(a) The Department shall establish the minimum allowable effective mixing height required for burning based upon cumulative hours of smoke intrusion in the Eugene-Springfield area as follows:

(A) Except as provided in paragraph (B) of this subsection, burning shall not be permitted whenever the effective mixing height is less than the minimum allowable height specified in Table 1, and by reference made a part of these rules.

(B) Notwithstanding the effective mixing height restrictions of paragraph (A) of this subsection, the Department may authorize burning of up to 1000 acres total per day for the Willamette Valley, consistent with smoke management considerations and these rules.

**(8) Limitations on burning based on rainfall:**

(a) Burning shall not be permitted in an area for one drying day (up to a maximum of four consecutive drying days) for each 0.10 inch increment of rainfall received per day at the nearest reliable measuring station.

(b) The Department may waive the restrictions of subsection (a) of this section when dry fields are available as a result of special field preparation or condition, irregular rainfall patterns, or unusually high evaporative weather condition.

**(9) Other discretionary provisions and restrictions:**

(a) The Department may require special field preparations before burning, such as, but not limited to, mechanical fluffing of residues, when conditions in its judgment warrant such action.

(b) The Department may designate specified periods following permit issuance within which time active field ignition must be initiated and/or all flames must be actively

extinguished before said permit is automatically rendered invalid.

(c) The Department may designate additional areas as priority areas when conditions in its judgment warrant such action.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 29, f. 6-12-71, ef. 7-12-71; DEQ 93(Temp), f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. & ef. 6-4-76; DEQ 138, f. 6-30-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 22-1978, f. & ef. 12-28-78; DEQ 24-1979(Temp), f. & ef. 7-5-79; DEQ 28-1979, f. & ef. 9-13-79; DEQ 30-1979, f. & ef. 9-27-79; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

**Winter Burning Season Regulations**

**340-26-020** [DEQ 29, f. 6-12-71, ef. 7-12-71; DEQ 93(Temp), f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. 6-4-76; DEQ 138, f. 6-30-77; DEQ 6-1978, f. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; Repealed by DEQ 5-1984, f. & ef. 3-7-84]

**Civil Penalties**

**340-26-025** In addition to any other penalty provided by law:

(1) Any person who intentionally or negligently causes or allows open field burning contrary to the provisions of ORS 468.450, 468.455 to 468.480, 476.380, and 478.960 or these rules shall be assessed by the Department a civil penalty of at least \$20, but not more than \$40 for each acre so burned.

(2) In lieu of any per-acre civil penalty assessed pursuant to section (1) of this rule, the Director may assess a specific civil penalty for any open field burning violation by service of a written notice of assessment of civil penalty upon the respondent. The amount of such civil penalty shall be established consistent with the following schedule:

(a) Not less than \$500 nor more than \$10,000 upon any person who:

(A) Causes or allows open field burning on any acreage which has not been registered with the Department for such purposes.

(B) Causes or allows open field burning on any acreage without first obtaining and readily demonstrating a valid open field burning permit for all acreage so burned.

(b) Not less than \$300 nor more than \$10,000 upon any person who fails to actively extinguish all flames and major smoke sources when prohibition conditions are imposed by the Department or when instructed to do so by an agent or employe of the Department.

(c) Not less than \$200 nor more than \$10,000 upon any person who:

**OREGON ADMINISTRATIVE RULES**  
**CHAPTER 340, DIVISION 26 - DEPARTMENT OF ENVIRONMENTAL QUALITY**

(A) Conducts burning using an approved alternative method contrary to any specific conditions or provisions governing such method.

(B) Fails to readily demonstrate at the site of the burn operation the capability to monitor the Department's field burning schedule broadcasts.

(d) Not less than \$50 nor more than \$10,000 upon any person who commits any other violation pertaining to the rules of this Division.

(3) In establishing a civil penalty greater than the minimum amount specified in sections (1) and (2) of this rule, the Director may consider any mitigating and aggravating factors as provided for in OAR 340-12-045.

(4) Any person planting contrary to the restrictions of subsection (1) of ORS 468.465 pertaining to the open burning of cereal grain acreage shall be assessed by the Department a civil penalty of \$25 for each acre planted contrary to the restrictions.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 93(Temp), f. & ef. 7-11-75 thru 11-28-75; DEQ 104, f. & ef. 12-26-75; DEQ 114, f. 6-4-76; DEQ 1, f. 6-30-77; DEQ 6-1978, f. & ef. 4-18-78; DEQ 8-1978(Temp), f. & ef. 6-8-78 thru 10-5-78; DEQ 2-1980, f. & ef. 1-21-80; DEQ 12-1980, f. & ef. 4-21-80; DEQ 9-1981, f. & ef. 3-19-81; DEQ 5-1984, f. & ef. 3-7-84

[ED. NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

**Tax Credits for Approved Alternative Methods, and Approved Alternative Facilities**

**340-26-030** [DEQ 114, f. & ef. 6-4-76;  
DEQ 138, f. 6-30-77;  
DEQ 6-1978, f. & ef. 4-18-78;  
DEQ 8-1978(Temp),  
f. & ef. 6-8-78 thru 10-5-78;  
DEQ 2-1980, f. & ef. 1-21-80;  
DEQ 12-1980, f. & ef. 4-21-80;  
DEQ 9-1981, f. & ef. 3-19-81;  
DEQ 5-1984, f. & ef. 3-7-84;  
Repealed by DEQ 12-1984, f. & ef. 7-13-84]

**Burning by Public Agencies (Training Fires)**

**340-26-031** Open field burning on grass seed or cereal grain acreage by or for any public agency for official purposes, including the training of fire-fighting personnel, may be permitted by the Department on a prescheduled basis consistent with smoke management considerations and subject to the following conditions:

(1) Such burning must be deemed necessary by the official local authority having jurisdiction and must be conducted in a manner consistent with its purpose.

(2) Such burning must be limited to the minimum number of acres and occasions reasonably needed.

(3) Such burning must comply with the provisions of rules 340-26-010 through 340-26-013.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 5-1984, f. & ef. 3-7-84

**Experimental Burning**

**340-26-035** The Department may allow open field burning for demonstration or experimental purposes pur-

suant to the provisions of ORS 468.490, consistent with smoke management considerations and subject to the following conditions:

(1) Acreage experimentally open burned shall not exceed 5,000 acres annually.

(2) Acreage experimentally open burned shall not apply to the district allocation or to the maximum annual acreage limit specified in rule 340-26-013(1)(a).

(3) Such burning must comply with the provisions of rules 340-26-010 and 340-26-012, except that the Department may elect to waive all or part of the \$2.50 per acre burn fee.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 5-1984, f. & ef. 3-7-84

**Emergency Burning, Cessation**

**340-26-040** (1) Pursuant to ORS 468.475 and upon a finding of extreme hardship, disease outbreak, insect infestation or irreparable damage to the land, the Commission may by order, and consistent with smoke management considerations and these field burning rules, permit the emergency open burning of more acreage than the maximum annual acreage limitation specified in rule 340-26-013(1)(a). The Commission shall act upon emergency burning requests within 10 days of receipt of a properly completed application form and supporting documentation:

(a) Emergency open burning on the basis of extreme financial hardship must be documented by an analysis and signed statement from a CPA, public accountant, or other recognized financial expert which establishes that failure to allow emergency open burning as requested will result in extreme financial hardship above and beyond mere loss of revenue that would ordinarily accrue due to inability to open burn the particular acreage for which emergency open burning is requested. The analysis shall include an itemized statement of the applicant's net worth and include a discussion of potential alternatives and probable related consequences.

(b) Emergency open burning on the basis of disease outbreak or insect infestation must be documented by an affidavit or signed statement from the County Agent, State Department of Agriculture or other public agricultural expert authority that, based on his personal investigation, a true emergency exists that can only be dealt with effectively and practicably by open burning. The statement shall also specify: time of field investigation; location and description of field, crop and infestation; extent of infestation (compared to normal) and the necessity for urgent control; availability, efficacy, and practicability of alternative control procedures, and; probable consequences of non-control.

(c) Emergency open burning on the basis of irreparable damage to the land must be documented by an affidavit or signed statement from the County Agent, State Department of Agriculture, or other public agricultural expert authority that, based on his personal investigation, a true emergency exists which threatens irreparable damage to the land and which can only be dealt with effectively and practicably by open burning. The statement shall also specify: time of field investigation; location and description of field, crop, and soil and slope characteristics; necessity for urgent control; availability, efficacy, and practicability of alternative control procedures, and; probable consequences of non-control.

(2) Pursuant to ORS 468.475 and upon finding of extreme danger to public health or safety, the Commission may order temporary emergency cessation of all open field burning in any area of the Willamette Valley.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 5-1984, f. & ef. 3-7-84

**Approved Alternative Methods of Burning (Propane Flaming)**

**340-26-045** (1) The use of propane flammers, mobile field sanitizing devices, and other methods specifically approved by the Department are considered alternatives to open field burning pursuant to the provisions of ORS 468.472 and 468.480, provided that:

(a) The field has first been:

(A) Previously open burned and the appropriate fees paid; or

(B) Flail-chopped, mowed, or otherwise cut close to the ground and the loose straw removed to reduce the straw fuel load as much as practicable;

(b) The remaining field stubble will not sustain an open fire; and

(c) A fire permit has been obtained from the local fire permit issuing agency.

(2) Propane flaming and other approved alternative burning methods may be conducted on any day during daylight hours and are exempt from rules 340-26-010 through 340-26-015 and are therefore not subject to open field burning requirements related to registration, permits, fees, limitations, allocations and daily burning authorization criteria.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 5-1984, f. & ef. 3-7-84

~~ALSO IN...~~

SMOKE MANAGEMENT PLAN ADMINISTRATIVE RULE

(Including Visibility)

Smoke Management Plan

629-43-043 (1) Objective: To [keep] prevent smoke resulting from burning on forest lands from being carried to or accumulating in designated areas (exhibit 2) or other areas sensitive to smoke[.], and to provide maximum opportunity for essential forest land burning while minimizing emissions, to coordinate with other state smoke management programs, and to conform with state and federal air quality and visibility requirements.

(2) Definitions:

(a) "Deep mixed layer" extends from the surface to 1,000 feet or more above the designated area ceiling.

(b) "Smoke drift away" occurs where projected smoke plume will not intersect a designated area boundary downwind from the fire.

(c) "Smoke drift toward" occurs when the projected smoke plume will intersect a designated area boundary downwind from the fire or when wind direction is indeterminate due to wind speed less than 5 mph at smoke vent height.

(d) "Smoke vent height" - level, in the vicinity of the fire, at which the smoke ceases to rise and moves horizontally with the wind at that level.

(e) "Stable layer of air" - a layer of air having a temperature lapse rate of less than dry adiabatic (approximately 5.5°F, per 1,000 feet) thereby retarding [either] upward [or downward] mixing of smoke.

(f) "Tons available fuel" - an estimate of the tons of fuel that will be consumed by fire at the given time and place. [Low volume is less than 75 tons per acre, medium volume 75 to 150 tons per acre, and high volume over 150 tons per acre.]

(g) "Residual smoke" - smoke produced after the initial fire has passed through the fuel.

(h) "Field administrator" - a forest officer or federal land administrator who has the direct responsibility for administering burning permits on a unit of forest land within the boundaries of an official fire district.

(i) "Restricted area" - that area delineated in Exhibit 2 for which permits to burn on forest land are required year round, pursuant to rule 629-43-041.

(j) "Designated area" - those areas delineated in Exhibit 2 as principal population centers.

(k) "Heavy use" - unusual concentrations of people using forest land for recreational purposes during holidays, special events.

(l) "Major recreation area" - areas of the state subjected to concentrations of people for recreational purposes.

(m) "State Forester" means the State Forester or delegated Department of Forestry employe representative.

(n) "Instructions" means the specific burn authorizations and weather discussions issued and disseminated as needed by the State Forester.

(o) "Smoke Management Plan" means the administrative rule approved by the State Forester and the Department of Environmental Quality and administered by the State Forester to control prescribed burning on forest lands.

(p) "Smoke Management Directive 1-4-1-601", as approved by the Department of Environmental Quality, is the Department of Forestry's operational guidance for administration of the Oregon Smoke Management Program.

(q) "Other Areas Sensitive to Smoke" are intended to consider specific recreation areas during periods of heavy use by the public such as coastal beaches on special holidays, federal mandatory Class I areas during peak summer use, special events. All Oregon and Washington Class I areas shall be considered as areas sensitive to smoke during the visibility protection period, defined in the Oregon Visibility Protection Plan, OAR 340-20-047, Sec. 5.2.

(3) Control:

(a) The State Forester is responsible for the coordination and control of the smoke management plan. The plan applies [statewide] to the restricted area set forth in Exhibit 2 with full interagency cooperation with the U.S.D.A., Forest Service, Bureau of Land Management, U. S. Fish and Wildlife Service, Bureau of Indian Affairs, private forest [industry] landowners, and the Department of Environmental Quality. The smoke management plan, Department of Forestry Directive 1-4-1-601 and

the Smoke Management instructions (and authorized variances) issued pursuant to the plan, shall be strictly complied with.

(b) Certain "designated areas" are established in consultation with the Environmental Quality Commission. [The major objective of smoke control efforts will be to keep smoke from forest land burning out of these designated areas.] Exhibit 2 delineates designated areas and specified ceilings.

(c) During periods of heavy use, major recreation areas in the state shall be provided the same consideration as "designated areas". Other areas sensitive to smoke shall be provided the same consideration as designated areas.

(d) The Smoke Management Plan shall be operated in a manner consistent with the requirements of the Oregon Visibility Protection Plan for Class I areas (OAR 340-20-047, Sec. 5.2).

(4) Administration:

(a) The State Forester, in developing instructions; and each field administrator issuing burning permits under this plan [will] shall manage the prescribed burning on forest land in connection with the management of other aspects of the environment in order to maintain a satisfactory atmospheric environment in designated areas (Exhibit 2). Likewise, this effort [may] shall be applied in special situations where local conditions warrant and that are not defined as designated areas but nevertheless are sensitive to smoke. The development of instructions and [A] accomplishment of burning will entail consideration of air quality conditions and weather forecasts (including burning forecasts and plans of the Department of Environmental Quality and the Washington Department of Natural  
5242E

Resources), acreages involved, amounts of material to be burned, evaluation of potential smoke column vent height, direction and speed of smoke drift, residual smoke, mixing characteristics of the atmosphere, and distance from the designated area of each burning operation. [Designated areas are outlined and vertical extents or ceilings are indicated in Exhibit 2).]

(b) The State Forester and [E] each field administrator [will] shall evaluate downwind conditions prior to implementation of burning plans. When the State Forester or a field administrator determines that visibility in a designated area, or other area sensitive to smoke is already seriously reduced or would likely become so with additional burning, or upon notice from the State Forester through the Protection Division [of Fire Control], or upon notice from the State Forester following consultation with the Department of Environmental Quality that air in the entire state or portion thereof is, or would likely to become adversely affected by smoke, the affected field administrator [will] shall terminate burning. Upon termination, any burning already under way will be completed, residual burning will be mopped up as soon as practical, and no additional burning will be attempted until approval has been received from the State Forester.

(5) Reports: Field administrators [will] shall report daily at such times and in such manner as required by the State Forester covering their daily burning operations. Any wildfire that has the potential for smoke input into a designated or smoke sensitive area [will] shall be reported immediately to

the State Forester's office. The State Forester shall report to the Department of Environmental Quality each day on a timely basis its forecast, planned and accomplished burning, and smoke intrusions.

(6) Key to Smoke Drift Restrictions:

(a) Smoke drift away from designated area: No specific acreage limitation will be placed on prescribed burning when smoke drift is away from designated area. Burning should be done to best accomplish maximum vent height and to minimize nuisance effect on any segment of the public.

(b) Smoke drift toward designated area:

(A) Smoke plume height below designated area ceiling.

Includes smoke that for reasons for fire intensity, location, or weather, will remain below the designated area ceiling. Also included are fires that vent into layers of air, regardless of elevation, that provide a downslope trajectory into a designated area:

(i) Upwind distance less than 10 miles outside designated areas. No new prescribed fires will be ignited.

(ii) Upwind distance 10-30 miles outside designated area boundary. Burning limited to 1,500 tons per 150,000 acres on any one day.

(iii) Upwind distances 30-60 miles outside designated area boundary. Burning limited to 3,000 tons per 150,000 acres on any one day.

(iv) Upwind distances more than 60 miles beyond designated area boundary. No acreage restriction unless otherwise advised by the Forester.

(B) Smoke will be mixed through the deep layer at the designated area. This section includes smoke that will be dispersed from the surface through a deep mixed layer when it reaches the designated area boundary:

(i) Upwind distance less than 10 miles from designated area boundary. Burning limited to 3,000 tons per 150,000 acres on any one day.

(ii) Upwind distance 10-30 miles from designated area boundary. Burning limited to 4,500 tons per 150,000 acres on any one day.

(iii) Upwind distances 30-60 miles outside designated area boundary. Burning limited to 9,000 tons per 150,000 acres on any one day.

(iv) Upwind distances more than 60 miles beyond designated area boundary. No acreage restriction unless otherwise advised by the Forester.

(C) Smoke above a stable layer over the designated area. Smoke in this group will remain above the designated area, separated from it by a stable layer of air:

(i) Upwind distance less than 10 miles outside designated area. Burning limited to 6,000 tons per 150,000 acres on any one day.

(ii) Upwind distance 10-30 miles outside designated area. Burning limited to 9,000 tons per 150,000 acres on any one day.

(iii) Upwind distances 30-60 miles outside designated area. Burning limited to 18,000 tons per 150,000 acres on any one day.

(iv) Upwind distances more than 60 miles beyond designated area boundary. No acreage restriction unless otherwise advised by the Forester.

(D) Smoke vented into precipitation cloud system. When smoke can be vented to a height above the cloud base from which precipitation is falling, there will be no restrictions to burning[.], unless otherwise advised by the Forester.

(c) Changing conditions: When changing weather conditions, adverse to the Smoke Management objective, occur during burning operations, aggressive mop-up [will] shall be initiated as soon as practical[.] and no additional burning shall be initiated.

(7) Analysis and Evaluation: The State Forester [will] shall be responsible for the annual analysis and evaluation of [state-wide] burning operations under this plan. Copies of the summaries will be provided to all interested parties.

(8) The Department of Environmental Quality, in cooperation with the State Forester, federal land management agencies, and private forest landowners shall develop maximum annual and daily emission limits in accordance with federal PSD (Prevention of Significant Deterioration) regulations.

NOTE THIS EXHIBIT PROPOSED TO BE  
 REPLACED IN ENTIRETY

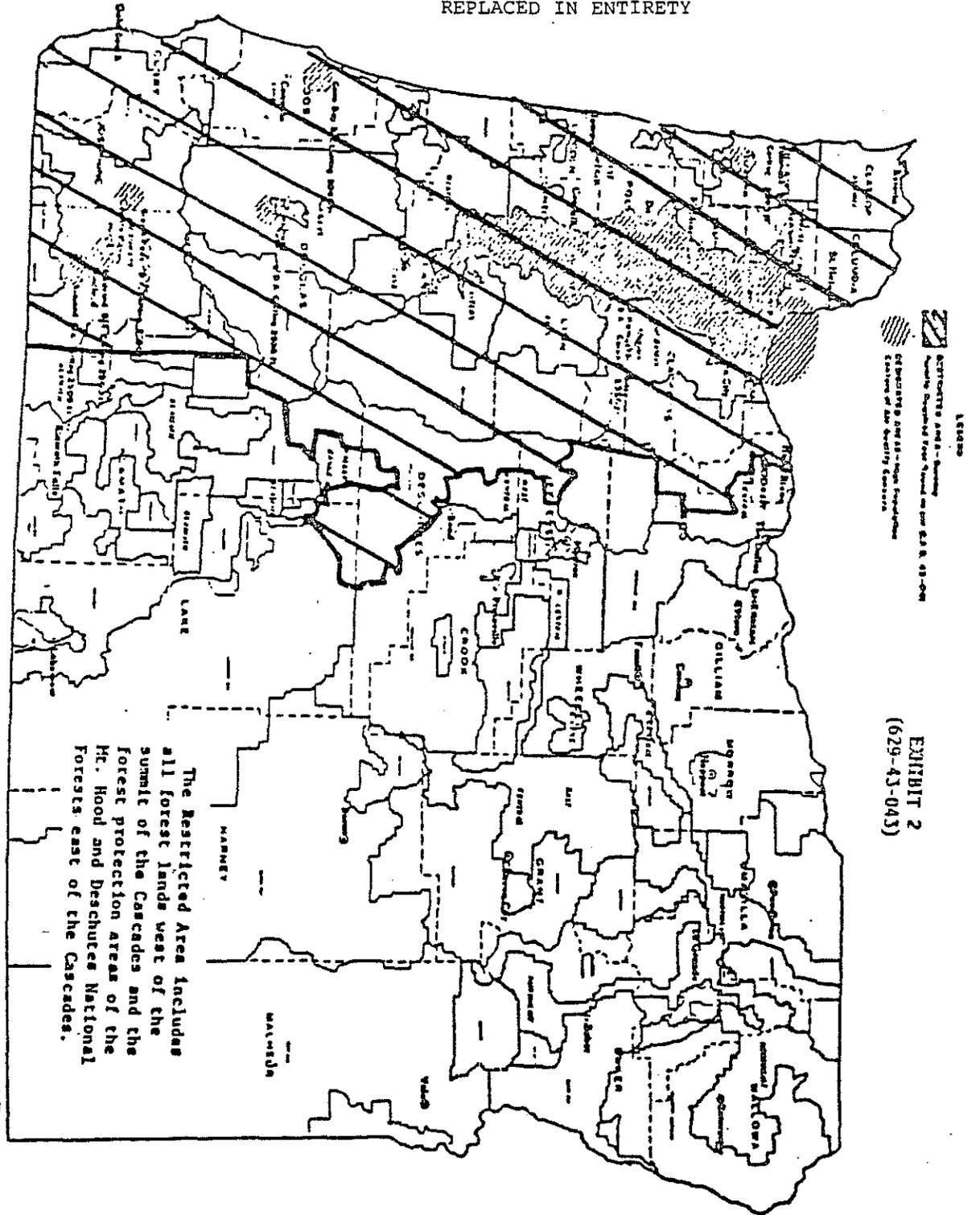


EXHIBIT 2  
 (629-43-043)



OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

PURPOSE. This directive sets forth the operational guidance for the Oregon Smoke Management Program. Contained herein are the objective, concept of operations, organizational guidance, and instructions for administration of the Oregon Smoke Management program.

SCOPE.

The Smoke Management Directive is:

1. Developed in cooperation with Federal and State agencies, landowners, and organizations which will be affected by the Smoke Management Program.
2. Jointly approved by the State Forester and (the Director of) DEQ.
3. Applicable to all prescribed burning on forests in western Oregon and selected portions of central Oregon as defined on Exhibit 2, OAR 629-43-043, Smoke Management Program.

SITUATION.

1. Authority:

ORS 477.515(3)(a) states:

"For the purpose of maintaining air quality, the State Forester and the Department of Environmental Quality shall approve a plan for the purpose of managing smoke in areas they shall designate."

ORS 477.515(3)(b) states:

"The State Forester shall promulgate rules to carry out provisions of the Smoke Management Plan..."

ORS 468.275 through 468.355 provides authority to DEQ to establish air quality standards including emissions standards for the entire state or an area of the state.

ORS 468.450 through 468.495 gives DEQ the authority to regulate field burning.

2. Under this authority:

a. The State Forester:

- (1) Coordinates the administration and operation of the plan.
- (2) Issues additional restrictions on prescribed burning in situations where the air quality of the entire state or any part thereof is, or would likely become, adversely affected by smoke.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

- (3) Issues daily burning instructions when needed.
- (4) Annually, analyzes and evaluates state-wide burning operations under the plan and provides copies of the summary to interested parties.

b. The Department of Environmental Quality:

- (1) Maintains a real-time air quality monitoring network that is used by OSDF.
- (2) Provides information on field burning activity.
- (3) Establishes criteria for air pollution emergencies and notifies OSDF of episode stages such as alerts, warnings, and emergencies.
- (4) Regulates the emission of air pollutants to ensure compliance with adopted standards, limits, and control strategy plans.
- (5) Notifies the Department of Forestry when the air in the entire State or portions thereof is or would likely become adversely affected by smoke.

3. Prescribed Burning in Oregon: An average of 104,000 acres is burned annually in western Oregon on 3,300 units. Tonnage burned has varied between a low of approximately 1.6 million in 1984 and a high of approximately 4.5 million in 1976. Burning activity varies according to seasonal weather and fuel conditions, and reforestation and land management needs.

4. Cooperating Agencies: The policies and resources of many public and private agencies and organizations have substantial influence on the administration of the Smoke Management Program. The entities and their responsibilities are:

a. State Agencies

- (1) Department of Environmental Quality: policy, information and resources.
- (2) Washington Department of Natural Resources: information.

b. Federal Agencies

- (1) USDA, Forest Service: resources.
- (2) Bureau of Land Management: resources.
- (3) Bureau of Indian Affairs: information.
- (4) U. S. National Park Service: information.
- (5) U. S. Fish & Wildlife Service: information.
- (6) National Weather Service: information and resources.

c. Other

- (1) Regional air pollution authority: information.
- (2) Oregon Forest Industries Council: information.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

5. Program Resources: The State Forester maintains a staff of four personnel in Salem and a field force of 65 foresters throughout western Oregon and central Oregon who participate in the Smoke Management Program to accomplish the inspection, enforcement, monitoring, and reporting tasks.

In addition, the USDA Forest Service and the BLM maintain field forces of approximately 80 supervisory personnel and professional foresters trained in the techniques of prescribed burning and the elements of the Smoke Management Program.

ASSUMPTIONS.

The Smoke Management Program is premised on the assumptions that:

1. Prescribed burning is a silvicultural technique of forest management that is beneficial to reforestation, forest stand improvement, wildlife habitat and the reduction of insect and disease problems.
2. Significant reductions in the cost and damages resulting from wildfire are achieved by burning slash residues following harvesting operations.
3. Smoke resulting from prescribed burning can be managed meteorologically to minimize the air quality impacts on populated areas and other areas sensitive to smoke.

DEFINITIONS. See OAR 629-43-043 (2a - p).

POLICY.

The policy of the State Forester is to:

1. Regulate prescribed burning operations on forest land recognizing the need to maintain forest productivity and the need to maintain air quality in populated areas and areas sensitive to smoke.
2. Achieve strict compliance with the Smoke Management Plan, Directive and instructions.
3. Encourage cost-effective utilization of forest residues as a means to reduce burning.

OBJECTIVE. To prevent smoke, resulting from burning on forest lands, from being carried to or accumulating in designated areas and other areas sensitive to smoke; to provide maximum opportunity for essential forest land burning while minimizing emissions; to coordinate with other state smoke management programs; and, to conform with state and federal air quality and visibility requirements.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

PROGRAM ELEMENTS.

1. The Smoke Management Plan: The Smoke Management Plan (OAR 629-43-043) provides a specific framework for the administration of the Smoke Management Program as administered by the State Forester.

The plan instructs the State Forester and each Field Administrator to maintain a satisfactory atmospheric environment in designated areas and other areas sensitive to smoke consistent with the plan objectives and smoke drift restrictions.

In administering the Smoke Management Program, the Forester and the Field Administrators are required to continually monitor weather factors and air quality conditions in designated areas and other areas sensitive to smoke.

The plan establishes a set of limitations applicable to specified burning and mixing conditions. These limitations relate to tonnage of fuel per 150,000 acres which, ideally, may be burned under various sets of mixing conditions. Experience has shown that these standards are adequate to protect designated areas only under ideal conditions. Frequently, in order to meet air quality objectives, more specific restrictions must be applied through issuance of Smoke Management instructions by the State Forester.

2. Operator's Written Plan: OAR 629-43-045 requires that prior to prescribed burning, a forest landowner or operator shall, in cooperation with the State Forester, develop a written plan which shall include consideration of "air quality".
3. Smoke Management Forecasts: The Salem and Medford Forestry Fire Weather offices provide smoke management forecasts daily. The forecast is for the following day (the forecast period) with an update as necessary on the morning of the forecast period (Salem only). An extended forecast may be provided depending on the weather influences involved at any given time.

The forecasts include reference to transport winds and mixing for the restricted area and other areas sensitive to smoke. Burning will be conducted in accordance with the current forecast information, including updated forecasts, when issued.

4. Smoke Management Instructions

Smoke Management Instructions will be issued only by the Salem Forestry Fire Weather Center and only during periods when weather is favorable for significant amounts of burning (usually late May through October). The instructions provide constraints on burning in areas where the restrictions, set forth in the Smoke Management Plan, may be inadequate to protect designated areas or other areas sensitive to smoke.

The instructions are based upon an analysis of the atmospheric conditions affecting smoke transport, dispersion, and air quality and visibility conditions in designated areas and other areas sensitive to smoke.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

5. Priority Burning System: The Forest Land Burning Priority Rating System was initiated to reduce the amount of forest land burning during the time when the maximum acreage of grass seed fields are being burned in the Willamette Valley. There are approximately 60 days during mid-summer when field burning has been given a high priority for use of the air shed in the valley for smoke dispersal. The Priority Burning System was developed by the Department of Forestry in coordination with the Department of Environmental Quality and with the cooperation of public and private forest land managers.

The priority burning period is established by the Department of Forestry upon the recommendation of the Department of Environmental Quality. The exact period varies from year to year and may extend for more or less than 60 days.

The Priority Burning System limits forest land burning during the 60-day period to units which must be burned during that time to meet the burning objectives. Only units with a high priority rating will be burned when the Priority Burning System is in effect. The Forester will provide notice to all Field Administrators when the Priority Burning System is initiated and rescinded.

The procedures for rating and prioritizing burn units are included in Appendix 3 of this directive. These procedures will apply to all units which may be burned when priority burning restrictions are in effect.

6. Enforcement: All forest land prescribed burning will be done in accordance with the daily Smoke Management Instructions and this directive:
- a. On private land: Violations of the Smoke Management Plan, Directive or the daily instructions issued by the State Forester are subject to enforcement action by the State Forester:
    - (1) Burning without a permit is a violation of ORS 447.515.
    - (2) Burning not in compliance with the Smoke Management Plan and Directive is a violation of OAR 629-24-301(7).
  - b. On Federal forest land:

Violations of the Smoke Management Plan Directive or the daily instructions issued by the State Forester are subject to federal enforcement action under Section 118 of the Clean Air Act, as amended in 1977.

Section 118 states that "Each...agency...of the Federal Government...engaged in any activity resulting...in the discharge of air pollutants...comply with all Federal, State, interstate, and local requirements,...respecting the control and abatement of air pollution in the same manner, and to the same extent as any nongovernmental entity."

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

7. Air Stagnation Advisories: Air stagnation advisories are issued by the National Weather Service Forecast Office in Portland when atmospheric conditions are such that the potential exists for air pollutants to accumulate for an extended period. During such times smoke and other pollutant sources within designated areas will create substantial air quality deterioration without the addition of smoke from outside sources. This condition is recognized in the administration of the Smoke Management Plan.

Smoke Management Instructions issued during an Air Stagnation Advisory will limit forest land burning to units which will not contribute smoke to a designated area covered by an Air Stagnation Advisory or an Air Pollution Alert issued by DEQ. Burning during such periods will be closely controlled.

8. Monitoring: The State Forester will monitor prescribed burning operations periodically by aircraft and other means:
1. to insure compliance with the Smoke Management Program; and,
  2. to determine the effectiveness of smoke management procedures.

Real-time air quality monitoring data is available to the State Forester through computer link with DEQ. This information will be used in the preparation and validation of daily Smoke Management Instructions as appropriate.

To evaluate compliance with the Smoke Management Program, the State Forester shall conduct a review of approximately 1% of the units burned each year. All units to be audited will be randomly selected. Each audit will include a site visit during burning, visual tracking and documentation of long range plume behavior and a determination of compliance with (a) the conditions of the burning permit; (b) the provisions of the Smoke Management Administrative Rules and Directives; and (c) compliance with the Smoke Management Program Instructions. The Department of Environmental Quality may jointly participate in some audits. Following completion of the audits, a written report of all findings shall be prepared. Significant findings shall be included in the Smoke Management Program Annual Report.

9. Reporting and Analysis:

Information is needed from the Field Administrators to provide for analysis of the program procedures. Reporting will be accomplished in accordance with Appendix 1, Detailed Instructions for the Oregon Smoke Management Reporting System.

10. Annual Report: The State Forester will prepare an annual report of statewide forest land prescribed burning, wildfire and smoke management activities. The report will summarize burning activities of the previous year and intrusion events and make pertinent observations toward improved operational efficiency in the program.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

STANDARDS.

1. Quantification of Forest Residues: The consistent estimation of the tons of fuel consumed in each prescribed burn is important to the development and equitable operation of the Smoke Management Program. To determine the fuel consumed by a prescribed burn:
  - a. Determine total pre-burn fuel tonnage load.
  - b. Calculate woody fuel consumption using 1000-hour timelag fuel moisture and algorithm developed to predict large fuel consumption.
  - c. Calculate and add duff consumption.

Estimation by Field Administrators of the total pre-burn fuel tonnage will be through the application of the "planer transect method" of inventorying forest residue. The planer transect method may be applied by the actual measurement of fuels, or by use of the publication "Photo Series for Quantifying Forest Residue", or through supplemental photographs developed by following appropriate procedures.

Instructions for the actual measurement of fuels are contained in the "Handbook for Inventorying Downed and Woody Material", U.S.D.A. Forest Service General Technical Report INT-16, 24p, Intermountain Forest and Range Experiment Station, Ogden, Utah.

Instructions for using the "Photo Series" are included in Appendix 4. A publication has been developed for western Oregon and eastern Oregon fuel types.

Instructions for fuels inventory and consumption procedures and utilization of 1000-hour fuels data are contained in Appendix 4.

2. Intrusions Defined: A smoke intrusion occurs when smoke from prescribed burning enters a Designated Area or other smoke sensitive area at ground level. When measurements or observations are available, intrusions are characterized as light, moderate, or heavy based on hourly nephelometer measurements of less than  $1.8 \times 10^{-4}$  B-scat, between  $1.8 \times 10^{-4}$  and  $4.9 \times 10^{-4}$  B-scat, and  $5.0 \times 10^{-4}$  B-scat and greater, respectively, above the clean air background. The clean air background is the average nephelometer reading for the 3 hours prior to the intrusion.

When no nephelometer data are available, the following visibility table will be used when visibility data are available. Standard National Weather Service visibility observation criteria will be used for reporting purposes. (See Appendix 2.)

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

INTRUSION CLASSIFICATION BASED ON VISIBILITY  
(For instructions on use see Appendix 2)

Background Visibility (Miles)*	INTRUSION INTENSITY**		
	LIGHT	MODERATE	HEAVY

REDUCED VISIBILITY - RV (MILES)

>50	RV > 11.4	11.4 < RV > 4.6	RV < 4.6
25-50	RV > 10.5	10.5 < RV > 4.4	RV < 4.4
20-24	RV > 8.1	8.1 < RV > 4.1	RV < 4.1
15-19	RV > 7.5	7.5 < RV > 3.8	RV < 3.8
10-14	RV > 6.2	6.2 < RV > 3.5	RV < 3.5
5-9	RV > 3.7	3.7 < RV > 2.5	RV < 2.5
3-4	RV > 2.5	2.5 < RV > 1.8	RV < 1.8
1-2	RV > 1	1 < RV > 0.5	RV < 0.5
0	RV > -	-	0

\* Background based on 3-hour average visibility prior to reduction due to activity smoke. Visibility changes during naturally occurring periods of change, may have to be factored into the classification on a case-by-case basis (i.e., from daylight to dark, during a rain shower, etc.).

\*\* Reduced visibility must be determined to be predominantly from prescribed burning in order to determine intensity class.

Intrusions will be reported to the Smoke Management Program Administrator who will notify DEQ on a timely basis. See Appendix 2, Smoke Intrusion Report Form 1-4-1-301.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

3. Daily and Annual Maximum Tonnage: The Department of Environmental Quality, in cooperation with the State Forester, federal land management agencies, and private forest land owners shall develop maximum annual and daily emission limits in accordance with federal PSD (Prevention of Significant Deterioration) regulations.

SPECIAL GUIDANCE.

1. Instructions: Smoke Management Instructions will be issued from Salem at approximately 3:15 PM daily for the entire restricted area. By 7:00 AM each day a message will be placed on an automatic answering phone only if the previous 3:15 PM instructions will be updated. If the 3:15 PM instructions are still valid at 7:00 AM they will remain on the recording. If there is to be an update, burning shall not be initiated in the affected area until updated instructions are issued. Any amended instructions (either written or verbal) that are issued during the working day shall be strictly complied with.

The instructions shall be considered as directives from the State Forester. The authority for approving prescribed burning is delegated to the District Forester for burning regulated directly by the State Forester (private and BLM forest land), and to the Forest Supervisor for the U.S.D.A., Forest Service, and the Park Superintendent for the National Park Service for burning coordinated with the State Forester. These delegates and their designated field personnel are "Field Administrators". Any planned variances from the daily burning instructions will be discussed with the Smoke Management Duty Forecaster. If the Smoke Management Duty Forecaster and District Forester cannot agree on deviation from the instructions, the Deputy State Forester will discuss the situation and provide final resolution. If the Forest Supervisor or Park Superintendent and the Smoke Management Duty Forecaster cannot agree on deviation from the instructions, the Deputy State Forester will discuss the situation and make final resolution.

Variances or revisions to the instructions shall be recorded by the Protection Division.

2. Requests for Information: The State Forester's Office will provide more specific information to Field Administrators when requested by telephone. The following telephone numbers will be used in regards to the Smoke Management Instructions:

378-2800: "Automatic Answering Phone" recording with Smoke Management Instructions. Instructions will be recorded by approximately 7:00 AM (as needed) and 3:15 PM.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

- 378-2153: Smoke Management Duty Forecaster. Call this number for forecasts, instructions, and other daily operations. Do not call between 2:30 PM and 3:15 PM, or prior to 8:30 AM. These times are used to prepare instructions.
- 378-2509: Salem Fire Weather Forecast Service. Use this for fire weather needs; not smoke management.
- 378-2518: Salem Communications. For assistance in getting unit numbers, planning and resulting units or other daily data needs. Do not use for daily decision-making assistance.
3. Reduction of Emissions: The Department of Forestry will encourage private forest landowners to burn only those units that must be burned to achieve the landowners' objectives. Forest Practices Foresters, through the administration of the Forest Practices Act, will encourage utilization of residue, fuel reduction measures, and alternate treatment practices that are consistent with the purposes of the Forest Practices Act. The Department of Forestry supports efforts to reduce prescribed burning emissions and will strive to achieve emissions reduction goals established within the Oregon Visibility Protection Plan.
- Burning during time periods when 1000-hours and larger fuels (3 inches in diameter or larger fuels) have relatively high fuel moistures, such as during spring, will be promoted where such burning is within the prescription necessary to achieve the objectives of the landowner.
- Mass ignition methods will be encouraged to help reduce emissions where such techniques are economical and practical.
- To minimize impacts from residual smoke, mop-up will be initiated on all units consistent with atmospheric and wind conditions. Within this context, during periods of observed or forecast low level transport toward the designated areas, mop-up shall begin immediately.
4. Monitoring of smoke behavior will be intensified on marginal days. This will be done by use of lookouts, aerial observation, and on-site observation of smoke behavior.
5. Any wildfire that has the potential for smoke input into a designated area or other area sensitive to smoke will be reported immediately to the State Forester's Fire Operations Section who will advise DEQ on a timely basis.
6. Test Burn Project: In order to determine the feasibility of alternative schedules in burning to minimize smoke impacts while maintaining burning accomplishments, a test project will be established during 1986-88. Special strategies will be employed in burning, and assessment will be made for impacts on air quality and burning accomplishment.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

7. Tonnage limits will be reviewed by the DEQ and the Department of Forestry for possible update and revision, as necessary, as uniform fuel loading estimation and consumption procedures are developed and tested.
8. A statewide forest fuels inventory procedure will be developed by the Department of Forestry in cooperation with the Department of Environmental Quality. The new procedure will be implemented in 1987.

RESPONSIBILITIES.

1. State Forester: The State Forester is responsible for the coordination of the Smoke Management Plan and the Operating Details between the National Weather Service, U.S.D.A. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, forest landowners, Department of Environmental Quality, National Park Service, Bureau of Indian Affairs, Washington State Department of Natural Resources, and regional air quality authorities. In addition, the State Forester, through the Forest Protection Division, has the responsibility to issue additional restrictions on prescribed burning in situations where the air quality of the entire state or any part thereof is, or would likely become, adversely affected by smoke.
2. Forest Protection Division: The Forest Protection Division is directly responsible for:
  - a. Providing weather forecasting services for Smoke Management purposes.
  - b. Issuing Smoke Management Instructions to Field Administrators.
  - c. Coordinating with Department of Forestry's Area and District offices, cooperating agencies, and forest land owners in identifying training needs and in developing training programs.
  - d. Monitoring the Smoke Management Program.
  - e. Providing on-the-ground assistance to Field Administrators as requested.
  - f. Maintaining liaison with Field Administrators through the Smoke Management Meteorologist and normal staff/line relationships.
  - g. Maintaining the Smoke Management Record System.
3. Field Administrators: Oregon Department of Forestry field administrators will administer prescribed burning according to the Smoke Management Plan, Operational Guidance for the Oregon Smoke Management Program (Directive 1-4-1-601), and the daily Smoke Management Instructions.

OPERATIONAL GUIDANCE FOR THE OREGON  
SMOKE MANAGEMENT PROGRAM  
(Including Visibility)

U.S.D.A., Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS), U. S. Fish and Wildlife Service (USFWS), and the Bureau of Indian Affairs (BIA). Federal land management agencies are required by law to follow the directions of the Forester for the protection of air quality in conducting prescribed burning operations in the restricted area. They will follow the smoke management weather forecasts, smoke management instructions, and priority burning restrictions as provided by the Oregon Smoke Management Plan and the Operational Guidance for the Oregon Smoke Management Program (Directive 1-4-1-601).

- o Make daily reports relating to burning operations.
- 4. Department of Environmental Quality (DEQ): The State Forester and the DEQ are required by ORS 477.515 to approve a plan for the purpose of managing smoke in areas they shall designate. The Oregon Smoke Management Plan is the product of this statutory requirement.
- 5. Private Forest Landowners: It is the responsibility of private forest landowners under Oregon Forest Laws to do forest land prescribed burning according to the Oregon Smoke Management Plan. They are responsible to burn according to directions from State Forestry Field Administrators and to do mop-up of prescribed burns necessary to maintain air quality and visibility in designated areas and areas sensitive to smoke.

CONTROL.

Review: The Smoke Management Plan and Directive shall be reviewed at least every three years. The review will be conducted jointly by the State Forester and the Director of Environmental Quality and will include representatives of affected agencies and parties.

AGREEMENT:

In witness whereof, the parties have agreed to the guidelines set forth in this Directive.

State of Oregon  
Department of Forestry

State of Oregon  
Department of Environmental Quality

by: \_\_\_\_\_

by: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Objective: The Department of Forestry's Fire Operations center operates a computer program to record and process smoke management data. Data is received and transmitted through the State Forestry and U.S. Forest Service communications systems.

The objectives of the reporting system are to provide a current record of:

1. Locations and amounts of planned burning for the current day.
2. Locations and amounts of burning accomplished the previous day.
3. Annual summaries of data for air quality purposes.

Area Included:

Reporting is required throughout the state. The procedure and frequency of reporting needs for different areas of the state are identified below. Data are grouped by Administrative Units, i.e., National Forest, Crater Lake National Park and each State Forest Protection District.

Types of Burning to be Included:

All burning related to forest management activities should be included in the reporting system. Some examples are slash and brush disposal after logging, road building, scarification, or burning of brush fields for reforestation. Other examples which should be included are underburning, or brush field burning for stand improvement or wildlife habitat.

Types of Burning That Should Not be Included:

Burning for debris disposal or burning related to agricultural activities should not be included in the reporting system. Some examples are household or yard maintenance debris such as paper, leaves, lumber, etc., and grass or grain stubble. Small piled slash areas such as for a homesite should not be included if the amount to be burned is less than 5 tons.

While these examples would not be reported in the Smoke Management Plan Data System, any burning subject to permit under ORS 477.515 must conform to the Smoke Management Plan. Also, in some areas "backyard" and stubble burning must be done in compliance with the Department of Environmental Quality (DEQ) rules, rather than the Oregon Smoke Management Plan.

Range improvement burning data in central and eastern Oregon should not be included in the reporting system.

Procedure:

For units outside of the restricted area and right-of-way units, see the "Frequency of Reporting" paragraphs. In the restricted area, three basic steps are involved in the reporting system:

1. A "Unit Description" is submitted to Salem for each "burn unit" as provided on Reporting System Coding Sheet (Part I, Form 1-4-1-501).

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

This results in a "Unit Number" assigned to the specific burn unit, anywhere from several months or weeks to a day before the burning is to be done. Field offices with access to the OSDF computer network should enter the data directly into the computer.

2. "Unit Numbers" of planned burns in the restricted area are submitted by field offices on the day burning is to be done. This results in "Planned Burns" (Part II of Form 1-4-1-501). Planned burns are posted daily on the communications network for all users and the list is sent to DEQ.
3. An "Accomplishment Report" is submitted by field offices in the restricted area the day after burning, again using "Unit Number" as a reference (See Part III of Form 1-4-1-501). The accomplishment report is posted daily along with planned burns.

Frequency of Reporting:

In the restricted area (see OAR 629-43-043), all planned and accomplished burning should be entered into the computer on a daily basis. The planned burns are entered by 10:15 AM on the morning of the burn; accomplishments are reported by 10:15 AM on the next working day after the unit is burned. Special circumstances due to an office closure or a late planned or accomplished burn should be handled through the Fire Operations Center in Salem. This is not expected to be a routine practice.

Right-of-way burning should be accomplished in accordance with the instructions on Form 1-4-1-502. Basically, right-of-way units should get a unit number as per step 1 in the procedure listed above. Right-of-way units do not have to be planned or accomplished on a daily basis. Accomplishments should be submitted promptly to Salem Fire Operations by the 5th of each month for the prior month's activity.

Outside of the restricted area, unit numbers should be obtained as per step one in the procedure listed above. Otherwise, units do not have to be planned on a daily basis nor does an accomplishment report have to be submitted to Salem on a daily basis. However, Part III (Accomplishment Report) of Form 1-4-1-501 must be completed for every burn with the date of the burn identified for each unit. If a unit is burned on several different dates, there should be a complete entry for each date on which the unit was burned.

The accomplishments should be submitted promptly to Salem Fire Operations by the 5th of each month for the prior month's activity. Right-of-way burning should be submitted as per the procedure identified above for units within the restricted area.

DETAILED INSTRUCTIONS FOR REPORTING SYSTEM CODING SHEET (FORM 1-4-1-501):

Instructions are included as pages 7-11 of Appendix 1.

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Part I - Unit Description and Number Assignment (Page 1 of Form 1-4-1-501):

A number needs to be obtained prior to burning a unit. The number will be assigned by the computer after the data is entered into the computer. The raw data is the information needed from a field office to begin a record for a specific area to be burned. The data may be entered on the form and mailed to Salem or entered directly on a CRT that has access to the computer program. Where teletype variety communications exist, data may be transmitted via those devices, separating each field by a comma per the instructions on the coding sheet. Teletype transmitted data will then be entered into the computer by Salem Fire Operations personnel. Forms that are mailed should be addressed to:

Department of Forestry  
Attn: Fire Operations Center  
2600 State Street  
Salem, OR 97310

Number Assignment:

Field offices that enter data directly into the computer via CRT will have the unit number displayed on the CRT after the data has been entered.

Field offices that submit data to Salem for entry into the computer will receive a printout of the data with the assigned unit number.

All offices should review the data as soon as possible. If any errors are found, correct Salem Fire Operations and provide the correct data. Salem personnel will then correct the data.

Part II - Planned Burns (Page 2 of Form 1-4-1-501)

On the day a unit is planned for burning, the information that needs to be reported is the unit number, planned ignition time, acres planned for burning and the tons planned for burning. The acres and tons can be more or less than those numbers entered in Part I; they are to be your best estimate of activity on the unit for the day.

When reporting by teletype, be sure to separate the data fields by a comma. When reporting by CRT, fill in the blanks on the screen. All data should be reported by 10:15 AM.

Do not plan right-of-way burns on a daily basis (See Form 1-4-1-502).

Field offices outside of the restricted area should not plan units on a daily basis. See "Frequency of Reporting" section, above.

When all planned burns have been received, a daily planned summary listing will be generated for distribution to field offices and DEQ.

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Part III - Accomplished Burns (Page 2 of Form 1-4-1-501)

On the day after a unit is burned, enter the data shown in Part III of Form 1-4-1-501.

When reporting by teletype, be sure to separate the data fields by a comma. Also, when no burning occurred on a planned unit, only the unit number and two zeroes are required (all separated by commas).

When reporting by CRT, fill in the blanks on the screen. Enter only the unit number and a zero in the tons entry field and a zero in the acres data field.

The accomplished acres and tons may be more or less than the number entered in either Part I or Part II depending upon the fuel and weather conditions on the site. Report the actual tonnage that was estimated to be consumed as well as the actual acreage that was burned. Include data from any slopover when the fire gets out of the unit.

All data should be reported by 10:15 AM.

Do not accomplish right-of-way burns on a daily basis using the above procedure (See and use Form 1-4-1-502).

Field offices outside of the restricted area should not report units on a daily basis via teletype or CRT. See "Frequency of Reporting" section, above.

All planned burns must be accomplished the following day or on the next business day if the Fire Operations Center is not operational on a weekend or holiday. The data fields must be completed if there was burning or "zeroed" if there was no burning.

When reporting by teletype, units burned during weekends or holidays when the Fire Operations Center is closed should be reported in groups by the date burning was done on the next workday when the Center is open.





INSTRUCTIONS FOR  
DATA FORM 1-4-1-501 FOR SMOKE MANAGEMENT  
GENERAL REQUIREMENTS

PART I: INITIAL ENTRY FOR UNIT VERIFICATION AND NUMBER ASSIGNMENT.

The following information shall be entered into the computer prior to burning to get the necessary unit number for planning and resulting burns.

1. District or Forest Identifier: A three-digit code as shown in the table on page 9.

2. County Number

01 Baker	10 Douglas	19 Lake	28 Sherman
02 Benton	11 Gilliam	20 Lane	29 Tillamook
03 Clackamas	12 Grant	21 Lincoln	30 Umatilla
04 Clatsop	13 Harney	22 Linn	31 Union
05 Columbia	14 Hood River	23 Malheur	32 Wallowa
06 Coos	15 Jackson	24 Marion	33 Wasco
07 Crook	16 Jefferson	25 Morrow	34 Washington
08 Curry	17 Josephine	26 Multnomah	35 Wheeler
09 Deschutes	18 Klamath	27 Polk	36 Yamhill

3. Legal location by township, range and section. Separate each element by a dash. Do not include the letters "T", "R", "S".

Example: 10S-10W-33 Not T10S-R10W-S33

4. Elevation of Burn: Height of burn above sea level in feet, using average elevation to the nearest 100 feet.
5. Distance from nearest designated area boundary: Rounded to nearest mile. If within DA, use 0. If more then 60 miles, enter "60".
6. Type of Burn: Broadcast - B Piles - P
7. Priority of burn based on rating form:

High Priority - H

Low Priority - L

Right-of-way - R

NOTE: High classes are not used on units south of the main stem and North Fork of the Umpqua River. High classes are not used on units on the Diamond Lake and North Umpqua Ranger Districts.

8. Ownership Type:

USFS - blank Private - P Federal (except USFS) - F  
State, County, Municipal - S

9. Acres in unit: If less than 1, report 1.

DATA FORM FOR SMOKE MANAGEMENT  
GENERAL REQUIREMENTS

10. TOTAL fuel loading (tons):

The total fuel loading on the unit should be reported in this entry, not just consumable tons. Units with less than 5 tons should not be entered.

11. Total Loading of 3"+ fuels (Tons/acre)

12. Method for determining fuel loading:

Transect - T    PNW Photo Series - S    Local Photo Series - L  
Other Methods - M

NOTE: Use of "M" requires local documentation and record-keeping of the method used.

13. Average duff depth to the nearest inch.

14. Predominant Species of fuel:

Softwood - S            Hardwood - H    Brush - B

15. Minimum harvest log diameter:

<u>Harvest Spec.</u>	<u>Entry Code</u>
4 inches by 4 feet	"4"
6 inches by 6 feet	"6"
8 inches by 10 feet	"8"
Other	"9"
Not Applicable	"1"

PART II: PLANNED BURN

The following information shall be entered into the computer on the day that the unit is planned for burning for all districts and forests in the restricted area. Outside of the restricted area, see Part III for reporting requirements.

1. Unit Number: As previously assigned by the computer. Do not plan right-of-way units on a daily basis; see Form 1-4-1-502 for right-of-way procedures.
2. District or forest identifier (as used in Part I).
3. Estimated ignition time: use 24-hour clock and local time.
4. Number of acres that are planned to be burned.
5. Tons that are planned to be burned.

DATA FORM FOR SMOKE MANAGEMENT  
GENERAL REQUIREMENTS

PART III: ACCOMPLISHED BURN

The following information shall be entered into the computer on the day after the burning occurred for all districts and forests in the restricted area. Outside of the restricted area, districts and forests should keep daily records of the following information and submit the information to Salem Communications by the fifth of each month for the prior month's activity.

1. Unit number as previously assigned by the computer. Do not result right-of-way units into the computer on a daily basis; see Form 1-4-1-502 for right-of-way procedures.
2. District or Forest identifier (as used in Part I and II).
3. Actual ignition time: use 24-hour clock and local time.
4. Ignition Duration: The total minutes from time ignition first started to the time ignition stopped, including any breaks in firing.  
Example: if ignition started at 0800; then stopped at 0830; then resumed at 0930 and was completed at 1100, the duration would be 180 minutes.
5. Ignition Method:  
Aerial - A      Hand - H      Combination of Aerial and Hand - C  
Other Method - M  
NOTE: If one method accounts for 75% or more of the acres ignited, enter that method, not "C".
6. Number of acres actually burned.  
NOTE: This can be more or less than the number planned. Include slop-over acres in the total.
7. Live fuel present (Tons/acre):

<u>Tons/Acre</u>	<u>Entry Code</u>
0 to 1/3	"1"
1/3 to 2	"2"
>2	"3"

8. For piles burned simultaneously on broadcast units enter the volume, in cubic yards, of material burned. Enter "0" if there are none.
9. The number of tons actually burned. This can be more or less than the entries made in Part I and II. On broadcast burns, include the piled tonnage if the piles are burned.

DATA FORM FOR SMOKE MANAGEMENT  
GENERAL REQUIREMENTS

10. Weather station used for consumption estimates:

RAWS - enter the station name.  
Fire Weather Station - enter the station name.  
National Weather Service Office - enter NWS office name.  
On site - enter the word "unit".

NOTE: If a station name exceeds ten characters, enter only the first ten characters. Delete spaces when entering the name.

11. 1000-hr fuel moisture: Example 32%, enter 32.

12. How was 1000-hr fuel moisture determined:

<u>Method</u>	<u>Entry Code</u>
NFDR-th	"N"
ADJ-th	"A"
Measured:	
Weighed	"W"
Moisture Meter	"M"

13. Unit weather at the time of ignition. Enter temperature (°F), humidity (%), surface wind direction and wind speed (mph). For wind direction, use 8 points of the compass as shown in the table. Separate all entries by a dash.

Wind Direction Table

<u>Code</u>	<u>Direction</u>	<u>Code</u>	<u>Direction</u>
1	NE	5	SW
2	E	6	W
3	SE	7	NW
4	S	8	N

NOTE: "Direction" is the direction from which the wind is coming.

Example entry: Temp - 72, Humidity - 50%, NW wind at 5 mph should be entered as 72-50-7-5.

14. Months of summer drying since harvest:

<u>Months</u>	<u>Entry Code</u>
< = 3 months	"3"
>3 months	"4"

SMOKE MANAGEMENT DISTRICT ID NUMBERS

521	Astoria	97	Northeast	16	Wallowa-Whitman NF
69	Clackamas-Marion		971 La Grande		161 Baker
	691 Molalla		972 Pendleton		162 Wallowa Valley
	692 Santiam		973 Wallowa		165 Eagle Cap
72	Coos	07	Ochoco NF		166 La Grande
	721 Bridge		071 Big Summit		167 Pine
	722 Coos Bay		072 Paulina		169 Unity
	723 Gold Beach		073 Prineville	95	West Central
090	Crater Lake N.P.		074 Snow Mountain		951 Fossil
01	Deschutes NF	10	Rogue River NF		952 John Day
	011 Bend		101 Applegate		953 Monument
	012 Crescent		102 Ashland		954 Prineville
	013 Fort Rock		103 Butte Falls		955 Sisters
	015 Sisters		106 Prospect		956 The Dalles
73	Douglas	11	Siskiyou NF	68	Western Lane
	731 North Douglas		111 Chetco		681 Florence
	732 South Douglas		112 Galice		682 Reedsport
671	Eastern Lane		113 Gold Beach	65	West Oregon
53	Forest Grove		114 Illinois Valley		651 Philomath
	531 Columbia City		115 Powers		652 Dallas
	532 Forest Grove	12	Siuslaw NF		653 Toledo
02	Fremont NF		121 Alsea	18	Willamette NF
	021 Bly		122 Hebo		181 Blue River
	022 Lakeview		123 Mapleton		183 Sweet Home
	023 Paisley		124 Waldport		184 Detroit
	024 Silver Lake	71	Southwest		185 Rigdon
98	Klamath-Lake		711 Central Point		186 Lowell
	981 Klamath Falls		712 Grants Pass		187 McKenzie
	982 Lakeview	511	Tillamook		188 Oakridge
66	Linn	14	Umatilla NF	20	Winema NF
	661 Sweet Home		141 Dale		201 Chemult
	622 Santiam		142 Heppner		202 Chiloquin
04	Malheur NF		144 Ukiah		203 Klamath
	041 Bear Valley		146 Walla Walla		
	042 Burns	15	Umpqua NF		
	043 Long Creek		151 Cottage Grove		
	044 Prairie City		152 Tiller		
06	Mt. Hood NF		153 Diamond Lake		
	061 Barlow		156 North Umpqua		
	062 Bear Springs	991	Walker Range		
	063 Clackamas				
	064 Columbia Gorge				
	065 Estacada				
	066 Hood River				
	069 Zig Zag				



## GENERAL INSTRUCTIONS

1. This form is to be used for the reporting of right-of-way burn accomplishments only. All other accomplishments should be reported using the format procedures outlined on form 1-4-1-501.
2. Right-of-way units will not be planned on a daily basis. They will not be reported to Salem on a daily basis.
3. On the 1st day of each month all field units should submit completed forms for the previous month to their appropriate state district headquarters or USFS forest supervisor's offices. Field units should not send completed forms directly to Salem.
4. By the 5th of the month the respective headquarters offices should: (1) ensure that all field units have reported, and (2) mail the completed forms to Salem Communications. It is the responsibility of the respective headquarters to promptly submit all completed forms each month.
5. If no right-of-way burning was accomplished during the month for the entire national forest or state district this fact can be sent via teletype or telephone to Salem Communications by the respective headquarters.
6. After all information is received by Salem Communications each month, Salem will enter the data onto the computer file.
7. This reporting for right-of-way units in no way affects when burning may or may not occur. Weather forecasts and advisories should be reviewed daily to determine if any restrictions to burning are in effect.
8. Each day a unit is burned the appropriate data should be entered on form 1-1-3-420 as detailed below. If, for example, a unit was partially burned on 5 different days, there should be 5 entries on the form.

COLUMN

1

DATA

UNIT NUMBER: The number as assigned by the computer should be entered each day burning is accomplished.

2

DATE BURNED: Enter the date burned as the month, day and year, i.e. a unit burned on April 19, 1983 should be entered as "4-19-83".

3

ACTUAL IGNITION TIME: Enter the time when ignition was started. DO NOT enter the time that ignition was completed. Use a 24 hour clock, i.e. a 6 A.M. ignition would be 0600; a 6 P.M. ignition would be 1800.

4

ACTUAL TONS BURNED: Enter the estimate of the tonnage that was actually consumed for the date in the unit.

SMOKE INTRUSION REPORT  
Form 1-4-1-301

Definition

A smoke intrusion occurs when any visible or monitored smoke from prescribed forest burning enters a Designated Area or other area sensitive to smoke at ground level.

Background

An assessment of burning's impact on air quality is aided by a knowledge of when smoke entered a Designated Area. Smoke intrusions vary greatly in duration, concentration and effect on a Designated Area. Smoke accumulating at the surface and remaining overnight adversely affects air quality more than if smoke drifts through and clears in an hour or two. The State Forester is required by statute and agreement with DEQ to "analyze and evaluate state-wide burning operations under the plan." Such analysis includes intrusion analyses.

Purpose

This intrusion report provides a descriptive record of smoke intrusions as required by administrative rule. Reports are annually summarized in the Smoke Management Annual Report compiled by the Smoke Management Section.

Responsibilities

Field units, i.e., State Districts or National Forests, are responsible for monitoring smoke from burning activity and reporting intrusions to the Smoke Management Coordinator through the use of Form 1-4-1-301.

The Salem Smoke Management Coordinator is responsible for:

1. Combining field reports into one intrusion summary when more than one field unit is involved.
2. Liaison with Department of Environmental Quality to develop descriptive reports of smoke intrusions.
3. Preparing an annual summary of intrusions.

When to report by telephone:

Any intrusion is to be reported by telephone as soon as possible but not later than noon of the next workday after the intrusion. If 7-day operations are not in progress at Salem, then telephone by noon on the first workday after the incident. If the Smoke Management Coordinator is not available, then the duty forecaster for smoke management should be notified.

Protection  
6/86 - P.N. No.

DRAFT DIRECTIVE  
1-4-1-601 p. 27  
Appendix 2 p. 2

SMOKE INTRUSION REPORT  
Form 1-4-1-301

When to report by mail:

A completed Smoke Intrusion Report Form 1-4-1-301 shall be submitted by the appropriate field office to the Smoke Management Coordinator within two working days of the intrusion. Sections H through L of the form will be completed by the duty forecaster and returned to the field office in two working days.

Field offices observing smoke entering a Designated Area from burn units outside of their administrative area should also submit telephone and written reports as outlined above. In addition, they should notify the field office that has administrative responsibility for the problem unit(s) of the fact that smoke is entering or about to enter a Designated Area.

It is helpful and desirable that field offices report potential intrusions as soon it appears that smoke may enter a Designated Area. This allows the Smoke Management Coordinator or duty forecaster to obtain monitoring data prior to and during the incident. It also facilitates public relations work resulting from an incident.

SMOKE INTRUSION REPORT

Sections A and B must be telephoned to Salem, 378-2153, no later than noon the next workday after the intrusion. Every attempt should be made to notify Salem as soon as it is evident that smoke will impact a designated area. A completed form should be submitted to Salem within two working days of the intrusion.

A. SMOKE ORIGIN:

<u>Unit Number(s)</u>	<u>District/Forest</u>	<u>Legal Descr.</u>	<u>Owner Class</u>	<u>Elev.</u>	<u>Acres</u>	<u>Tons</u>	<u>Ign Time</u>	<u>Date Burned</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

B. INTRUSION DESCRIPTION:

1. Designated Area Affected \_\_\_\_\_
2. Date \_\_\_\_\_ Time \_\_\_\_\_ Smoke entered area. Duration \_\_\_\_\_ hours.
3. Type: Main Plume \_\_\_\_\_ Residual Smoke \_\_\_\_\_ Drift Smoke \_\_\_\_\_
4. Describe Smoke Behavior (including distances and elevations of base of plumes) \_\_\_\_\_  
\_\_\_\_\_

C. FORECAST AND INSTRUCTIONS:

1. Forecast transport wind direction and speed at ignition time and for next 12 hours \_\_\_\_\_  
\_\_\_\_\_
2. Observed transport wind direction and speed at ignition time and for next 12 hours \_\_\_\_\_  
\_\_\_\_\_
3. Forecast surface wind direction and speed at ignition time and for next 12 hours (24 hours if residual smoke was a factor) \_\_\_\_\_  
\_\_\_\_\_
4. Observed surface wind direction and speed at ignition time and for next 12 (24) hours \_\_\_\_\_  
\_\_\_\_\_
5. Were significant changes in transport or surface wind conditions forecast \_\_\_\_\_ observed \_\_\_\_\_  
Describe any changes that occurred \_\_\_\_\_
6. What were general weather conditions during the burn period (include conditions at least 6 hours after ignition stopped). Give sky conditions, type and height of clouds, precipitation etc., be specific.  
\_\_\_\_\_
7. Was Salem consulted about observed weather that was different than forecast? \_\_\_\_\_  
\_\_\_\_\_
8. What were Smoke Management Instructions? Written and/or verbal \_\_\_\_\_  
\_\_\_\_\_

D. WHAT WERE THE FUEL MOISTURES AT IGNITION TIME:

1 hour \_\_\_\_\_ 10 hour \_\_\_\_\_ 100 hour \_\_\_\_\_ 1000 hour \_\_\_\_\_

E. OTHER VISIBILITY RESTRICTING SOURCES PRESENT:

Field Smoke \_\_\_\_\_ Resident Emissions \_\_\_\_\_ Ag Smoke \_\_\_\_\_ Wildfire Smoke (Fire's Name) \_\_\_\_\_  
Dust \_\_\_\_\_ Other Prescribed Fire Smoke \_\_\_\_\_ Other (Specify) \_\_\_\_\_ Unable to identify \_\_\_\_\_

SMOKE INTRUSION REPORT

F. EXPLAIN SPECIFICALLY THE CAUSE OF THE INTRUSION. Has the cause been the result of previous intrusions?

\_\_\_\_\_

\_\_\_\_\_

G. COMMENTS:

\_\_\_\_\_

\_\_\_\_\_

SECTION H THROUGH L TO BE COMPLETED BY SALEM FORECASTER:

H. INTRUSION INTENSITY (see directive tables):

1. Average DA prevailing visibility for 3 hours prior to start of intrusion \_\_\_\_\_ miles.
2. Lowest prevailing visibility during duration of intrusion \_\_\_\_\_ miles.
3. Average DA nephelometer for 3 hours prior to start of intrusion \_\_\_\_\_.
4. Highest nephelometer during duration of intrusion \_\_\_\_\_.
5. Classification based on visibility or nephelometer:

Light \_\_\_\_\_ Moderate \_\_\_\_\_ Heavy \_\_\_\_\_ Unknown or can't determine \_\_\_\_\_ No classification (due to other sources) \_\_\_\_\_

If moderate or heavy, the number of hours in those categories: Moderate \_\_\_\_\_ Heavy \_\_\_\_\_

I. OBSERVED MIXING DEPTH FROM NEAREST RAOB OR UPPER AIR SITE. (Identify any shear layers.) \_\_\_\_\_

\_\_\_\_\_

J. GENERAL SYNOPTIC CONDITIONS, BOTH LARGE AND SMALL SCALE. Be as specific as possible with feature locations.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

K. WERE FORECASTS AND INSTRUCTION ADEQUATE (Y/N) \_\_\_\_\_. Why \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

L. COMMENTS.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## INTRUSION DETERMINATION FROM VISIBILITY OBSERVATIONS

### Introduction

When no nephelometer data is available to determine the intensity of an intrusion, visibility data may be used as a substitute when such data is available from a reliable source. The standard observation procedure used by the National Weather Service as outlined in the Federal Meteorological Handbook No. 1 should be the minimum standard accepted as a reliable indicator of visibility. The observation procedure is outlined below and should especially be utilized by field units that have the potential of impacting Designated Areas where no airport data is available. Prevailing visibility is the observation that will be used as a surrogate for nephelometer data. Using the procedure outlined below to determine prevailing visibility and the visibility table in the Smoke Management Directive 1-4-1-601, a determination of intrusion intensities will be made.

### Observation Procedure

**Determination of Visibility:** Using all available visibility markers, determine the greatest distances that can be seen in all directions around the horizon circle. When the visibility is greater than the distance of the farthest markers, estimate the greatest distance you can see in each direction. Base this estimate on the appearance of the visibility markers. If the markers are visible with sharp outlines and little blurring of color, the visibility is much greater than the distance to the markers. If a marker can barely be seen and identified, the visibility is about the same as the distance to that marker.

**Determination of Prevailing Visibility:** After visibilities have been determined around the entire horizon circle, resolve them into a single value for reporting purposes. To do this, use either the greatest distance that can be seen throughout at least half the horizon circle, or if the visibility is varying rapidly during the time of the observation, use the average of all observed values. Prevailing visibility should be reported in miles.

**Determination of Sector Visibility:** When the visibility is not uniform in all directions, divide the horizon circle into sectors which have approximately the same visibility. Report the prevailing visibility which can be seen throughout at least half of the horizon circle.

See the next page for examples of the prevailing visibility that should be reported in different scenarios.

DRAFT DIRECTIVE  
1-4-1-601 p. 31  
Appendix 2 p. 6

EXAMPLES - Determining Prevailing Visibility (Prevailing Visibility indicated by asterisks and shading)																			
<table border="1"> <thead> <tr> <th colspan="2">Four Sectors</th> </tr> <tr> <th>Visibility (miles)</th> <th>Approximate Degrees</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>90</td> </tr> <tr> <td>2½*</td> <td>90</td> </tr> <tr> <td colspan="2"><hr/></td> </tr> <tr> <td>2</td> <td>90</td> </tr> <tr> <td>1½</td> <td>90</td> </tr> </tbody> </table>	Four Sectors		Visibility (miles)	Approximate Degrees	5	90	2½*	90	<hr/>		2	90	1½	90					
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### FOREST LAND BURNING PRIORITY RATING SYSTEM

The Forest Land Burning Priority Rating System (Priority Burning System) identifies units\* which require burning during the summer months to meet silvicultural and reforestation objectives. It provides a means for prioritizing units selected for summer burning into "high" or "low" categories.

The objective of the Priority Burning System is to more closely regulate forest land burning during the approximately 60 mid-summer days when field burning is being accomplished in the Willamette Valley. The system insures that only forest units which must be burned during the hotter, drier mid-summer period will be burned while field burning is taking place.

The area covered by the system is that part of western Oregon north of the North Fork and main stem of the Umpqua River, excluding the Diamond Lake and North Umpqua Ranger Districts of the Umpqua National Forest.

Rating forms for the Cascade and Coast Ranges were developed and field tested by two interagency-industry task force groups. The system is designed to identify those units which, because of the nature of the site, fuel and silvicultural requirements, must be burning during the hotter, drier mid-summer period.

The Priority Burning System is closely coordinated with the Department of Environmental Quality. The start and ending of the priority period\*\* will be determined by the Forester with the advice of the DEQ on field burning levels. The priority burning systems will not be in effect when field burning is stopped, or is at very low activity levels. Also, non-priority burning may be allowed in specified areas when the Forester determines that such burning will not impact the Willamette Valley.

Notification of the beginning, ending, and any areas exempt from the Priority Burning System will be included with daily smoke management instructions issued from Salem.

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\* Unit: A term used to describe a contiguous area of forest land with specific boundaries upon which some activity or activities will be conducted.

\*\* Priority Burning Period: It is a period of time when only "high priority" forest land units will be burned. The 60 days is an approximate span of time; the period will generally begin in mid-July when heavy field burning has begun and will end when conditions no longer permit this level of burning in September.

### FOREST LAND BURNING PRIORITY RATING SYSTEM

Certain special areas will be classed as high priority without use of the priority rating procedure. Such areas are characterized by special or unique management objectives which make use of a rating system impractical. Such units include:

- Vegetation management areas, such as huckleberry fields.
- Visual management areas which must be burned under very restrictive prescriptions.
- Special watershed areas requiring burning.
- Game habitat improvement burning.
- Campground development.
- Special research projects.
- Right-of-way burning which must be done during the summer.
- Prescribed under-burning.
- \*High elevation units.

---

\* High elevation units in the Cascades which may be burned with no risk of impact on designated areas will be considered high priority under the following circumstances.

- a. High elevation units must be at least 1000 feet in elevation above the designated area ceiling (designated area ceiling is 2500 feet). Thus, any unit must be at or near 3500 feet elevation to fall into this category.
- b. In no event will any unit burned in this category be less than 1000 feet above a stable layer above the designated area.
- c. There must be a sustained westerly air flow in the vicinity of the unit with no probability of a wind shift toward the designated area within 12 hours of ignition time.
- d. All units must be at least 40 miles from the designated area.
- e. All units must be cleared through the Smoke Management Coordinator prior to ignition.

## FOREST LAND BURNING PRIORITY RATING SYSTEM

### Instructions For Using Priority Rating Forms for Evaluating Forest Land Burning Units

The Preliminary Priority Burning Chart will be used for all units which are desirable to burn during the summer months. This chart is used to indicate the treatment objective for the site and whether burning is needed. If burning is needed, the season when burning objectives can best be met are identified. If summer burning is required or desirable, the appropriate Coast Range or Cascade Range Prioritizing Rating Form is used.

#### Using the Preliminary Priority Chart Form 1-4-1-503

Listed under "treatment objective" are seven of the most common treatment objectives. More than one treatment objective may be present for any single unit. Additional space is provided for treatment objectives not listed.

When treatment objectives have been identified, the "Burning Required?" column is used to indicate whether or not burning is required to meet the objective.

If the "Burning Required?" column is checked "yes", the "When Can Burning Best Be Accomplished" column is checked as to when burning should be accomplished to meet the treatment objectives. When "Summer" is checked, the Coast or Cascade Range form is to be used to further evaluate the unit.

The "Comments" column is available for any special considerations such as special objectives, pre-treatment efforts required or other factors.

#### Burning Priority Rating Form for the Cascade Range Form 1-4-1-505

This form is adapted for the westside of the Cascade Range north of the North Fork and mainstream of the Umpqua River.

The "Slope" column is used to evaluate the way the steepness of the terrain will affect fire behavior on the unit. Fire will spread and broadcast much more readily on steep slopes than on gentle slopes or flat ground. Points are assigned for each slope class.

The "Special Considerations" column includes a variety of factors which relate to the need to burn during the summer months or to the risk of down-canyon winds advecting smoke into the designated area.

The "Aspect" column is used to consider exposure as it affects drying of fuels and fire behavior. For example, south exposure units receive much more direct sunlight and will be dry enough to burn many more days than north slopes.

The "Silvicultural Consideration" column indicates things such as pre-treatment requirements before burning, availability of essential planting stock or cost and potential for success of alternative treatments.

### FOREST LAND BURNING PRIORITY RATING SYSTEM

The "Soil Consideration" relates to soil which may be damaged if too dry, or too moist soils which preclude burning except during mid-summer drought periods. Also included are areas where excessive soil damage will result from mechanical piling activity.

The points are totaled. Any unit scoring 50 points or more is a high priority unit which may be burned during the Priority Burning Period. Units with less than 50 points will not be burned while the priority burning restriction is in effect.

#### Burning Priority Rating Form For The Coast Range Form 1-4-1-504

The "Plant Community" column relates to the plant community on the site and the difficulty of reforesting the site with desirable species. For example, the Salmonberry-Thimbleberry plant community is extremely difficult to reforest without burning or repeated chemical applications. The most difficult plant community to reforest receives the highest point values.

The "Fuels Overstory" relates to the fuel type that will remain after logging or treatment. Fuel types which will burn readily are rated lower than the Alder-Salmonberry combinations that are difficult to burn under ideal conditions.

The "Location" column relates primarily to marine air influence on drying and the probability of summer fog intrusions. Point values increase as the coastline is approached and in fog influx corridors.

The "Aspect" column uses the same consideration as the Cascade form. North slopes may be burned on much fewer days than south slopes.

The "Fuel Treatment" column relates to the difficulty and effectiveness of alternate treatments and the pre-treatment essential to achieving the burning objectives. Units requiring mass ignition with explosive fuses are given a high point score because it is essential to fire such units at the earliest burn day following installation of the ignition equipment. Such units normally fall into a high category for other reasons also.

As in the Cascades a score of 50 points or more is needed to place a unit in the priority burn category. Units with less than 50 points will not be burned during the Priority Burning Period.

PRELIMINARY PRIORITY BURNING CHART

This chart is to be used to indicate the treatment objective and whether or not burning is required to meet that objective. If burning is indicated, the period when that burning can best be accomplished will be indicated. Units which are checked for summer, spring-summer or summer-fall will then be evaluated on the Coast or Cascade Range Slash Burning Priority Status form for assignment of priority

UNIT: \_\_\_\_\_

TREATMENT OBJECTIVE	Burning Required?		When can burning best be accomplished?			UNIT _____ COMMENTS
	YES	NO	Spring	Summer	Fall	
1. Reduce duff layer, root mat or prepare seed bed						
2. Reduce or eliminate mechanical barrier to planting or seeding						
3. To control competing vegetation						
4. To eliminate or control shading for seeded or planted stock						
5. To control animal habitat, insect or disease						
6. To reduce overall fuel loading in the area to reduce fire hazard						
7. Reduce fire hazard in high risk areas						
8.						
9.						
10.						

UNIT \_\_\_\_\_

Priority Rating \_\_\_\_\_

## A SLASH BURNING PRIORITY RATING FORM FOR THE COASTAL RANGE - WESTERN OREGON

SCRAL COMMUNITY (UNDERSTORY)	FUELS (OVERSTORY)	LOCATION	ASPECT (DOMINANT)	FUEL TREATMENT NECESSARY TO ACHIEVE SUCCESSFUL BURNING
Salmonberry, thimble- berry, red huckle- berry, sword fern, vine maple <u>15</u>	Alder with a salmonberry salal undercover or a brush dominant site or predominately hemlock stand <u>15</u>	Strong marine influence of coastal strip up to 10 miles inland generally and 15 miles in fog influx* cor- ridors or areas west of the coast range where the fog persists late in the day. <u>15</u>	NORTH NE NW <u>20</u>	Unit to be treated with dissicant or herbicide or hand slashed to meet vegetation control objec- tive, and/or unit must be burned during dry period to reduce competing veg- etation <u>18</u>
Salal, bracken fern, ocean spray, vine maple <u>8</u>	Spruce/hemlock or alder with 10-30% fir <u>12</u>	West of summit of the Coast Range <u>8</u>	E SE <u>8</u>	Unit can be mechanically bunched or slashed, or dessicant or herbicide applied to produce burn which will reduce compet- ing vegetation. <u>12</u>
	Second growth fir and alder. Fir is 30% or more of the stand. <u>10</u>	East of the summit of the Coast Range <u>6</u>	SW W <u>6</u>	Unit has some hand slashing. No dessicant or herbicide used. Sufficient heavy slashing present to carry broadcast fire. <u>6</u>
Sword fern, Oregon oxalis <u>4</u>	Second growth or mature fir stand. 50% or more of stand is fir <u>4</u>	Valley fringe type <u>4</u>	SOUTH <u>4</u>	Burning will meet the veg- etation control objective with little or no fuel treatment <u>4</u>

Point system:    50+    High  
                  35-50    Medium  
                  Under 35    Low

\*Fog influx corridors are areas where marine air flows through a drainage into the Valley--included are the Nestucca, Salmon, Siuslaw Yaquina, Alsea, Columbia and Umpqua Rivers.



## ESTIMATING TONS OF FUEL CONSUMED IN PRESCRIBED BURNS

### Quantification of Fuel Loading

The Photo Series for Quantifying Residue\* provides reasonable means for estimating the tons of fuel that may be consumed by a prescribed burn. This publication contains six series of photographs displaying different forest residue loading levels by size class, for areas of like timber types and cutting practice.

Information with each photo includes measured weights, volumes and other residue data, information about the timber stand and harvest and thinning actions and fuel ratings. These photo series provided a fast and easy-to-use means for quantifying existing residues. An evaluation of the portion of each size class of fuel that will remain after burning will provide a reasonable estimate of the fuel which will be consumed by fire when fuel moisture conditions are known. It must be emphasized that this system, while not perfect, will provide reasonable estimates if used consistently. Experience in its use will increase the ease of using it and improve the accuracy of estimates.

Procedures for use of the photo series for estimating fuel tonnage which will be, or has been, consumed by fire follows:

1. Select the loading rank, forest type, forest size class and cutting practice as explained on pages 7 and 8 of the photo series. Selection of the loading rank may best be done by looking at the photo series after selecting the other three characteristics.

Example: Douglas Fir FDO type, size class 4 (20 inch dbh), clear cut (CC) will identify the series of photos from which individual photos can be selected which are most representative of the slash unit being measured.

2. When the representative photo(s) is(are) selected, the data sheets for that fuel loading can be used to make the fuels estimate.

Using 7-Df-4-CC (page 22) as an example:

Fuel Size Class	Tons/Acre
0.25 - 1.0	4.9
1.1 - 3.0	11.3
3.1 - 9.0	22.0
9.1 - 20.0	13.9
20.1 +	45.0

\* USDA Forest Service General Technical Report PNW 51, 1976. Photo Series for Quantifying Forest Residues in coastal Douglas-fir - Hemlock type and the coastal Douglas-fir - hardwood type. Also, Technical Report PNW 52, 1976 (same title) for Ponderosa pine types, Ponderosa pine and associated species type and Lodgepole pine type.

Note, for example, that if the observed 1.1 - 3.0 inch loading was better represented by the photo on page 24, then 5.9 tons/acre (see page 25) would be a part of the ensuing tonnage calculations instead of the 11.3 tons/acre listed above.

Examination of units before and after burning will increase the accuracy of estimating the percentage of each fuel type that will be consumed.

The photo series is one way of determining fuel loading. A second method, the basis upon which the photo series was developed, is actual field sampling of proposed units. It is recommended that pre- and post-burn sampling be done to get a feel for consumption estimates under different moisture conditions.

The procedures for inventorying downed woody material are provided in two U. S. Forest Service technical reports published by the Intermountain Forest and Range Experiment Station in Ogden, Utah. The "Handbook for Inventorying Downed Woody Material" by James K. Brown (USDA General Technical Report INT-16, 1974) and the "Graphic Aids for Field Calculation of Dead, Downed Forest Fuels" by Hal E. Anderson (USDA General Technical Report INT-45, August 1978) are the reference documents to be followed when doing a planar intersect sample.

The intent in using the photo series or by performing an actual transect is to provide consistency in the quantification of fuel loading.

#### Calculation of Woody Fuel Consumption

The calculation of woody fuel consumption should utilize the graph shown on page 4. The graph was taken from the USFS research report, "Predicting Fuel Consumption by Fire Stages to Reduce Smoke from Slash Fires" by Roger Ottmar.

The graph provides an estimate of the large (3" +) fuel consumption as a function of the 1000-hr fuel moisture. Three alternatives are provided to determine the 1000-hr fuel moisture. The moisture can be measured (either by weighing or moisture meter); the NFDR-th value can be utilized; or the ADJ-th can be used. The method for determining as well as the moisture value and weather station are reported on the coding form and when entering data into the computer.

For fuels smaller than 3", total consumption should be assumed when calculating the total woody fuel consumption.

A second method for calculating woody fuel consumption is by doing a post-burn transect.

### Calculation of Duff Consumption

In addition to calculating the woody fuel consumption, the duff consumption needs to be calculated. Again, using the 1000-hr fuel moisture, determine the fuel diameter reduction shown on the graph on page 4. Using the fuel diameter reduction, enter the graph on page 5 to determine the duff consumption in inches, interpolating as necessary. Multiply the inches of duff consumption by 18.7 to determine the tons/acre of duff consumed.

The graph on page 5 was also taken from Ottmar's USFS research report that was referenced above.

### Total Fuel Consumption

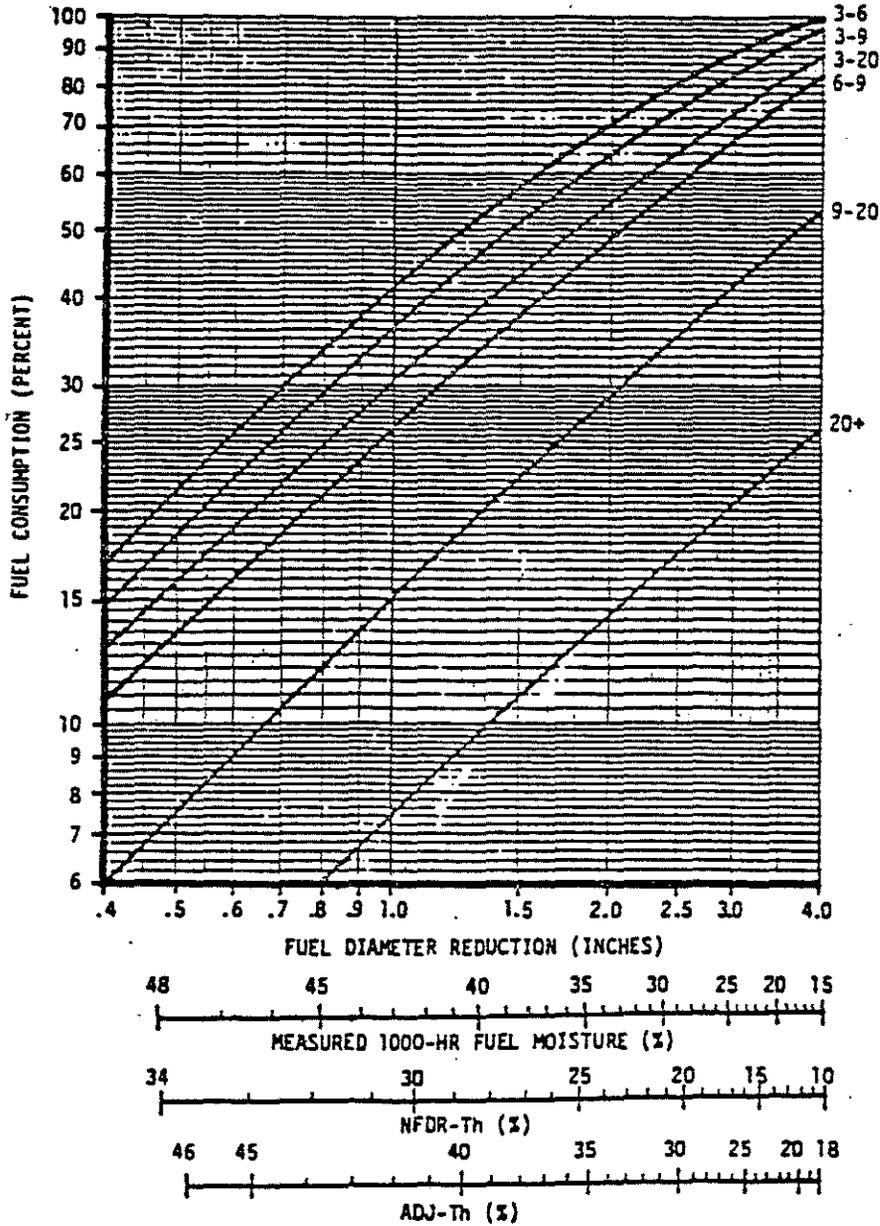
The total fuel consumption is the sum of the woody fuel consumption, both large and small fuel, and the duff consumption. The total, in tons/acre, should be multiplied by the number of acres that are burned (or are expected to be burned) when planning and accomplishing units.

### Pile Burning Fuel Consumption

When piles are being burned, estimate the volume of material in the piles and then, using the procedures provided in the reference documents, determine the tons of material in the piles.

For reporting purposes, assume total consumption of the piles when planning and accomplishing units. Even when piles are part of a broadcast burn and total consumption of fuels from the broadcast operation is not expected, total consumption of the piles burned should be reported.

5243E/0002J



02-28-83

Figure 3.--Consumption of large fuel (greater than 3 inches in diameter) estimated from reduction of fuel diameter, measured 1000-hour fuel moisture, NFDR-Th, or ADJ-Th. Based on results of prescribed fires in Douglas-fir/hemlock clearcut and underburn units. Incomplete consumption of small fuels (caused by high humidity or precipitation, for example) causes less large fuel to be consumed than predicted. Sustained wind causes a greater amount of large fuel to be consumed than predicted.

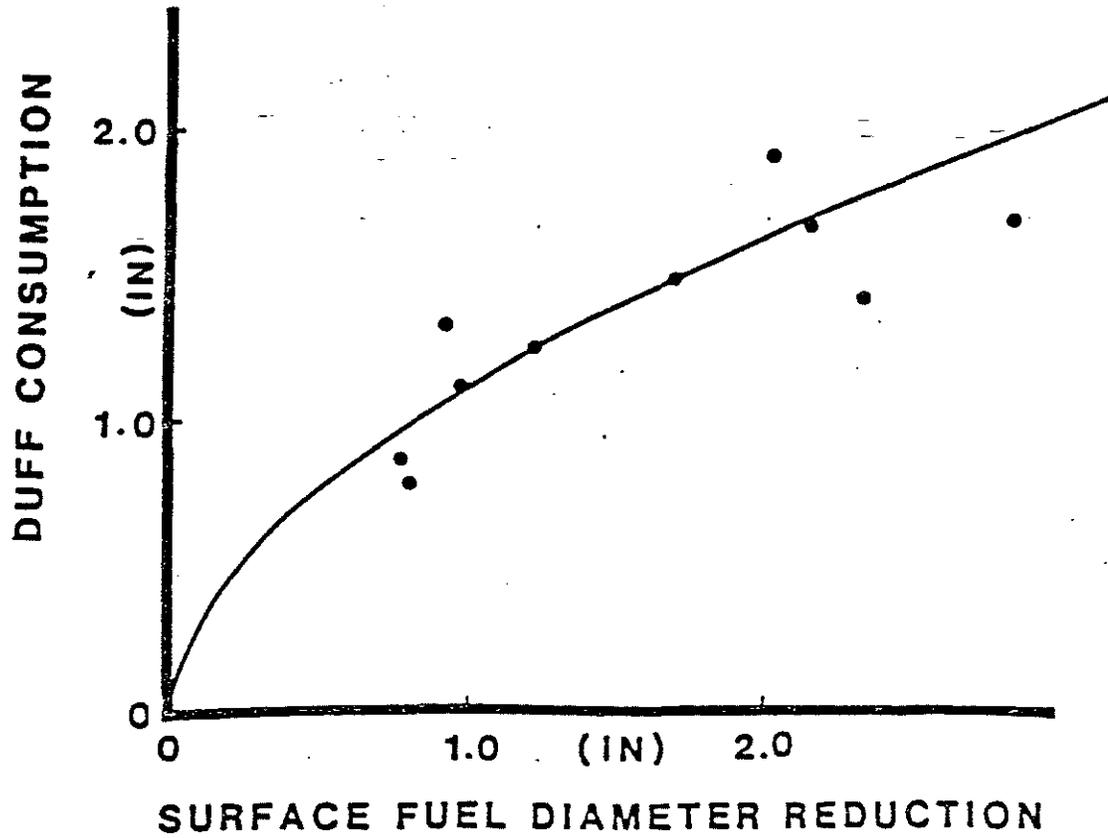


Figure 6.--Duff consumption with regression dependent on surface fuel diameter reduction. Analysis limited to fuel-dependent duff consumption.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 1

### OPERATIONAL DETAILS FOR THE OREGON SMOKE MANAGEMENT PLAN

**PURPOSE.** This directive provides guidelines and constraints necessary to the successful accomplishment of forest land management objectives and to the maintenance of a satisfactory atmospheric environment in designated areas.

**SITUATION.** Prescribed burning to reduce hazardous fuel accumulations and prepare logged or brushy areas for reforestation is applied on an average of 111,000\* acres of Oregon's forest land each year. The burning is done on approximately 3,400 separate parcels (units) of forest land.

Some units are burned for hazard reduction only; however, most burning is done to reduce hazard and to improve the chances for successful reforestation of logged sites and brush fields. A reduction in the use of herbicides has increased the importance of fire as a silvicultural tool, particularly in the highly productive forest lands in western Oregon where brush competition can severely reduce the chances for successful reforestation on many sites.

Along with the recognition of the critical role fire has in the successful management of Douglas fir forests has come a critical awareness of the problems smoke from these fires can cause for residents of the state. This awareness has resulted in the development of the Oregon Smoke Management Plan. The original plan for managing smoke from forest lands was first developed by the Department of Forestry in coordination with other forest land management agencies and the forest industry. It was later made into law by the Oregon Legislature.

The Smoke Management Plan consists of the original plan (Directive 1-1-3-410) as defined by Administrative Rule and refinements developed by the Department of Forestry as new knowledge and skills have developed in the science of predicting atmospheric conditions relative to smoke movement.

**AUTHORITY.** Substantial authority is granted to the Forester by ORS 477.515 to develop a plan for the management of smoke produced by forest land burning. This statute provides that the Department of Forestry and the Department of Environmental Quality shall approve a plan for managing smoke in areas they will designate. The statute also specifies a variety of control measures the Forester may use to administer the plan.

ORS 477.515 also states that the Smoke Management Plan shall be developed by the State Forestry Department in cooperation with federal and state agencies, landowners and organizations that will be affected by the plan. The plan is filed with the Secretary of State and is promulgated as Administrative Rule OAR 629-43-043. The State Forester has administrative authority to develop operating policies, procedures and practices to meet the objectives of the plan.

**OBJECTIVE.** The objective of the Smoke Management Program is to keep smoke resulting from burning on forest lands from being carried to, or accumulating in designated areas, or accumulating in other areas sensitive to smoke; and to provide maximum opportunity for essential forest land burning consistent with this objective.

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\*This is a running average for the five year period ending in 1980.

OPERATIONAL DETAILS FOR THE OREGON  
SMOKE MANAGEMENT PLAN

POLICY. It is the policy of the Forester to manage prescribed burning on forest land with concern for all aspects of the environment and with particular consideration for the need for continuous forest production on Oregon's forest lands. It is also the policy of the Forester that the Smoke Management Plan, directives and guidelines issued relative to the plan be strictly complied with.

STANDARDS.

The Oregon Smoke Management Plan (Directive 1-1-3-410) provides a specific legal framework for the administration of the forest smoke management program for Oregon.

The State Forester is responsible for the coordination and control of the Oregon Smoke Management System. The plan applies to western Oregon. It is administered with full interagency cooperation with the U.S. Forest Service, Bureau of Land Management, Bureau of Indian Affairs, the Department of Environmental Quality and private forest industry.

The plan instructs each Field Administrator to maintain a satisfactory atmospheric environment in designated areas. The plan requires the Forester and the Field Administrator to continually monitor weather factors, advisories and air quality conditions in designated areas in conducting the burning program.

The plan establishes a set of limitations applicable to specified burning and mixing conditions. These limitations relate to tonnage of fuel per 150,000 acres which, ideally, may be burned under various sets of mixing conditions. Experience has proven these standards are adequate to protect designated areas only under ideal conditions. Frequently, more specific restrictions must be applied to meet air quality objectives.

The various standards used in the administration of the Smoke Management Plan follow:

A. Weather Forecasts

The Salem, Portland and Medford Fire Weather Offices provide twice daily smoke management forecasts. Each forecast provides a general discussion of meteorological conditions that influence air movement and atmospheric mixing conditions which will affect smoke movement and dispersion in the atmosphere.

Specific weather predictions are given for climatic zones within the area. A section of the forecast is devoted to the smoke mixing and dispersion characteristics of the atmosphere within the forecast area. This is determined by the stability of the air mass and the speed and direction of transport winds. Sections of the forecast provide information relative to burning conditions as well as air movement.

An outlook for the day following the forecast period is provided. The period of time covered by the outlook will depend upon the weather influences involved at any given time. Burning will be conducted in accordance with current forecast information.

OPERATIONAL DETAILS FOR THE OREGON  
SMOKE MANAGEMENT PLAN

B. Smoke Management Advisory

Smoke Management Advisories will be issued by the Salem Smoke Management Section during periods when weather is favorable for significant amounts of burning. The advisories provide constraints on burning in areas where the basic Smoke Management Plan may be inadequate to protect Designated Areas.

The advisories are based upon an analysis of the atmospheric conditions affecting smoke transport and dispersion and of the air quality conditions in designated areas which might be affected by forest land burning.

The advisories will be issued immediately after the Portland, Salem and Medford weather forecasts, usually at 8:30 am and 4:00 pm. The morning advisory will regulate the current day's burning. The afternoon advisory will state the next day's expected constraints, and is primarily to assist field units in planning.

Field units planning early morning ignitions (prior to 8:30 am) should use the prior afternoon's advisory for smoke management considerations. Ignitions planned after 8:30 am should adhere to the current morning's advisory.

Field Administrators are encouraged to discuss plans for early morning or night time ignitions with the Smoke Management Coordinator.

A smoke management "Hot Line" is in operation in the Salem Fire Weather Forecast Office. This line provides recorded weather information to any caller at any time. Recorded weather information is updated as follows:

1. During the period when the Priority Burning System is in effect, the previous day's 3:00 PM forecast will be updated at 6:30 AM.
2. At 8:00 AM and 3:00 PM the most current forecast will be recorded.

This information can be obtained by calling 378-2800.

C. Priority Burning System (See Appendix 3)

The Forest Land Burning Priority Rating System (Priority Burning System), was initiated to reduce the amount of forest land burning during the time when the maximum acreage of grass seed fields are being burned in the Willamette Valley. There are approximately 60 days during mid-summer when field burning has been given a high priority for use of the air shed in the valley for smoke dispersal. The Priority Burning System was developed by the Department of Forestry in coordination with the Department of Environmental Quality and with the cooperation of public and private forest land managers.

The Priority Burning System limits forest land burning during the 60-day period to units which must be burned during that time to meet the burning objectives. Only units with a high priority rating will be burned when the Priority Burning System is in effect. The Forester will provide notice to all Field Administrators when the Priority Burning System is initiated and rescinded.

### OPERATIONAL DETAILS FOR THE OREGON SMOKE MANAGEMENT PLAN

The priority burning period is established by the Department of Forestry upon the recommendation of the Department of Environmental Quality. The exact period varies from year to year and may extend for more or less than 60 days.

The procedures for rating and prioritizing burn unit is included in Appendix 3 of this directive. These procedures will be used on all units which may be burned during the summer months.

#### D. Air Stagnation Advisories

Air stagnation advisories will be issued by the Weather Service Forecast Office in Portland when atmospheric conditions are such that the potential exists for air pollutants to accumulate in designated areas for an extended period. During such times smoke and other pollutant sources within the designated area will create substantial air quality deterioration without the addition of smoke from outside sources. This condition is recognized in the administration of the Smoke Management Plan.

Smoke management advisories issued during an Air Stagnation Advisory will limit forest land burning to units which will contribute no smoke to a designated area covered by an Air Stagnation Advisory or an Air Pollution Alert. Burning during such periods will be closely controlled.

#### E. Measurement of Fuel Tonnage

The correct estimation of fuel tons that will be consumed by a burn is very important to the development and improvement of the smoke management program. It is essential that a reasonably accurate estimate of tons of fuel that will be consumed by a fire be reported in the burning plan.

The publication "Photo Series For Quantifying Forest Residues" will be used for making fuel tonnage estimates. Instructions for the use of this publication in estimating tonnage are included in Appendix 4.

A publication has been developed for western Oregon and eastern Oregon forest types.

#### F. Reporting

Three basic information items are essential to the administration of the burning program. These items are: (1) unit descriptions, (2) planned burns, and (3) accomplished burns. Additional information is needed to provide data for analysis, reporting and evaluation of the program procedures. Reporting will be accomplished in accordance with Appendix 1, Detailed Instructions for the Oregon Smoke Management Reporting System.

#### RESPONSIBILITY.

- A. State Forester. The State Forester is responsible for the coordination of the Smoke Management Plan and the Operating Details between the National Weather Service, United States Forest Service, Bureau of Land Management, Oregon Forest Protection Association, Department of Environmental Quality, and any regional air quality

OPERATIONAL DETAILS FOR THE OREGON  
SMOKE MANAGEMENT PLAN

authorities. In addition, the State Forester, through the Forest Protection Division, has the responsibility to issue additional restrictions on prescribed burning in situations where the air quality of the entire state or any part thereof is, or would likely become, adversely affected by smoke.

- B. Forest Protection Division - Fire Operations Section. The Fire Operations Section is directly responsible for providing weather forecasting services for smoke management purposes.

Burning advisories will be issued in concurrence with weather forecasts and in coordination with the Department of Environmental Quality (DEQ) when the priority burning restriction is in effect or during air pollution alerts. Burning advisories will be written in clear and concise terms. The Operations Section will provide more specific information when requested by telephone.

The Operations Section will monitor the burning program currently. Monitoring will be intensified on marginal days and will involve aircraft observation and telephone calls to the districts relative to local conditions.

The Operations Section will work with the areas and districts in identifying training needs and in developing training packages.

Operations Section staff will provide assistance on the ground wherever needed. They will maintain a close liaison with field operations through the Smoke Management Meteorologist and normal staff-line relationships.

The Operations Section will maintain a smoke management records system. They will produce an annual summary of burning and smoke management activities. They will also provide available data to meet the immediate needs of staff and line personnel upon request.

- C. Area Directors and District Foresters. Each Field Administrator issuing burning permits under the Smoke Management Plan will manage prescribed burning on forest land with respect to other aspects of the environment in order to maintain a satisfactory atmospheric condition in designated areas. This effort will also be applied to special situations where local conditions warrant in areas not defined as designated areas but which are sensitive to smoke. Accomplishment will involve a consideration of weather forecasts, burning advisories, acreages involved, amounts of material to be burned, evaluation of potential smoke column vent height, direction and speed of smoke drift, residual smoke, mixing characteristics of the atmosphere, and distance from the designated area of each burning operation.

Each Field Administrator will evaluate down-wind conditions prior to implementation of burning plans. Upon notice from the Forest Protection Division that air in the entire state or portion thereof is, or would likely become, adversely affected by smoke, the affected Field Administrator will terminate burning. Upon termination, any burning already under way will be completed; residual burning will be mopped up as soon as practical; and no additional burning will be attempted until approval has been received through the burning advisory.

OPERATIONAL DETAILS FOR THE OREGON  
SMOKE MANAGEMENT PLAN

Field Administrators will make daily reports covering burning operations. Monitoring of smoke behavior will be intensified on marginal days. This will be done by use of lookouts, aerial observation and on-site observation of smoke behavior.

Any wildfire that has the potential for smoke input into a designated area will be reported immediately to communications in the Fire Operations Section.

- D. Department of Environmental Quality (DEQ). The State Forester and the DEQ are required by ORS 477.515 to approve a plan for the purpose of managing smoke in areas they shall designate. The Oregon Smoke Management Plan is the product of this statutory requirement.

The DEQ cooperates with the Department of Forestry in all phases of the administration of the Smoke Management Plan. Particularly important is current and timely information on air pollution levels in designated areas and priority burning periods.

- E. United States Forest Service (USFS), Bureau of Land Management (BLM), and the Bureau of Indian Affairs (BIA). The USFS, BLM and BIA have signed agreements with the Department of Forestry and the DEQ to comply with the Oregon Smoke Management Plan. These agencies have agreed to follow the direction of the Forester in conducting burning operations. They follow the smoke management weather forecasts, smoke management advisories and priority burning restrictions.

National Forests within the state will coordinate currently with the Forester on smoke management and burning plans. The State Director of the Bureau of Land Management has directed BLM field people to comply with the Smoke Management Plan as administered by the State Forester.

- F. Private Forestry Operations. It is the responsibility of private forest operators under Oregon Forest Laws to burn according to the Oregon Smoke Management Plan. They are responsible to burn according to directions from State Forestry field personnel and to do mop-up of the burns necessary to prevent smoke intrusion into designated areas and to prevent fire escape.

Summary:

The State Forester is responsible for the administration of the Smoke Management Plan in Oregon. He does this in coordination with the Department of Environmental Quality and with the cooperation of the public land management agencies.

The Smoke Management Plan places the specific responsibility for making day-to-day decisions upon Field Administrators. The Forest Protection Division is responsible for providing meteorological and technical assistance to Field Administrators and for monitoring the program.

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Objective: The Department of Forestry's communications center operates a computer program to record and process smoke management data. Data is received and transmitted through the State Forestry and U.S. Forest Service teletype systems.

The objectives of the reporting system are to provide a record of:

1. Locations and amounts of planned burning for the current day.
2. Locations and amounts of burning accomplished the previous day.
3. Smoke intrusions, including source, area affected, duration, and information relative to the cause of the intrusion.
4. Annual summaries of data.

Area Included:

The reporting system includes all of western Oregon, plus those parts of Hood River and Wasco Counties within the boundary of the Mt. Hood National Forest, and the part of Klamath County within Crater Lake National Park. Data is grouped by Administrative Units, i.e., each National Forest, Crater Lake Park, and each State Forest Protection District.

Types of Burning to be Included:

All burning related to forest management activities should be included in the reporting system. Some examples are slash and brush disposal after logging, road building, scarification, or burning of brush fields for reforestation. Other examples which should be included are underburning, or brush field burning for stand improvement or wildlife habitat.

Types of Burning That Should Not be Included:

Burning for debris disposal or burning related to \*agricultural activities should not be included in the reporting system. Some examples are household or yard maintenance debris such as paper, leaves, lumber, etc., and grass or grain stubble. Small piled slash areas such as for a homesite should not be included if the amount to be burned is less than 5 tons.

While these examples would not be reported in the Smoke Management Data System, any western Oregon burning subject to permit under ORS 477.515 must conform to the Smoke Management Plan. Also, in some areas "backyard" and stubble burning must be done in compliance with Department of Environmental Quality rules, rather than the Oregon Smoke Management Plan.

- \* The range burning on Class III (Grazing) lands, common in Coos and Douglas Districts, should not be included in the Oregon Smoke Management System (OSMS) Data System. This burning should be reported to Salem daily as a separate item following "Accomplishment Report". For each permit exceeding 5 acres, report township, range, section and acreage burned.

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Procedure:

Three basic steps are involved in the reporting system:

1. A "Unit Description" is submitted to Salem for each "burn unit"\* as provided on Reporting System Coding Sheet (Part I, Form 1-1-3-400). This results in a "Unit Number" assigned to the specific burn unit, usually months or weeks before burning is to be done.
2. "Unit Numbers" of planned burns are submitted by field offices on the day burning is to be done. This results in "Planned Burns" (Part II of Form 1-1-3-400). Planned Burns are listed daily on the teletype network to all users and to DEQ.
3. An "Accomplishment Report" is submitted by field offices the day after burning, again using the "Unit Number" as a reference (Part III of Form 1-1-3-400). The Accomplishment Report is listed daily on the teletype along with Planned Burns.

Detailed instructions for Reporting System Coding Sheet (Form 1-1-3-400)  
(Also see instructions on back of form.)

Part I - Unit Description and Number Assignment.

Example entry for Part I, Form 1-1-3-400 (Unit Description).

Raw Data: This is the information needed from a field office to begin a record for a specific area to be burned. The data may be entered on the form and mailed or sent by teletype. Forms mailed should be addressed to:

Department of Forestry  
Attn: Communications Section  
2600 State Street  
Salem, OR 97310

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\* Unit—this term is used to describe a contiguous area which will be burned at the same time. This could include a right-of-way containing piled slash if the area is considered one project and will be burned at one time.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 9  
APPENDIX 1 p. 3

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Field No.  
Data Entry

1	This example is located in: West Oregon District	WO
2	This example is located in: Benton County	2
3	This example is located in: Township 11S, Rng. 7W, Sec. 12	11S-7W-12
4	Average elevation of the Unit is 1,500 feet above sea level	1500
5	Distance from Designated Area, to nearest mile, is 12 miles	12
6	Type of burn will be broadcast	B
7	Acreage in unit to nearest acre is 15	15
8	Estimated tonnage that will be consumed by fire is 150	150
9	Burn is rated high priority. (See Priority Rating System, this directive and instructions, Part I, Field 9, on back of Form 1-1-3-400)	H
10	The unit is privately owned	P

Summarized for teletype transmittal, this data would appear as follows:

WO,2,11S-7W-12,1500,12,B,15,150,H,P

Teletype transmittal of numerous entries allows a tape of field data to be made as the data is received. This tape allows direct data entry into the computer. Therefore, it is critical that each element of data (field 1, 2, 3, etc.) be separated by a comma. Also, the Township, Range and Section must be separated by a hyphen. When the last data entry (field 10) is entered, do not use a comma. Start a new line by using line feed, carriage return. (On USFS teletypes, it is helpful if the "rubout" key is also used after line feed and carriage return.)

If an error is made at any point in a line of data, type three "X's" (XXX). The computer will recognize "XXX" and ignore the data in that line. Use line feed, carriage return, etc., and start the entry again.

Number Assignment

The Salem Communications Clerk enters the unit description into the computer, then sends a "Unit Verification and Number Assignment" on the teletype, to the appropriate field office(s).

The teletype will appear as follows:

SMOKE MANAGEMENT  
UNIT VERIFICATION AND NUMBER ASSIGNMENT FOR 02/01/81

*Unit No.	WEST OREGON			BENTON			Tons	***Tons/Ac.	Owner
	Twp	Rge	Sec	Dist.	**Type	Acres			
912	11S	07W	12	12	B-H	15	150	10	P

- \* Automatically assigned by computer.
- \*\* Type and priority are both listed, i.e., B = Broadcast, H = High priority.
- \*\*\* Automatically calculated by computer.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 10  
APPENDIX 1 p. 4

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Field offices should review these as soon as possible. If any errors are found, contact the Communications Clerk to correct the data.

This completes the entry process, Part I of Form 1-1-3-400.

PART II. Planned Burns

Example entry background: The field has decided to burn Unit No. 912 (the number assigned by the computer in Part I above) today, July 20, 1981. Estimated ignition time is noon. The entire unit will be burned.

Data to be sent to Salem by teletype:

<u>Field No.</u>		<u>Data Entry</u>
1	Unit Number 912	912
2	Estimated ignition time	1200
3	Tonnage to be burned	150

The teletype data line will appear as follows:

912,1200,150

If an error is made at any point on a line of data, three X's should be entered, then use line feed and carriage return, and enter the correct data.

Do not plan right-of-way burns. (See Form 1-3-4-420)

When all planned burns have been received from the field, the Communications Clerk enters the data into the computer, which results in a teletype listing as follows:

SMOKE MANAGEMENT

PLANNED BURNS FOR 07/20/81

Unit No.	WEST OREGON			BENTON			Acres	Tons	**Time
	Twp	Rge	Sec	Elev.	Dist.	Type			
912	11S	07W	12	1500	12	B-H	15	150	1200

\*\* Estimated ignition time. This replaced tons/acre shown on Planned Burns, beginning January 1, 1981.

PART III. Accomplishment Report

Example entry background: Unit 912 was ignited as planned in the above example. However, only half the unit burned. Smoke from the burn entered Corvallis.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 11  
APPENDIX 1 p. 5

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Data to be sent to Salem by teletype on July 21.

<u>Field No.</u>		<u>Data Entry</u>
1	Unit Number	912
2	Actual Ignition Time	1200
3	Actual tonnage burned	75
		*Yes

The teletype data line will appear as follows:

912,1200,75, Yes (Same instructions as above for errors, etc.)

- \* Report a smoke intrusion by adding YES at the end of the data field.

When a smoke intrusion occurs, Form 1-1-3-410, Smoke Intrusion Report, also must be completed as soon as practical. Usually, preliminary information can be telephoned. See Appendix 2 Smoke Intrusion Report.

All planned burns must be "accomplished" the following day or on the next business day if the Communications Center is not operational on a weekend or holiday. If no burning was done, the data line would appear as follows:

912,0,0

Units burned during weekends or holidays when the Communications Center is closed should be reported in groups by the date burning was done.

Use Form 1-3-4-420 to report right-of-way burns.

The accomplishment report sent out from Salem Communications Center will appear as follows:

SMOKE MANAGEMENT  
RESULTS SUMMARY FOR 7/21/81\*

Unit No.	WEST OREGON			BENTON		Acres	Tons	**Time	
	Twp	Rge	Sec	Elev.	Dist.				Type
912	11S	07W	12	1500	12	B-H	15	75	1200

- \* Burning actually occurred 7/20
- \*\* Actual Ignition Time. This replaced tons/acre beginning January 1, 1981.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 12  
APPENDIX 1 p. 6

## REPORTING SYSTEM SMOKE MANAGEMENT PLAN

### Additional Instructions - "Available Tons" and "Tons Burned":

#### Background:

Tons of fuel burned is a critical element in the data system. It is used to estimate emissions from forest burning. It is important to private, state, and federal land managers, and air quality enforcement agencies. Therefore, the reporting of this information must be as accurate as possible. There is no advantage to be gained by knowingly reporting amounts smaller or larger than actually available or actually burned.

#### Entering Data:

When entering data in Part I, Field 8, the tons should be the amount expected to be burned under ideal burning conditions, not the total fuel loading. For example, old growth slash may total 150 tons/acre before burning. After burning it is not uncommon to have as much as 100 tons/acre (usually the larger material) remaining. In this case, 50 tons/acre should be the basis for estimating the "available tons". If the unit area was 10 acres, then  $10 \times 50 = 500$  tons - the amount which should be entered in Part I, Field 8, of Form 1-1-3-400.

#### Planning a Burn:

The data system was modified in 1979 to allow planning all, or part, of a unit on a given day. If only part of a unit will be burned, the tons to be burned that day should be entered. (Part II, Field 3, Form 1-1-3-400.) The computer will list that amount on the "Planned Burn" list for that day.

#### Resulting a Burn:

Report the tons that actually burned.

#### Summaries Available:

In addition to the daily planned burns and results listings, several summary printouts are available. At approximately 3-month intervals, the Communications Clerk will send each field administrative unit the following summaries. Also, they may be obtained at any time by calling the Communications Clerk:

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

1. Available Units. Lists all units that have not been reported as 100% burned. Last item shown is percent of tonnage unburned.

Available Units Format:

SMOKE MANAGEMENT  
AVAILABLE UNITS

WEST OREGON							
Unit	Twp-Rng-Sec	Elev.	Distance	Type	Acres	Tons	Left
912	11S-07W-12	1500	12	B-U-M	15	75	50%
					15*	75*	-

\*Total acres and tons by District.

2. Accomplishment Report. Lists all units that have had any burning done. Tons is the cumulative amount burned prior to the printout date.

Accomplishment Report Format:

SMOKE MANAGEMENT  
ACCOMPLISHMENT REPORT

WEST OREGON							
Unit	Twp-Rng-Sec	Elev.	Distance	Type	Acres	Tons	
912	11S-07W-12	1500	12	B-H-M	15	75	
1*					15*	75*	

\* Total units, acres and tons by District.

3. Problem Summary Report. This lists all burns from which an intrusion was reported. The last item shown is month and day the burn was conducted.

REPORTING SYSTEM  
SMOKE MANAGEMENT PLAN

Reporting Schedules

Unit Descriptions

These may be transmitted any time during office hours; however, field offices should avoid periods when the teletype is scheduled for other data such as incoming weather or fire reports. Also, waiting to submit unit descriptions until the day the unit is to be burned places unreasonable demands on the data system. Whenever possible, these should be sent well before the day burning will occur.

Accomplished and Planned Burns

These are to be sent at 9:30 AM. The Salem Communications Clerk will transmit "Smoke Management Accomplished and Planned Please" at approximately 9:30 AM, after which field units should report in the following format: (Also see Reporting System pages 4-5 this Appendix)

District Identifier, Accomplished (yesterday's burning)

Unit No., Actual Ignition Time, Tons Burned, YES (only if intrusion occurred)

(use a new line for each unit number)

Planned (for today)

Unit No., Estimated Ignition Time, Tons Planned,

(use a new line for each unit number)

End - District Identifier

Smoke Management (Daily summaries from Salem)

As soon as Accomplished and Planned reports are processed in Salem, the Communications Clerk will transmit the summaries to field units and Department of Environmental Quality. Contents of these summaries are shown on pages 4 & 5 of this appendix.

SMOKE INTRUSION REPORT FORM 1-1-3-410

Definition

A smoke intrusion occurs when any visible or monitored smoke from prescribed forest burning enters a Designated Area below that Designated Area's ceiling.

Background

Smoke intrusions vary greatly in duration, concentration and effect on a Designated Area. For example, a smoke layer well above the surface would not affect the monitored air quality in a Designated Area, but is still an intrusion under the Oregon Smoke Management Plan. Smoke accumulating at the surface, and remaining overnight adversely affects air quality more than if smoke drifts through, clearing in an hour or two.

Purpose

This report provides a descriptive record of smoke intrusions, supplemental to the "Problem Burns" reported in the Smoke Management Data System. Reports are annually summarized in the "Smoke Management, Annual Report" compiled by the Smoke Management Section.

Responsibilities

Field units, i.e., State Districts or National Forests, are responsible for monitoring smoke from their burns, and reporting intrusions to the Smoke Management Coordinator:

1. On the burning "Accomplishment Report" given daily, and,
2. Through the use of form 1-1-3-410.

The Salem Smoke Management Coordinator is responsible for:

1. Combining field reports into one intrusion summary when more than one field unit is involved.
2. Liaison with Department of Environmental Quality to develop mutually acceptable descriptive reports of smoke intrusions within 3 days of the occurrence.
3. Completion of Form 1-1-3-410A, summary of meteorological information.
4. Preparing an annual summary of intrusions.

Detailed Instructions

When to report:

Any intrusion is to be reported as soon as possible. If 7-day operations are not in progress at Salem, then report on the first workday after the incident.

SMOKE INTRUSION REPORT FORM 1-1-3-410

It is also helpful to report potential intrusions, as soon as it appears that smoke may enter a Designated Area. This allows the Smoke Management Coordinator to obtain monitoring data prior to and during the incident. It also facilitates public relations work resulting from an incident.

Data Entries (See sample form page 4 of this appendix.)

Smoke Origin

1. The unit number(s) of burns contributing to the intrusion.
2. Date ignition occurred.
3. Name of State District, National Forest (or Crater Lake Park).
4. Wind direction and speed at burn site at time of ignition.
5. Time ignition began, use 24 hour clock time.

Intrusion Description

6. Brief description, including name(s) of communities, and extent of area affected. (For example, smoke entered Willamette Valley near Dallas, drifted SE through Monmouth to Albany.) Check yes if smoke entered city of 10,000, including 3-mile radius around city limits.
7. Date intrusion entered Designated Area (This may be later than date of ignition).
8. Time (24 hour clock) smoke entered Designated Area.
9. Number of hours smoke was present in Designated Area.
10. Check proper box. Main plume refers to smoke produced during active or convective phase of burn. Residual smoke is that which is produced after fire dies down to smoldering phase. Drift smoke is that which accumulates in one area, later moving into a Designated Area, or is split off from a main plume.
11. If smoke in Designated Area was at ground level, enter "surface" or "O" for base elevation. If smoke did not reach the ground, enter best estimate of distance between ground and bottom of smoke cloud.  
  
For depth, enter best estimate of distance from bottom to top of smoke layer.
12. Check box which best describes smoke behavior in the Designated Area. Other descriptive phrases may be substituted if field reporter wishes.
13. Best estimate of visibility in miles in the Designated Area. (Airports are often the best source of information.)

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 17  
APPENDIX 2 p. 3

SMOKE INTRUSION REPORT FORM 1-1-3-410

14. Leave blank if no other visibility impairment was present or several may be checked.
- 15.&16. Self-explanatory.
17. Name of field person reporting the intrusion.

SMOKE INTRUSION REPORT

OREGON SMOKE MANAGEMENT PLAN

This information must be telephoned to Salem, 378-2518, no later than the next workday after intrusion.

Smoke Origin: Unit Number(s) 1 Date Burned 2  
District/Forest 3 Mo. Day Year

Surface Wind Direction & Speed 4 at ignition time 5.

Intrusion Description

Area affected (Portion of DA where smoke was visible or monitored)

6

Did smoke affect populated area? (cities over 10,000 population, plus Lebanon, Tillamook) Yes  No

Date 7 Time 8 smoke entered area. Duration 9 hrs.

Smoke Type: Main Plume  Residual  Drift Smoke

Vertical Characteristics: Base elevation (above terrain) \_\_\_\_\_ ft.  
Depth \_\_\_\_\_ ft.

Behavior: Smoke remained at same level  Smoke rose   
Smoke subsided  Smoke layered & maintained identity   
Smoke dispersed, lost identity

Prevailing Visibility (at time smoke entered area) 13 miles

Other visibility restricting sources present (check those which apply)

- |   |  |
|---|--|
| 1. Field Smoke <input type="checkbox"/>         | 5. Fog <input type="checkbox"/>                |
| 2. Wildfire Smoke <input type="checkbox"/>      | 6. Other (specify) <input type="checkbox"/>    |
| 3. Dust <input type="checkbox"/>                | 7. Unable to Identify <input type="checkbox"/> |
| 4. Resident Emmissions <input type="checkbox"/> |  |

Cause (Your explanation of reason smoke intrusion occurred)

15

Comments: (Any additional information which may clarify report)

16

Reported by 17  
Name

## FOREST LAND BURNING PRIORITY RATING SYSTEM

The Forest Land Burning Priority Rating System (Priority Burning System) identifies units\* which require burning during the summer months to meet silvicultural and reforestation objectives. It provides a means for prioritizing units selected for summer burning into "high", "moderate", and "low", categories.

The objective of the Priority Burning System is to more closely regulate forest land burning during the approximately 60 mid-summer days when field burning is being accomplished in the Willamette Valley. The system insures that only forest units which must be burned during the hotter, drier mid-summer period will be burned while field burning is taking place.

The area covered by the system is that part of western Oregon north of the North Fork and main stem of the Umpqua River, excluding the Steamboat and Diamond Lake Districts of the Umpqua National Forest.

Rating forms for the Cascade and Coast Ranges were developed and field tested by two interagency-industry task force groups. The system is designed to identify those units which, because of the nature of the site, fuel and silvicultural requirements, must be burned during the hotter, drier mid-summer period.

The Priority Burning System is closely coordinated with the Department of Environmental Quality. The start and ending of the priority period\*\* will be determined by the Forester with the advice of the DEQ on field burning levels. The priority burning systems will not be in effect when field burning is stopped, or at very low activity levels. Also, non-priority burning may be allowed in specified areas when the Forester determines that such burning will not impact the Willamette Valley.

Notification of the beginning, ending, and any areas exempt from the Priority Burning System will be included with daily smoke management advisories issued from Salem.

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\* Unit: A term used to describe a contiguous area of forest land with specific boundaries upon which some activity or activities will be conducted.

\*\* Priority Burning Period: It is a period of time when only "high priority" forest land units will be burned. The 60 days is an approximate span of time; the period will generally begin in mid-July when heavy field burning has begun and will end when conditions no longer permit this level of burning in early September.

### FOREST LAND BURNING PRIORITY RATING SYSTEM

Certain special areas will be classed as high priority without use of the priority rating procedure. Such areas are characterized by special or unique management objectives which make use of a rating system impractical. Such units include:

- Vegetation management areas, such as huckleberry fields.
- Visual management areas which must be burned under very restrictive prescriptions.
- Special watershed areas requiring burning.
- Game habitat improvement burning.
- Campground development.
- Special reseach projects.
- Right-of-way burning which must be done during the summer.
- Prescribed under-burning.
- \*High elevation units.

- 
- \* High elevation units in the Cascades which may be burned with no risk of impact on the designated area will be considered high priority under the following circumstances:
    - a. High elevation units must be at least 1000 feet in elevation above the designated area ceiling (designated area ceiling is 2500 feet). Thus, any unit must be at or near 3500 feet elevation to fall into this category.
    - b. In no event will any unit burned in this category be less than 1000 feet above a stable layer above the designated area.
    - c. There must be a sustained westerly air flow in the vicinity of the unit with no probability of a wind shift toward the designated area within 12 hours of ignition time.
    - d. All units must be at least 40 miles from the designated area.
    - e. All units must be cleared through the Smoke Management Coordinator prior to ignition.

## FOREST LAND BURNING PRIORITY RATING SYSTEM

### Instructions For Using Priority Rating Forms For Evaluating Forest Land Burning Units

The Preliminary Priority Burning Chart will be used for all units which are desirable to burn during the summer months. This chart is used to indicate the treatment objective for the site and whether burning is needed. If burning is needed, the season when burning objectives can best be met are identified. If summer burning is required or desirable, the appropriate Coast Range or Cascade Range Prioriting Rating Form is used.

#### Using the Preliminary Priority Burning Chart Form 1-1-3-403

Listed under "treatment objective" are seven of the most common treatment objectives. More than one treatment objective may be present for any single unit. Additional space is provided for treatment objectives not listed.

When treatment objectives have been identified, the "Burning Required?" column is used to indicate whether or not burning is required to meet the objective.

If the "Burning Required?" column is checked "yes", the "When Can Burning Best Be Accomplished" column is checked as to when burning should be accomplished to meet the treatment objective. Where "Summer" is checked, the Coast or Cascade Range form is to be used to further evaluate the unit.

The "Comments" column is available for any special considerations such as special objectives, pre-treatment efforts required or other factors.

#### Burning Priority Rating Form for the Cascade Range Form 1-1-3-402

This form is adapted for the westside of the Cascade Range north of the North Fork and mainstream of the Umpqua River.

The "Slope" column is used to evaluate the way the steepness of the terrain will affect fire behavior on the unit. Fire will spread and broadcast much more readily on steep slopes than on gentle slopes or flat ground. Points are assigned for each slope class.

The "Special Considerations" column includes a variety of factors which relate to the need to burn during the summer months or to the risk of down-canyon winds advecting smoke into the designated area.

The "Aspect" column is used to consider exposure as it affects drying of fuels and fire behavior. For example, south exposure units receive much more direct sunlight and will be dry enough to burn many more days than north slopes.

The "Silvicultural Consideration" column include things such as pre-treatment requirements before burning, availability of essential planting stock or cost and potential for success of alternative treatments.

Protection  
6/83 -- P.N. 628

DIRECTIVE  
1-1-3-411 p. 22  
APPENDIX 3 p. 4

### FOREST LAND BURNING PRIORITY RATING SYSTEM

The "Soil Consideration" relates to soil which may be damaged if too dry, or too moist soils which preclude burning except during mid-summer drought periods. Also included are areas where excessive soil damage will result from mechanical piling activity.

The points are totaled. Any unit scoring 50 points or more is a high priority unit which may be burned during the Priority Burning Period. Units with less than 50 points will not be burned while the priority burning restriction is in effect.

#### Burning Priority Rating Form For the Coast Range Form 1-1-3-401

The "Plant Community" column relates to the plant community on the site and the difficulty of reforesting the site with desirable species. For example, the Salmonberry-Thimbleberry plant community is extremely difficult to reforest without burning or repeated chemical applications. The most difficult plant community to reforest receives the highest point values.

The "Fuels Overstory" relates to the fuel type that will remain after logging or treatment. Fuel types which will burn readily are rated lower than the Alder-Salmonberry combinations that are difficult to burn under ideal conditions.

The "Location" column relates primarily to marine air influence on drying and the probability of summer fog intrusions. Point values increase as the coastline is approached and in fog influx corridors.

The "Aspect" column uses the same consideration as the Cascades form. North slopes may be burned on much fewer days than can south slopes.

The "Fuel Treatment" column relates to the difficulty and effectiveness of alternate treatments and the pre-treatment essential to achieving the burning objectives. Units requiring mass ignition with explosive fuses are given a high point score because it is essential to fire such units at the earliest burn day following installation of the ignition equipment. Such units normally fall into a high category for other reasons also.

As in the Cascades, a score of 50 points or more is needed to place a unit in the priority burn category. Units with less than 50 points will not be burned during the Priority Burning Period.

UNIT \_\_\_\_\_  
Priority Rating \_\_\_\_\_

A SLASH BURNING PRIORITY RATING FORM FOR THE COASTAL RANGE - WESTERN OREGON

SERIAL COMMUNITY (UNDERSTORY)	FUELS (OVERSTORY)	LOCATION	ASPECT (DOMINANT)	FUEL TREATMENT NECESSARY TO ACHIEVE SUCCESSFUL BURNING
Salmonberry, thimbleberry, red huckleberry, sword fern, vine maple <u>15</u>	Alder with a salmonberry salal undercover or a brush dominant site or predominately hemlock stand <u>15</u>	Strong marine influence of coastal strip up to 10 miles inland generally and 15 miles in fog influx* corridors or areas west of the coast range where the fog persists late in the day. <u>15</u>	NORTH NE NW <u>20</u>	Unit to be treated with dessicant or herbicide or hand slashed to meet vegetation control objective, and/or unit must be burned during dry period to reduce competing vegetation <u>18</u>
Salal, bracken fern, ocean spray, vine maple <u>8</u>	Spruce/hemlock or alder with 10-30% fir <u>12</u>	West of summit of the Coast Range <u>8</u>	E SE <u>8</u>	Unit can be mechanically bunched or slashed, or dessicant or herbicide applied to produce burn which will reduce competing vegetation. <u>12</u>
	Second growth fir and alder. Fir is 30% or more of the stand. <u>10</u>	East of the summit of the Coast Range <u>6</u>	SW W <u>6</u>	Unit has some hand slashing. No dessicant or herbicide used. Sufficient heavy slashing present to carry broadcast fire. <u>6</u>
Sword fern, Oregon oxalis <u>4</u>	Second growth or mature fir stand. 50% or more of stand is fir <u>4</u>	Valley fringe type <u>4</u>	SOUTH <u>4</u>	Burning will meet the vegetation control objective with little or no fuel treatment <u>4</u>

Point system: 50+ High  
35-50 Medium  
Under 35 Low

\*Fog influx corridors are areas where marine air flows through a drainage into the Valley--included are the Nestucca, Salmon, Siuslaw, Yaquina, Alsea, Columbia and Umpqua Rivers.



"High elevation Units" which may be burned with no risk of impact will be considered high priority under the following circumstances:

- a. High elevation units must be at least 1000 feet in elevation above the designated area ceiling (designated area ceiling is 2500 feet). Thus, any unit must be at or near 3500 feet elevation to fall into this category.
- b. In no event will any unit burned in this category be less than 1000 feet above a stable layer above the designated area.
- c. There must be a sustained westerly air flow in the vicinity of the unit with no probability of a wind shift toward the designated area within 12 hours of ignition time.
- d. All units must be at least 40 miles from the designated area.
- e. All units must be cleared through the Smoke Management Coordinator prior to ignition.

PRELIMINARY PRIORITY BURNING CHART

This chart is to be used to indicate the treatment objective and whether or not burning is required to meet that objective. If burning is indicated, the period when that burning can best be accomplished will be indicated. Units which are checked for summer, spring-summer or summer-fall will then be evaluated on the Coast or Cascade Range Slash Burning Priority Status form for assignment of priority

UNIT: \_\_\_\_\_

TREATMENT OBJECTIVE	Burning Required?		When can burning best be accomplished?			UNIT _____ COMMENTS
	YES	NO	Spring	Summer	Fall	
1. Reduce duff layer, root mat or prepare seed bed						
2. Reduce or eliminate mechanical barrier to planting or seeding						
3. To control competing vegetation						
4. To eliminate or control shading for seeded or planted stock						
5. To control animal habitat, insect or disease						
6. To reduce overall fuel loading in the area to reduce fire hazard						
7. Reduce fire hazard in high risk areas						
8.						
9.						
10.						

Protection  
5/73 P.N. 628

DIRECTIVE  
1-1-3-411 p. 26  
APPENDIX 3 p. 8

### ESTIMATING TONS OF FUEL CONSUMED IN PRESCRIBED BURNS

The Photo Series for Quantifying Residue\* provides reasonable means for estimating the tons of fuel per acre that will be consumed by a prescribed burn in residue left after logging. This publication contains 6 series of photographs displaying different forest residue loading levels, by size class, for areas of like timber types and cutting practice.

Information with each photo includes measured weights, volumes and other residue data, information about the timber stand and harvest and thinning actions, and fuel ratings. These photo series provide a fast and easy-to-use means for quantifying existing residues. An evaluation of the portion of each size class of fuel that will remain after burning will provide a reasonable estimate of the fuel which will be consumed by fire. It must be emphasized that this system, while not perfect, will provide reasonable estimates if used consistently. Experience in its use will increase the ease of using it and improve the accuracy of estimates.

Procedures for use of the photo series for estimating fuel tonnage which will be, or has been, consumed by fire follows:

1. Select the loading rank, forest type, forest size class, and cutting practice as explained on page 7 and 8 of the photo series. Selection of the loading rank may best be done by looking at the photo series after selecting the other three characteristics.

Example: Douglas Fir (FD0 type, size class 4 ( 20 inch dbh), clear cut (CC) will identify the series of photos from which a photo can be selected which is most representative of the slash unit being measured.

2. When the representation photo is selected the Data sheet for that fuel loading can be used to make the fuels estimate.

Using 7-Df-4-CC (page 22) as our example and assuming:

<u>Fuel size class</u>	<u>Weight/Acre</u>	<u>% that will be burned</u>
0.25-1.0	4.9	100%
1.1-3.0	11.3	95%
3.1-9.0	22.0	60%
9.0-20.0	13.9	20%
20.1+	45.0	10%

The following calculations will give a tonnage estimate per acre:

$$\begin{array}{r} (4.9 \times 100\%) + (11.3 \times 95\%) + (22.0 \times 60\%) \\ + (13.9 \times 20\%) + (45.0 \times 10\%) = \text{Tons per acre} \\ 4.9 + 10.7 + 13.2 + 2.8 + 4.5 = 36.1 \text{ tons per acre.} \end{array}$$

Examination of units before and after burning will increase the accuracy of estimating the percentage of each fuel type that will be consumed.

\* USDA Forest Service General Technical Report PNW 51, 1976. Photo Series for Quantifying Forest Residues in the coastal Douglas-fir - Hemlock type and the coastal Douglas-fir - hardwood type. Also Technical Report PNW-52, 1976 (same title) for Ponderosa pine types, Ponderosa pine and associated species type and Lodgepole pine type.

OREGON ADMINISTRATIVE RULES  
CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY

**Limitation by Permit**

340-20-198 [DEQ 16-1979, f. & ef. 6-22-79;  
Repealed by DEQ 25-1981, f. & ef. 9-8-81]

**Conflicts of Interest**

**Purpose**

340-20-200 The purpose of rules 340-20-200 to 340-20-215 is to comply with the requirements of Section 128 of the federal Clean Air Act as amended August, 1977 (Public Law 95-95) (hereinafter called "Clean Air Act"), regarding public interest representation by a majority of the members of the Commission and by the Director and disclosure by them of potential conflicts of interest.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 15-1978, f. & ef. 10-13-78

**Definitions**

340-20-205 As used in rules 340-20-200 to 340-20-215, unless otherwise required by context:

(1) "Disclose" means explain in detail in a signed written statement prepared at least annually and available for public inspection at the Office of the Director or the Oregon Ethics Commission.

(2) "Commission" means the Oregon Environmental Quality Commission.

(3) "Director" means the Director of the Oregon Department of Environmental Quality.

(4) "Persons subject in Oregon to permits or enforcement orders under the Clean Air Act" includes any individual, corporation, partnership, or association who holds, is an applicant for, or is subject to any permit, or who is or may become subject to any enforcement order under the Clean Air Act, except that it does not include:

(a) An individual who is or may become subject to an enforcement order solely by reason of his or her ownership or operation of a motor vehicle; or

(b) Any department or agency of a state, local, or regional government.

(5) "Potential conflict of interest" includes:

(a) Any significant portion of income from persons subject in Oregon to permits or enforcement orders under the Clean Air Act; and

(b) Any interest or relationship that would preclude the individual having the interest or relationship from being considered one who represents the public interest.

(6) "Represent the public interest" means that, other than an insignificant portion of income, the individual has no special interest or relationship that would preclude objective and fair consideration and action by that individual in the best interest of the general public.

(7) "Significant portion of income" means 10 percent or more of gross personal income for a calendar year, including retirement benefits, consultant fees, and stock dividends, except that it shall mean 50 percent or more of gross personal income for a calendar year if the recipient is over 60 years of age and is receiving such portion pursuant to retirement, pension, or similar arrangement. For purposes of this section, income derived from mutual-fund payments, or from other diversified investments as to which the recipient does not know the identity of the primary sources of income, shall

be considered part of the recipient's gross personal income but shall not be treated as income derived from persons subject to permits or enforcement orders under the Clean Air Act.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 15-1978, f. & ef. 10-13-78

**Public Interest Representation**

340-20-210 At least a majority of the members of the Commission and the Director shall represent the public interest and shall not derive any significant portion of their respective incomes directly from persons subject in Oregon to permits or enforcement orders under the Clean Air Act.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 15-1978, f. & ef. 10-13-78

**Disclosure of Potential Conflicts of Interest**

340-20-215 Each member of the Commission and the Director shall disclose any potential conflict of interest.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 15-1978, f. & ef. 10-13-78

**New Source Review**

**Applicability**

340-20-220 (1) No owner or operator shall begin construction of a major source or a major modification of an air contaminant source without having received an Air Contaminant Discharge Permit from the Department of Environmental Quality and having satisfied OAR 340-20-230 through 340-20-280 of these rules.

(2) Owners or operators of proposed non-major sources or non-major modifications are not subject to these New Source Review rules. Such owners or operators are subject to other Department rules including Highest and Best Practicable Treatment and Control Required (OAR 340-20-001), Notice of Construction and Approval of Plans (OAR 340-20-020 to 340-20-032), Air Contaminant Discharge Permits (OAR 340-20-140 to 340-20-185), Emission Standards for Hazardous Air Contaminants (OAR 340-25-450 to 340-25-480), and Standards of Performance for New Stationary Sources (OAR 340-25-505 to 340-25-545).

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 25-1981, f. & ef. 9-8-81

**Definitions**

340-20-225 (1) "Actual emissions" means the mass rate of emissions of a pollutant from an emissions source:

(a) In general, actual emissions as of the baseline period shall equal the average rate at which the source actually emitted the pollutant during the baseline period and which is representative of normal source operation. Actual emissions shall be calculated using the source's actual operating hours, production rates and types of materials processed, stored, or combusted during the selected time period.

(b) The Department may presume that existing source-specific permitted mass emissions for the source are equivalent to the actual emissions of the source if they are within 10% of the calculated actual emissions.

**OREGON ADMINISTRATIVE RULES**  
**CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY**

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(c) For any newly permitted emission source which had not yet begun normal operation in the baseline period, actual emissions shall equal the potential to emit of the source.

(2) "Baseline Concentration" means that ambient concentration level for a particular pollutant which existed in an area during the calendar year 1978. If no ambient air quality data is available in an area, the baseline concentration may be estimated using modeling based on actual emissions for 1978. The following emission increases or decreases will be included in the baseline concentration:

(a) Actual emission increases or decreases occurring before January 1, 1978; and

(b) Actual emission increases from any major source or major modification on which construction commenced before January 6, 1975.

(3) "Baseline Period" means either calendar years 1977 or 1978. The Department shall allow the use of a prior time period upon a determination that it is more representative of normal source operation.

(4) "Best Available Control Technology (BACT)" means an emission limitation (including a visible emission standard) based on the maximum degree of reduction of each air contaminant subject to regulation under the Clean Air Act which would be emitted from any proposed major source or major modification which, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such air contaminant. In no event, shall the application of BACT result in emissions of any air contaminant which would exceed the emissions allowed by any applicable new source performance standard or any standard for hazardous air pollutants. If an emission limitation is not feasible, a design, equipment, work practice, or operational standard, or combination thereof, may be required. Such standard shall, to the degree possible, set forth the emission reduction achievable and shall provide for compliance by prescribing appropriate permit conditions.

(5) "Class I area" means any Federal, State or Indian reservation land which is classified or reclassified as Class I area. Class I areas are identified in OAR 340-31-120.

(6) "Commence" means that the owner or operator has obtained all necessary preconstruction approvals required by the Clean Air Act and either has:

(a) Begun, or caused to begin, a continuous program of actual on-site construction of the source to be completed in a reasonable time; or

(b) Entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the source to be completed in a reasonable time.

(7) "Construction" means any physical change (including fabrication, erection, installation, demolition, or modification of an emissions unit) or change in the method of operation of a source which would result in a change in actual emissions.

(8) "Emission Reduction Credit Banking" means to presently reserve, subject to requirements of these provisions, emission reductions for use by the reserver or assignee

for future compliance with air pollution reduction requirements.

(9) "Emissions Unit" means any part of a stationary source (including specific process equipment) which emits or would have the potential to emit any pollutant subject to regulation under the Clean Air Act.

(10) "Federal Land Manager" means with respect to any lands in the United States, the Secretary of the federal department with authority over such lands.

(11) "Fugitive emissions" means emissions of any air contaminant which escape to the atmosphere from any point or area that is not identifiable as a stack, vent, duct, or equivalent opening.

(12) "Growth Increment" means an allocation of some part of an airshed's capacity to accommodate future new major sources and major modifications of sources.

(13) "Lowest Achievable Emission Rate (LAER)" means that rate of emissions which reflects: the most stringent emission limitation which is contained in the implementation plan of any state for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable; or the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent. In no event, shall the application of this term permit a proposed new or modified source to emit any air contaminant in excess of the amount allowable under applicable new source performance standards or standards for hazardous air pollutants.

(14) "Major Modification" means any physical change or change of operation of a source that would result in a net significant emission rate increase (as defined in definition (22)) for any pollutant subject to regulation under the Clean Air Act. This criteria also applies to any pollutants not previously emitted by the source. Calculations of net emission increases must take into account all accumulated increases and decreases in actual emissions occurring at the source since January 1, 1978, or since the time of the last construction approval issued for the source pursuant to the New Source Review Regulations for that pollutant, whichever time is more recent. If accumulation of emission increases results in a net significant emission rate increase, the modification causing such increases become subject to the New Source Review requirements including the retrofit of required controls.

(15) "Major Source" means a stationary source which emits, or has the potential to emit, any pollutant regulated under the Clean Air Act at a Significant Emission Rate (as defined in definition (22)).

(16) "Nonattainment Area" means a geographical area of the State which exceeds any state or federal primary or secondary ambient air quality standard as designated by the Environmental Quality Commission and approved by the Environmental Protection Agency.

(17) "Offset" means an equivalent or greater emission reduction which is required prior to allowing an emission increase from a new major source or major modification of a source.

(18) "Plant Site Emission Limit" means the total mass emissions per unit time of an individual air pollutant specified in a permit for a source.

(19) "Potential to Emit" means the maximum capacity of a source to emit a pollutant under its physical and

**OREGON ADMINISTRATIVE RULES**  
**CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY**

operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. Secondary emissions do not count in determining the potential to emit of a source.

(20) "Resource Recovery Facility" means any facility at which municipal solid waste is processed for the purpose of extracting, converting to energy, or otherwise separating and preparing municipal solid waste for reuse. Energy conversion facilities must utilize municipal solid waste to provide 50% or more of the heat input to be considered a resource recovery facility.

(21) "Secondary Emissions" means emissions from new or existing sources which occur as a result of the construction and/or operation of a source or modification, but do not come from the source itself. Secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the source associated with the secondary emissions. Secondary emissions may include, but are not limited to:

(a) Emissions from ships and trains coming to or from a facility;

(b) Emissions from off-site support facilities which would be constructed or would otherwise increase emissions as a result of the construction of a source or modification.

(22) "Significant emission rate" means:

(a) Emission rates equal to or greater than the following for air pollutants regulated under the Clean Air Act:

Table 1: Significant Emission Rates for  
Pollutants Regulated Under the Clean Air Act

Pollutant	Significant Emission Rate
(A) Carbon Monoxide	100 tons/year
(B) Nitrogen Oxides	.40 tons/year
(C) Particulate Matter*	.25 tons/year
(D) Sulfur Dioxide	.40 tons/year
(E) Volatile Organic Compounds*	.40 tons/year
(F) Lead	.0.6 ton/year
(G) Mercury	.0.1 ton/year
(H) Beryllium	.0.0004 ton/year
(I) Asbestos	.0.007 ton/year
(J) Vinyl Chloride	.1 ton/year
(K) Fluorides	.3 tons/year
(L) Sulfuric Acid Mist	.7 tons/year
(M) Hydrogen Sulfide	.10 tons/year
(N) Total reduced sulfur (including hydrogen sulfide)	.10 tons/year
(O) Reduced sulfur compounds (including hydrogen sulfide)	.10 tons/year

NOTE: \*For the nonattainment portions of the Medford-Ashland Air Quality Maintenance Area, the Significant Emission Rates for particulate matter and volatile organic compounds are defined in Table 2.

(b) For pollutants not listed above, the Department shall determine the rate that constitutes a significant emission rate.

(c) Any emissions increase less than these rates associated with a new source or modification which would construct within 10 kilometers of a Class I area, and would have an impact on such area equal to or greater than 1 ug/m<sup>3</sup> (24 hour average) shall be deemed to be emitting at a significant emission rate (see Table 2).

(23) "Significant Air Quality Impact" means an ambient air quality impact which is equal to or greater than those set out in Table 3. For sources of volatile organic compounds (VOC), a major source or major modification will be deemed to have a significant impact if it is located within 30 kilometers of an ozone nonattainment area and is capable of impacting the nonattainment area.

(24) "Significant impairment" occurs when visibility impairment in the judgment of the Department interferes with the management, protection, preservation, or enjoyment of the visual experience of visitors within a Class I area. The determination must be made on a case-by-case basis considering the recommendations of the Federal Land Manager; the geographic extent, intensity, duration, frequency, and time of visibility impairment. These factors will be considered with respect to visitor use of the Class I areas, and the frequency and occurrence of natural conditions that reduce visibility.

(25) "Source" means any building, structure, facility, installation or combination thereof which emits or is capable of emitting air contaminants to the atmosphere and is located on one or more contiguous or adjacent properties and is owned or operated by the same person or by persons under common control.

(26) "Visibility impairment" means any humanly perceptible change in visual range, contrast or coloration from that which would have existed under natural conditions. Natural conditions include fog, clouds, windblown dust, rain, sand, naturally ignited wildfires, and natural aerosols.

Stat. Auth.: ORS Ch. 468  
 Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84

**Procedural Requirements**

340-20-230 (1) Information Required. The owner or operator of a proposed major source or major modification shall submit all information necessary to perform any analysis or make any determination required under these rules. Such information shall include, but not be limited to:

(a) A description of the nature, location, design capacity, and typical operating schedule of the source or modification, including specifications and drawings showing its design and plant layout;

(b) An estimate of the amount and type of each air contaminant emitted by the source in terms of hourly, daily, seasonal, and yearly rates, showing the calculation procedure;

(c) A detailed schedule for construction of the source or modification;

(d) A detailed description of the system of continuous emission reduction which is planned for the source or modification, and any other information necessary to deter-

**OREGON ADMINISTRATIVE RULES**  
**CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY**

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mine that best available control technology or lowest achievable emission rate technology, whichever is applicable, would be applied;

(e) To the extent required by these rules, an analysis of the air quality and/or visibility impact of the source or modification, including meteorological and topographical data, specific details of models used, and other information necessary to estimate air quality impacts; and

(f) To the extent required by these rules, an analysis of the air quality and/or visibility impacts, and the nature and extent of all commercial, residential, industrial, and other source emission growth which has occurred since January 1, 1978, in the area the source or modification would affect.

**(2) Other Obligations:**

(a) Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to these rules or with the terms of any approval to construct, or any owner or operator of a source or modification subject to this section who commences construction after the effective date of these regulations without applying for and receiving an Air Contaminant Discharge Permit, shall be subject to appropriate enforcement action.

(b) Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within 18 months of the scheduled time. The Department may extend the 18-month period upon satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project: each phase must commence construction within 18 months of the projected and approved commencement date.

(c) Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan and any other requirements under local, state or federal law.

**(3) Public Participation:**

(a) Within 30 days after receipt of an application to construct, or any addition to such application, the Department shall advise the applicant of any deficiency in the application or in the information submitted. The date of the receipt of a complete application shall be, for the purpose of this section, the date on which the Department received all required information.

(b) Notwithstanding the requirements of OAR 340-14-020, but as expeditiously as possible and at least within six months after receipt of a complete application, the Department shall make a final determination on the application. This involves performing the following actions in a timely manner:

(A) Make a preliminary determination whether construction should be approved, approved with conditions, or disapproved.

(B) Make available for a 30-day period in at least one location a copy of the permit application, a copy of the preliminary determination, and a copy or summary of other materials, if any, considered in making the preliminary determination.

(C) Notify the public, by advertisement in a newspaper of general circulation in the area in which the proposed source or modification would be constructed, of the applica-

tion, the preliminary determination, the extent of increment consumption that is expected from the source or modification, and the opportunity for a public hearing and for written public comment.

(D) Send a copy of the notice of opportunity for public comment to the applicant and to officials and agencies having cognizance over the location where the proposed construction would occur as follows: The chief executives of the city and county where the source or modification would be located, any comprehensive regional land use planning agency, any State, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the source or modification, and the Environmental Protection Agency.

(E) Upon determination that significant interest exists, provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the source or modification, alternatives to the source or modification, the control technology required, and other appropriate considerations. For energy facilities, the hearing may be consolidated with the hearing requirements for site certification contained in OAR Chapter 345, Division 15.

(F) Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing(s) in making a final decision on the approvability of the application. No later than 10 working days after the close of the public comment period, the applicant may submit a written response to any comments submitted by the public. The Department shall consider the applicant's response in making a final decision. The Department shall make all comments available for public inspection in the same locations where the Department made available preconstruction information relating to the proposed source or modification.

(G) Make a final determination whether construction should be approved, approved with conditions, or disapproved pursuant to this section.

(H) Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the Department made available preconstruction information and public comments relating to the source or modification.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 18-1984, f. & ef. 10-16-84

**Review of New Sources and Modifications for Compliance With Regulations**

**340-20-235** The owner or operator of a proposed major source or major modification must demonstrate the ability of the proposed source or modification to comply with all applicable requirements of the Department of Environmental Quality, including New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants, and shall obtain an Air Contaminant Discharge Permit.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 25-1981, f. & ef. 9-8-81

**Requirements for Sources in Nonattainment Areas**

**340-20-240** New major sources and major modifica-

OREGON ADMINISTRATIVE RULES  
CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY

tions which are located in designated nonattainment areas shall meet the requirements listed below:

(1) **Lowest Achievable Emission Rate.** The owner or operator of the proposed major source or major modification must demonstrate that the source or modification will comply with the lowest achievable emission rate (LAER) for each nonattainment pollutant. In the case of a major modification, the requirement for LAER shall apply only to each new or modified emission unit which increases emissions. For phased construction projects, the determination of LAER shall be reviewed at the latest reasonable time prior to commencement of construction of each independent phase.

(2) **Source Compliance.** The owner or operator of the proposed major source or major modification must demonstrate that all major sources owned or operated by such person (or by an entity controlling, controlled by, or under common control with such person) in the state are in compliance or on a schedule for compliance, with all applicable emission limitations and standards under the Clean Air Act.

(3) **Growth Increment or Offsets.** The owner or operator of the proposed major source or major modification must demonstrate that the source or modification will comply with any established emissions growth increment for the particular area in which the source is located or must provide emission reductions ("offsets") as specified by these rules. A combination of growth increment allocation and emission reduction may be used to demonstrate compliance with this section. Those emission increases for which offsets can be found through the best efforts of the applicant shall not be eligible for a growth increment allocation.

(4) **Net Air Quality Benefit.** For cases in which emission reductions or offsets are required, the applicant must demonstrate that a net air quality benefit will be achieved in the affected area as described in OAR 340-20-260 (Requirements for Net Air Quality Benefit) and that the reductions are consistent with reasonable further progress toward attainment of the air quality standards.

(5) **Alternative Analysis:**

(a) An alternative analysis must be conducted for new major sources or major modifications of sources emitting volatile organic compounds or carbon monoxide locating in nonattainment areas.

(b) This analysis must include an evaluation of alternative sites, sizes, production processes, and environmental control techniques for such proposed source or modification which demonstrates that benefits of the proposed source or modification significantly outweigh the environmental and social costs imposed as a result of its location, construction or modification.

(6) **Special Exemption for the Salem Ozone Nonattainment Area.** Proposed major sources and major modifications of sources of volatile organic compounds which are located in the Salem Ozone nonattainment area shall comply with the requirements of sections (1) and (2) of this rule but are exempt from all other sections of this rule.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83

**Growth Increments**

**340-20-241** The ozone control strategies for the Medford-Ashland and Portland ozone nonattainment areas

establish growth margins for new major sources or major modifications which will emit volatile organic compounds. The growth margin shall be allocated on a first-come-first-served basis depending on the date of submittal of a complete permit application. No single source shall receive an allocation of more than 50% of any remaining growth margin. The allocation of emission increases from the growth margins shall be calculated based on the ozone season (April 1 to October 31 of each year). The amount of each growth margin that is available is defined in the **State Implementation Plan** for each area and is on file with the Department.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 5-1983, f. & ef. 4-18-83

**Requirements for Sources in Attainment or Unclassified Areas (Prevention of Significant Deterioration)**

**340-20-245** New Major Sources or Major Modifications locating in areas designated attainment or unclassifiable shall meet the following requirements:

(1) **Best Available Control Technology.** The owner or operator of the proposed major source or major modification shall apply best available control technology (BACT) for each pollutant which is emitted at a significant emission rate (OAR 340-20-225 definition (22)). In the case of a major modification, the requirement for BACT shall apply only to each new or modified emission unit which increases emissions. For phased construction projects, the determination of BACT shall be reviewed at the latest reasonable time prior to commencement of construction of each independent phase.

(2) **Air Quality Analysis:**

(a) The owner or operator of the proposed major source or major modification shall demonstrate that the potential to emit any pollutant at a significant emission rate (OAR 340-20-225 definition (22)), in conjunction with all other applicable emissions increases and decreases, (including secondary emissions), would not cause or contribute to air quality levels in excess of:

(A) Any state or national ambient air quality standard;

or

(B) Any applicable increment established by the Prevention of Significant Deterioration requirements (OAR 340-31-110); or

(C) An impact on a designated nonattainment area greater than the significant air quality impact levels (OAR 340-20-225 definition (23)). New sources or modifications of sources which would emit volatile organic compounds which may impact the Salem ozone nonattainment area are exempt from this requirement.

(b) Sources or modifications with the potential to emit at rates greater than the significant emission rate but less than 100 tons/year, and are greater than 50 kilometers from a nonattainment area are not required to assess their impact on the nonattainment area.

(c) If the owner or operator of a proposed major source or major modification wishes to provide emission offsets such that a net air quality benefit as defined in OAR 340-20-260 is provided, the Department may consider the requirements of section (2) of this rule to have been met.

OREGON ADMINISTRATIVE RULES  
CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY

(3) Exemption for Sources Not Significantly Impacting Designated Nonattainment Areas:

(a) A proposed major source or major modification is exempt from OAR 340-20-220 to 340-20-270 if:

(A) The proposed source or major modification does not have a significant air quality impact on a designated nonattainment area; and

(B) The potential emissions of the source are less than 100 tons/year for sources in the following categories or less than 250 tons/year for sources not in the following source categories:

- (i) Fossil fuel-fired steam electric plants of more than 250 million BTU/hour heat input,
- (ii) Coal cleaning plants (with thermal dryers),
- (iii) Kraft pulp mills,
- (iv) Portland cement plants,
- (v) Primary Zinc Smelters,
- (vi) Iron and Steel Mill Plants,
- (vii) Primary aluminum ore reduction plants,
- (viii) Primary copper smelters,
- (ix) Municipal Incinerators capable of charging more than 250 tons of refuse per day,
- (x) Hydrofluoric acid plants,
- (xi) Sulfuric acid plants,
- (xii) Nitric acid plants,
- (xiii) Petroleum Refineries,
- (xiv) Lime plants,
- (xv) Phosphate rock processing plants,
- (xvi) Coke oven batteries,
- (xvii) Sulfur recovery plants,
- (xviii) Carbon black plants (furnace process),
- (xix) Primary lead smelters,
- (xx) Fuel conversion plants,
- (xxi) Sintering plants,
- (xxii) Secondary metal production plants,
- (xxiii) Chemical process plants,
- (xxiv) Fossil fuel fired boilers (or combinations thereof) totaling more than 250 million BTU per hour heat input,
- (xxv) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels,
- (xxvi) Taconite ore processing plants,
- (xxvii) Glass fiber processing plants,
- (xxviii) Charcoal production plants.

(b) Major modifications are not exempted under this section unless the source including the modifications meets the requirements of paragraphs (a)(A) and (B) above. Owners or operators of proposed sources which are exempted by this provision should refer to OAR 340-20-020 to 340-20-032 and OAR 340-20-140 to 340-20-185 for possible applicable requirements.

(4) Air Quality Models. All estimates of ambient concentrations required under these rules shall be based on the applicable air quality models, data bases, and other requirements specified in the "Guidelines on Air Quality Models" (OAQPS 1.2-080, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, April 1978). Where an air quality impact model specified in the "Guideline on Air Quality Models" is inappropriate, the model may be modified or another model substituted. Such a change must be subject to notice and opportunity for public comment and must receive approval of the Department and the Environmental Protection Agency. Methods like those outlined in the "Workbook

for the Comparison of Air Quality Models" (U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, May, 1978) should be used to determine the comparability of air quality models.

(5) Air Quality Monitoring:

(a)(A) The owner or operator of a proposed major source or major modification shall submit with the application, subject to approval of the Department, an analysis of ambient air quality in the area impacted by the proposed project. This analysis shall be conducted for each pollutant potentially emitted at a significant emission rate by the proposed source or modification. As necessary to establish ambient air quality, the analysis shall include continuous air quality monitoring data for any pollutant potentially emitted by the source or modification except for nonmethane hydrocarbons. Such data shall relate to, and shall have been gathered over the year preceding receipt of the complete application, unless the owner or operator demonstrates that such data gathered over a portion or portions of that year or another representative year would be adequate to determine that the source or modification would not cause or contribute to a violation of an ambient air quality standard or any applicable pollutant increment. Pursuant to the requirements of these rules, the owner or operator of the source shall submit for the approval of the Department, a preconstruction air quality monitoring plan.

(B) Air quality monitoring which is conducted pursuant to this requirement shall be conducted in accordance with 40 CFR 58 Appendix B, "Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring" and with other methods on file with the Department.

(C) The Department may exempt a proposed major source or major modification from monitoring for a specific pollutant if the owner or operator demonstrates that the air quality impact from the emissions increase would be less than the amounts listed below or that the concentrations of the pollutant in the area that the source or modification would impact are less than these amounts:

- (i) Carbon monoxide - 575 ug/m<sup>3</sup>, 8 hour average,
- (ii) Nitrogen dioxide - 14 ug/m<sup>3</sup>, annual average,
- (iii) Total suspended particulate - 10 ug/m<sup>3</sup>, 24 hour average,
- (iv) Sulfur dioxide - 13 ug/m<sup>3</sup>, 24 hour average,
- (v) Ozone - Any net increase of 100 tons/year or more of volatile organic compounds from a source or modification subject to PSD is required to perform an ambient impact analysis, including the gathering of ambient air quality data,
- (vi) Lead - 0.1 ug/m<sup>3</sup>, 24 hour average,
- (vii) Mercury - 0.25 ug/m<sup>3</sup>, 24 hour average,
- (viii) Beryllium - 0.0005 ug/m<sup>3</sup>, 24 hour average,
- (ix) Fluorides - 0.25 ug/m<sup>3</sup>, 24 hour average,
- (x) Vinyl chloride - 15 ug/m<sup>3</sup>, 24 hour average,
- (xi) Total reduced sulfur - 10 ug/m<sup>3</sup>, 1 hour average,
- (xii) Hydrogen sulfide - 0.04 ug/m<sup>3</sup>, 1 hour average,
- (xiii) Reduced sulfur compounds - 10 ug/m<sup>3</sup>, 1 hour average.

(b) The owner or operator of a proposed major source or major modification shall, after construction has been completed, conduct such ambient air quality monitoring as the Department may require as a permit condition to establish the effect which emissions of a pollutant (other than non-

**OREGON ADMINISTRATIVE RULES**  
**CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY**

methane hydrocarbons) may have, or is having, on air quality in any area which such emissions would affect.

**(6) Additional Impact Analysis:**

(a) The owner or operator of a proposed major source or major modification shall provide an analysis of the impairment to, soils and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial and other growth associated with the source or modification, the owner or operator may be exempted from providing an analysis of the impact on vegetation having no significant commercial or recreational value.

(b) The owner or operator shall provide an analysis of the air quality concentration projected for the area as a result of general commercial, residential, industrial and other growth associated with the major source or modification.

**(7) Sources Impacting Class I Areas:**

(a) Where a proposed major source or major modification impacts or may impact a Class I area, the Department shall provide written notice to the Environmental Protection Agency and to the appropriate Federal Land Manager within 30 days of the receipt of such permit application, at least 30 days prior to Department Public Hearings and subsequently, of any preliminary and final actions taken with regard to such application.

(b) The Federal Land Manager shall be provided an opportunity in accordance with OAR 340-20-230(3) to present a demonstration that the emissions from the proposed source or modification would have an adverse impact on the air quality related values (including visibility) of any federal mandatory Class I lands, notwithstanding that the change in air quality resulting from emissions from such source or modification would not cause or contribute to concentrations which would exceed the maximum allowable increment for a Class I area. If the Department concurs with such demonstration the permit shall not be issued.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84; DEQ 14-1985, f. & ef. 10-16-85

**Exemptions**

**340-20-250** (1) Resource recovery facilities burning municipal refuse and sources subject to federally mandated fuel switches may be exempted by the Department from requirements OAR 340-20-240 sections (3) and (4) provided that:

(a) No growth increment is available for allocation to such source or modification; and

(b) The owner or operator of such source or modification demonstrates that every effort was made to obtain sufficient offsets and that every available offset was secured.

NOTE: Such an exemption may result in a need to revise the State Implementation Plan to require additional control of existing sources.

(2) Temporary emission sources, which would be in operation at a site for less than two years, such as pilot plants and portable facilities, and emissions resulting from the construction phase of a new source or modification must comply with OAR 340-20-240(1) and (2) or OAR 340-20-245(1), whichever is applicable, but are exempt from the remaining requirements of OAR 340-20-240 and OAR

340-20-245 provided that the source or modification would impact no Class I area or no area where an applicable increment is known to be violated.

(3) Proposed increases in hours of operation or production rates which would cause emission increases above the levels allowed in an Air Contaminant Discharge Permit and would not involve a physical change in the source may be exempted from the requirement of OAR 340-20-245(1) (Best Available Control Technology) provided that the increases cause no exceedances of an increment or standard and that the net impact on a nonattainment area is less than the significant air quality impact levels. This exemption shall not be allowed for new sources or modifications that received permits to construct after January 1, 1978.

(4) Also refer to OAR 340-20-245(3) for exemptions pertaining to sources smaller than the Federal Size-Cutoff Criteria.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 25-1981, f. & ef. 9-8-81

**Baseline for Determining Credit for Offsets**

**340-20-255** The baseline for determining credit for emission offsets shall be the Plant Site Emission Limit established pursuant to OAR 340-20-300 to 340-20-320 or, in the absence of a Plant Site Emission Limit, the actual emission rate for the source providing the offsets. Sources in violation of air quality emission limitations may not supply offsets from those emissions which are or were in excess of permitted emission rates. Offsets, including offsets from mobile and area source categories, must be quantifiable and enforceable before the Air Contaminant Discharge Permit is issued and must be demonstrated to remain in effect throughout the life of the proposed source or modification.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 25-1981, f. & ef. 9-8-81

**Requirements for Net Air Quality Benefit**

**340-20-260** Demonstrations of net air quality benefit must include the following:

(1) A demonstration must be provided showing that the proposed offsets will improve air quality in the same geographical area affected by the new source or modification. This demonstration may require that air quality modeling be conducted according to the procedures specified in the "Guideline on Air Quality Models". Offsets for volatile organic compounds or nitrogen oxides shall be within the same general air basin as the proposed source. Offsets for total suspended particulate, sulfur dioxide, carbon monoxide and other pollutants shall be within the area of significant air quality impact.

(2) For new sources or modifications locating within a designated nonattainment area, the emission offsets must provide reductions which are equivalent or greater than the proposed increases. The offsets must be appropriate in terms of short term, seasonal, and yearly time periods to mitigate the impacts of the proposed emissions. For new sources or modifications locating outside of a designated nonattainment area which have a significant air quality impact (OAR 340-20-225 definition (23)) on the nonattainment area, the emission offsets must be sufficient to reduce impacts to levels below the significant air quality impact level within the nonattainment area. Proposed major sources or major modi-

**OREGON ADMINISTRATIVE RULES**  
**CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY**

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fication which emit volatile organic compounds and are located within 30 kilometers of an ozone nonattainment area shall provide reductions which are equivalent or greater than the proposed emission increases unless the applicant demonstrates that the proposed emissions will not impact the nonattainment area.

(3) The emission reductions must be of the same type of pollutant as the emissions from the new source or modification. Sources of respirable particulate (less than three microns) must be offset with particulate in the same size range. In areas where atmospheric reactions contribute to pollutant levels, offsets may be provided from precursor pollutants if a net air quality benefit can be shown.

(4) The emission reductions must be contemporaneous, that is, the reductions must take effect prior to the time of startup but not more than one year prior to the submittal of a complete permit application for the new source or modification. This time limitation may be extended as provided for in OAR 340-20-265 (Emission Reduction Credit Banking). In the case of replacement facilities, the Department may allow simultaneous operation of the old and new facilities during the startup period of the new facility provided that net emissions are not increased during that time period.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83

#### **Emission Reduction Credit Banking**

**340-20-265** The owner or operator of a source of air pollution who wishes to reduce emissions by implementing more stringent controls than required by a permit or by an applicable regulation may bank such emission reductions. Cities, counties or other local jurisdictions may participate in the emissions bank in the same manner as a private firm. Emission reduction credit banking shall be subject to the following conditions:

(1) To be eligible for banking, emission reduction credits must be in terms of actual emission decreases resulting from permanent continuous control of existing sources. The baseline for determining emission reduction credits shall be the actual emissions of the source or the Plant Site Emission Limit established pursuant to OAR 340-20-300 to 340-20-320.

(2) Emission reductions may be banked for a specified period not to exceed ten years unless extended by the Commission, after which time such reductions will revert to the Department for use in attainment and maintenance of air quality standards or to be allocated as a growth margin.

(3) Emission reductions which are required pursuant to an adopted rule shall not be banked.

(4) Permanent source shutdowns or curtailments other than those used within one year for contemporaneous offsets as provided in OAR 340-20-260(4) are not eligible for banking by the owner or operator but will be banked by the Department for use in attaining and maintaining standards. The Department may allocate these emission reductions as a growth increment. The one year limitation for contemporaneous offsets shall not be applicable to those shutdowns or curtailments which are to be used as internal offsets within a plant as part of a specific plan. Such a plan for use of internal offsets shall be submitted to the Department and receive written approval within one year of the permanent shutdown or curtailment. A permanent source shutdown or curtail-

ment shall be considered to have occurred when a permit is modified, revoked or expires without renewal pursuant to the criteria established in OAR 340-14-005 through 340-14-050.

(5) The amount of banked emission reduction credits shall be discounted without compensation to the holder for a particular source category when new regulations requiring emission reductions are adopted by the Commission. The amount of discounting of banked emission reduction credits shall be calculated on the same basis as the reductions required for existing sources which are subject to the new regulation. Banked emission reduction credits shall be subject to the same rules, procedures, and limitations as permitted emissions.

(6) Emission reductions must be in the amount of ten tons per year or more to be creditable for banking except as follows:

(a) In the Medford-Ashland AQMA emission reductions must be at least in the amount specified in Table 2 of OAR 340-20-225(20);

(b) In Lane County, the Lane Regional Air Pollution Authority may adopt lower levels.

(7) Requests for emission reduction credit banking must be submitted to the Department and must contain the following documentation:

(a) A detailed description of the processes controlled;

(b) Emission calculations showing the types and amounts of actual emissions reduced;

(c) The date or dates of such reductions;

(d) Identification of the probable uses to which the banked reductions are to be applied;

(e) Procedure by which such emission reductions can be rendered permanent and enforceable.

(8) Requests for emission reduction credit banking shall be submitted to the Department prior to or within the year following the actual emissions reduction. The Department shall approve or deny requests for emission reduction credit banking and, in the case of approvals, shall issue a letter to the owner or operator defining the terms of such banking. The Department shall take steps to insure the permanence and enforceability of the banked emission reductions by including appropriate conditions in Air Contaminant Discharge Permits and by appropriate revision of the State Implementation Plan.

(9) The Department shall provide for the allocation of the banked emission reduction credits in accordance with the uses specified by the holder of the emission reduction credits. When emission reduction credits are transferred, the Department must be notified in writing. Any use of emission reduction credits must be compatible with local comprehensive plans, Statewide planning goals, and state laws and rules.

Stat. Auth.: ORS Ch. 468

Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83

#### **Fugitive and Secondary Emissions**

**340-20-270** Fugitive emissions shall be included in the calculation of emission rates of all air contaminants. Fugitive emissions are subject to the same control requirements and analyses required for emissions from identifiable stacks or vents. Secondary emissions shall not be included in calculations of potential emissions which are made to determine if a proposed source or modification is major. Once a source or

OREGON ADMINISTRATIVE RULES  
CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY

modification is identified as being major, secondary emissions must be added to the primary emissions and become subject to these rules.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 25-1981, f. & ef. 9-8-81

**Stack Heights**

**340-20-275** [DEQ 25-1981, f. & ef. 9-8-81;  
Repealed by DEQ 5-1983,  
f. & ef. 4-18-83]

**Visibility Impact**

**340-20-276** New major sources or major modifications located in Attainment, Unclassified or Nonattainment Areas shall meet the following visibility impact requirements:

(1) Visibility impact analysis:

(a) The owner or operator of a proposed major source or major modification shall demonstrate that the potential to emit any pollutant at a significant emission rate (OAR 340-20-225, definition (22)) in conjunction with all other applicable emission increases or decreases (including secondary emissions) permitted since January 1, 1984, shall not cause or contribute to significant impairment of visibility within any Class I area. ~~Proposed sources which emit less than 250 tons/year of TSP, SO<sub>2</sub> or NO<sub>x</sub> and are located more than 30 Km from a Class I area are exempt from the requirements of this rule. eff. Oct 16, '85~~

(b) Proposed sources which are exempted under OAR 340-20-245(3), excluding paragraph (3)(a)(A) are not required to complete a visibility impact assessment to demonstrate that the sources do not cause or contribute to significant visibility impairment within a Class I area. The visibility impact assessment for sources exempted under this section shall be completed by the Department.

(c) The owner or operator of a proposed major source or major modification shall submit all information necessary to perform any analysis or demonstration required by these rules pursuant to OAR 340-20-230(1).

(2) Air quality models. All estimates of visibility impacts required under this rule shall be based on the models on file with the Department. Equivalent models may be substituted if approved by the Department. The Department will perform visibility modeling of all sources with potential emissions less than 100 tons/year of any individual pollutant and locating closer than 30 Km to a Class I area, if requested.

(3) Determination of significant impairment: The results of the modeling must be sent to the affected land managers and the Department. The land managers may, within 30 days following receipt of the source's visibility impact analysis, determine whether or not impairment of visibility in a Class I area would result. The Department will consider the comments of the Federal Land Manager in its consideration of whether significant impairment will result. Should the Department determine that impairment would result, a permit for the proposed source will not be issued.

(4) Visibility monitoring:

(a) The owner or operator of a proposed major source or major modification which emit more than 250 tons per year of TSP, SO<sub>2</sub> or NO<sub>x</sub> shall submit with the application, subject to approval of the Department, an analysis of visibility in or immediately adjacent to the Class I area impacted by the proposed project. As necessary to establish visibility condi-

tions within the Class I area, the analysis shall include a collection of continuous visibility monitoring data for all pollutants emitted by the source that could potentially impact Class I area visibility. Such data shall relate to and shall have been gathered over the year preceding receipt of the complete application, unless the owner or operator demonstrates that data gathered over a shorter portion of the year for another representative year, would be adequate to determine that the source of major modification would not cause or contribute to significant impairment. Where applicable, the owner or operator may demonstrate that existing visibility monitoring data may be suitable. Pursuant to the requirements of these rules, the owner or operator of the source shall submit, for the approval of the Department, a preconstruction visibility monitoring plan.

(b) The owner or operator of a proposed major source or major modification shall, after construction has been completed, conduct such visibility monitoring as the Department may require as a permit condition to establish the effect which emissions of pollutant may have, or is having, on visibility conditions with the Class I area being impacted.

(5) Additional impact analysis: The owner or operator of a proposed major source or major modification subject to OAR 340-20-245(6)(a) shall provide an analysis of the impact to visibility that would occur as a result of the source or modification and general commercial, residential, industrial, and other growth associated with the source or major modification.

(6) Notification of permit application:

(a) Where a proposed major source modification impacts or may impact visibility within a Class I area, the Department shall provide written notice to the Environmental Protection Agency and to the appropriate Federal Land Manager within 30 days of the receipt of such permit application. Such notification shall include a copy of all information relevant to the permit application, including analysis of anticipated impacts on Class I area visibility. Notification will also be sent at least 30 days prior to Department Public Hearings and subsequently of any preliminary and final actions taken with regard to such application.

(b) Where the Department receives advance notification of a permit application of a source that may affect Class I area visibility, the Department will notify all affected Federal Land Managers within 30 days of such advance notice.

(c) The Department will, during its review of source impacts on Class I area visibility pursuant to this rule, consider any analysis performed by the Federal Land Manager that is provided within 30 days of notification required by subsection (a) of this section. If the Department disagrees with the Federal Land Manager's demonstration, the Department will include a discussion of the disagreement in the Notice of Public Hearing.

(d) The Federal Land Manager shall be provided an opportunity in accordance with OAR 340-20-230(3) to present a demonstration that the emissions from the proposed source of modification would have an adverse impact on visibility of any Federal mandatory Class I lands, notwithstanding that the change in air quality resulting from emissions from such source of modification would not cause or contribute to concentrations which would exceed the maximum allowable increment for a Class I area. If the Depart-

OREGON ADMINISTRATIVE RULES  
CHAPTER 340, DIVISION 20 - DEPARTMENT OF ENVIRONMENTAL QUALITY

ment concurs with such demonstration, the permit shall not be issued.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 18-1984, f. & ef. 10-16-84; DEQ 14-1985, f. & ef. 10-16-85

#### Plant Site Emission Limits

##### Policy

**340-20-300** The Commission recognizes the need to establish a more definitive method for regulating increases and decreases in air emissions of air quality permit holders as contained in OAR 340-20-301 through 340-20-320. However, by the adoption of these rules, the Commission does not intend to: limit the use of existing production capacity of any air quality permittee; cause any undue hardship or expense to any permittee due to the utilization of existing unused productive capacity; or create inequity within any class of permittees subject to specific industrial standards which are based on emissions related to production. PSELs can be established at levels higher than baseline provided a demonstrated need exists to emit at a higher level and PSD increments and air quality standards would not be violated and reasonable further progress in implementing control strategies would not be impeded.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 25-1981, f. & ef. 9-8-81

##### Requirement for Plant Site Emission Limits

**340-20-301** (1) Plant site emission limits (PSEL) shall be incorporated in all Air Contaminant Discharge Permits except minimal source permits and special letter permits as a means of managing airshed capacity. All sources subject to regular permit requirements shall be subject to PSELs for all federal and state regulated pollutants. PSELs will be incorporated in permits when permits are renewed, modified, or newly issued.

(2) The emissions limits established by PSELs shall provide the basis for:

(a) Assuring reasonable further progress toward attaining compliance with ambient air standards.

(b) Assuring that compliance with ambient air standards and Prevention of Significant Deterioration increments are being maintained.

(c) Administering offset, banking and bubble programs.

(d) Establishing the baseline for tracking consumption of Prevention of Significant Deterioration Increments.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 25-1981, f. & ef. 9-8-81

##### Definitions

**340-20-305** (1) "Actual Emissions" means the mass rate of emissions of a pollutant from an emissions source:

(a) In general, actual emissions as of the baseline period shall equal the average rate at which the source actually emitted the pollutant during a baseline period and which is representative of normal source operation. Actual emissions shall be calculated using the source's actual operating hours, production rates and types of materials processed, stored, or combusted during the selected time period.

(b) The Department may presume that existing source-specific permitted mass emissions for the source are equiv-

alent to the actual emissions of the source if they are within 10% of the calculated actual emissions.

(c) For any newly permitted emissions source which had not yet begun normal operation in the baseline period, actual emissions shall equal the potential to emit of the source.

(2) "Baseline Emission Rate" means the average actual emission rate during the baseline period. Baseline emission rate shall not include increases due to voluntary fuel switches or increased hours of operation that have occurred after the baseline period.

(3) "Baseline Period" means either calendar years 1977 or 1978. The Department shall allow the use of a prior time period upon a determination that it is more representative of normal source operation.

(4) "Normal Source Operation" means operations which do not include such conditions as forced fuel substitution, equipment malfunction, or highly abnormal market conditions.

(5) "Plant Site Emission Limit (PSEL)" means the total mass emissions per unit time of an individual air pollutant specified in a permit for a source.

Stat. Auth.: ORS Ch. 468  
Hist.: DEQ 25-1981, f. & ef. 9-8-81

##### Criteria for Establishing Plant Site Emission Limits

**340-20-310** (1) For existing sources, PSELs shall be based on the baseline emission rate for a particular pollutant at a source and shall be adjusted upward or downward pursuant to Department Rules:

(a) If an applicant requests that the Plant Site Emission Limit be established at a rate higher than the baseline emission rate, the applicant shall:

(A) Demonstrate that the requested increase is less than the significant emission rate increase defined in OAR 340-20-225(22); or

(B) Provide an assessment of the air quality impact pursuant to procedures specified in OAR 340-20-240 to 340-20-245. A demonstration that no air quality standard or PSD increment will be violated in an attainment area or that a growth increment or offset is available in a nonattainment area shall be sufficient to allow an increase in the Plant Site Emission Limit to an amount not greater than the plant's demonstrated need to emit as long as no physical modification of an emissions unit is involved.

(b) Increases above baseline emission rates shall be subject to public notice and opportunity for public hearing pursuant to the Department's permit requirements.

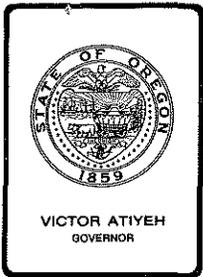
(2) PSELs shall be established on at least an annual emission basis and a short term period emission basis that is compatible with source operation and air quality standards.

(3) Mass emission limits may be established separately within a particular source for process emissions, combustion emissions, and fugitive emissions.

(4) Documentation of PSEL calculations shall be available to the permittee.

(5) For new sources, PSELs shall be based on application of applicable control equipment requirements and projected operating conditions.

(6) PSELs shall not allow emissions in excess of those allowed by any applicable federal or state regulation or by any specific permit condition unless specific provisions of OAR 340-20-315 are met.



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item F, October 24, 1986, EQC Meeting

Proposed Adoption of the Grants Pass Carbon Monoxide Control Strategy as a Revision to the State Implementation Plan (OAR 340-20-047, Section 4.11)

### BACKGROUND

The federal Clean Air Act requires States to submit plans to demonstrate how they will attain and maintain compliance with national ambient air quality standards for those areas designated as "nonattainment." The Environmental Quality Commission designated a portion of the City of Grants Pass as a nonattainment area for carbon monoxide (CO) on November 2, 1984. Subsequently, the U.S. Environmental Protection Agency (EPA) designated the Grants Pass CO nonattainment area in the December 16, 1985 Federal Register.

A carbon monoxide control plan for the Grants Pass area must be submitted to EPA by December 16, 1986 (12 months after EPA designation). The plan must be adequate to meet air quality standards by December 1990 (5 years after EPA designation).

Governor Victor Atiyeh appointed the City of Grants Pass as the lead agency responsible for the preparation and implementation of the control plan in May 1985. A proposed carbon monoxide control strategy was completed in May 1986 by staffs of the City of Grants Pass and Rogue Valley Council of Governments, with the assistance of Josephine County and the Oregon Departments of Transportation and Environmental Quality. The control strategy was adopted by the City of Grants Pass on June 4, 1986 and forwarded to the Environmental Quality Commission for inclusion in the State Implementation Plan (SIP).

ORS 468.305 authorizes the Commission to prepare and develop a comprehensive plan for the control of air pollution. Attachment 1 contains the Statements of Need for Rulemaking, Fiscal and Economic Impact, and Land Use

Consistency. Attachment 2 contains the carbon monoxide control strategy as adopted by the City of Grants Pass. Attachment 3 contains the lead agency designation.

A public hearing was held in Grants Pass on September 15, 1986 as authorized by the Commission at the July 25, 1986 EQC meeting. The public hearing notice was published in the Secretary of State Bulletin and in the Oregonian and Grants Pass Daily Courier newspapers on August 15, 1986. The public hearing is summarized in the Hearing Officer Report (Attachment 4).

The proposed action was distributed for intergovernmental review on August 19, 1986. The responses are included in Attachment 5.

### EVALUATION AND ALTERNATIVES

#### Grants Pass Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless, tasteless gas. In the body, CO binds tightly to hemoglobin (the red pigment in blood that moves oxygen from the lungs to the rest of the body). Once hemoglobin is bound to CO, it can no longer carry oxygen. In this way, CO reduces the oxygen-carrying capacity of the blood and can have adverse health effects.

Carbon monoxide (CO) concentrations in Grants Pass during 1983-85 were substantially above the 8-hour carbon monoxide health standard. CO levels must be reduced by about 30 percent to meet the health standard in Grants Pass by December 1990.

Motor vehicles are the major source of CO. How a motor vehicle is operated has an effect on the amount of CO emitted. At idle and low vehicle speed, CO emissions are high. Emissions are also increased when the outside temperature is low. The most serious CO problems in Grants Pass occur during stagnant winter weather in areas of heavy traffic congestion.

#### Alternative Transportation Improvements

A number of potential transportation improvement projects were evaluated and prioritized in a Roadway and Traffic Safety Management Plan for the City of Grants Pass in 1981. Although the primary criteria for prioritizing these projects were safety improvement, congestion reduction and energy conservation, some of these projects would also have air quality benefits.

A technical advisory committee grouped the potential projects into eight alternative 1990 transportation improvement scenarios. The technical advisory committee was made up of representatives of the City of Grants Pass, Josephine County, Rogue Valley Council of Governments, Oregon Department of Transportation, and Oregon Department of Environmental Quality. The following alternatives were evaluated:

- o Alternative 0: No Build
- o Alternative 1: Committed Projects Only (J and Mill St. Improvements)
- o Alternative 2: Committed & Agness Extension
- o Alternative 3: Committed & Third (East) Bridge
- o Alternative 4: Committed & Fourth (West) Bridge
- o Alternative 5: Committed & 4th/9th St. Improvements
- o Alternative 6: Committed & Signal Rehabilitation
- o Alternative 7: Third Bridge Only

The results of the traffic and air quality analyses are outlined in the following table. The speed units are miles-per-hour (mph), the traffic units are vehicle-miles-travelled (vmt), the emissions units are kilograms (kg) of carbon monoxide, and the ambient carbon monoxide units are milligrams per cubic meter. The two most critical intersections are located at 6th and F Streets and at 7th and M Streets.

Table 1. Peak 8-Hour Traffic and Air Quality Results.

Alternative	Speed (mph)	Traffic (VMT)	Emissions (kg)	Carbon Monoxide Level (mg/m <sup>3</sup> )	
				6th & F	7th & M
1984 Base	17.9	26,440	1,791	13.2*	12.0*
1990 Alt 0	16.6	28,486	1,557	11.3*	11.7*
1990 Alt 1	16.6	28,644	1,573	11.3*	11.0*
1990 Alt 2	17.5	26,768	1,399	10.1*	11.3*
1990 Alt 3	19.7	20,078	942	7.6	6.3
1990 Alt 4	17.6	27,103	1,407	10.6*	9.3
1990 Alt 5	17.9	24,813	1,296	8.1	13.5*
1990 Alt 6	17.1	28,644	1,525	10.5*	11.0*
1990 Alt 7	19.8	19,786	920	7.6	6.6

\*Violation of CO standard (10 milligrams per cubic meter).

The third bridge across the Rogue River was the only transportation improvement project identified that was adequate to attain the CO health standard by December 1990 and maintain the standard in subsequent years. It is possible that one of the other transportation alternatives would be adequate to meet the standard by 1990 if combined with an automobile inspection and maintenance (I/M) program. But an I/M program, while proven effective in reducing CO emissions, would not reduce the serious traffic congestion problems identified in Grants Pass. Traffic congestion is expected to worsen with growth in population, employment and traffic. The projected 1995 traffic volumes and speeds without the third bridge indicate that CO violations would again occur in 1995 even with I/M due to the existing bottleneck problem at the Rogue River crossing.

### Proposed Control Strategy

The CO control strategy adopted by the City of Grants Pass on June 4, 1986 (Attachment 2) is the combination of the federal new car emission control program (requiring progressively more effective pollution control equipment on newer motor vehicles) and the construction of the third bridge. The Oregon Department of Transportation (ODOT) included the third bridge project in the Six-Year (1987-1992) Highway Improvement Program adopted by the Oregon Transportation Commission on July 22, 1986.

The third bridge is proposed for construction beginning sometime after October 1988. The project is to be financed using State Modernization Funds at an estimated cost of \$16 million (1987 dollars).

The selected CO control strategy will substantially reduce traffic congestion and CO concentrations in the Grants Pass downtown area. CO emissions are projected to decrease by almost 50 percent between 1984 and 1990. The peak 8-hour CO concentration is projected to decrease to less than 8 milligrams per cubic meter by 1990, well below the 10 milligrams per cubic meter CO health standard.

Funding is uncertain for the other projects prioritized in the Grants Pass Roadway and Traffic Safety Management Plan. If funded and constructed, none of these projects would interfere (and some would help) with attainment of the CO standard in Grants Pass.

### Public Hearing and Intergovernmental Review

The testimony at the September 15, 1986 public hearing is reviewed in the Hearing Officer Report (Attachment 4). The testimony, provided by seven persons, was generally supportive. The proposed action was supported not only for the stated reason of air pollution and traffic congestion reduction, but also for safety and economic development reasons. Specific issues of concern are addressed below.

Automobile I/M Program One person indicated that an I/M program is not necessary in the Grants Pass area. The Department concurs. An I/M program is not proposed in the CO control plan.

Bridge Access One person recommended that access be provided to the proposed third bridge at M and Park Streets. The Environmental Impact Statement prepared by ODOT indicates that bridge access would be provided near these streets as part of the proposed third bridge project.

Wood Products Industry and Slash Burning One person expressed concern about air pollution from wood products mills and forest slash burning. These are significant air pollution sources, especially of particulate emissions. But the carbon monoxide problem addressed by the proposed plan is caused primarily by motor vehicle exhaust. About 85% of the CO concentration in the downtown problem area is from automobiles and

trucks. The second largest CO source is residential woodburning in woodstoves and fireplaces. Particulate emissions from the wood products industry and forest slash burning, as well as from residential woodburning, will need to be carefully evaluated as part of the fine particulate (PM-10) control plan for Oregon communities. This work is scheduled for next year, following adoption of a federal PM-10 standard (expected in early 1987).

The Rogue Valley Council of Governments reviewed the broad community support for the third bridge as evidenced in the public hearings on the Six-Year Highway Improvement Program. No negative comments were received in the intergovernmental review process.

#### SUMMATION

1. A portion of the City of Grants Pass was designated as a carbon monoxide nonattainment area by the Commission in November 1984, and by the U.S. Environmental Protection Agency (EPA) in December 1985. Carbon monoxide concentrations in Grants Pass during 1983-85 were about 30 percent above state and federal standards.
2. The federal Clean Air Act requires that a carbon monoxide control plan for the Grants Pass area be submitted to EPA by December 16, 1986. The plan must be adequate to meet air quality standards by December 1990.
3. The City of Grants Pass was appointed as the lead agency responsible for the preparation and implementation of the control plan by Governor Victor Atiyeh in May 1985.
4. A proposed carbon monoxide control strategy was completed by staff of the City of Grants Pass and Rogue Valley Council of Governments, with the assistance of Josephine County and the Oregon Departments of Transportation and Environmental Quality, in May 1986. The control strategy was adopted by the City of Grants Pass on June 4, 1986 and forwarded to the Commission for inclusion in the State Implementation Plan.
5. The Grants Pass carbon monoxide control strategy includes the construction of a third bridge over the Rogue River and continuation of the federal new car emission control program. The third bridge would reduce carbon monoxide emissions and traffic congestion in the downtown nonattainment area by diverting traffic around the problem area. The federal new car program would continue to reduce carbon monoxide emissions due to normal replacement of existing cars with newer cars with more effective pollution control equipment.
6. The control strategy is projected to reduce carbon monoxide emissions by about 50 percent and reduce carbon monoxide concentrations to well within state and federal standards by December 1990.

7. The Oregon Department of Transportation included the third bridge project in the Six-Year Highway Improvement Program adopted by the Oregon Transportation Commission on July 22, 1986.
8. A public hearing was held in Grants Pass on September 15, 1986, as summarized in the Hearing Officer Report. Testimony generally supported the proposed action.

DIRECTOR'S RECOMMENDATION

Based on the Summation, the Director recommends that the Commission adopt the Grants Pass Carbon Monoxide Control Strategy as a revision to the State Implementation Plan (OAR 340-20-047, Section 4.11).



Fred Hansen

Attachments:

1. Notice of Public Hearing and Statements of Need for Rulemaking, Fiscal and Economic Impact, and Land Use Consistency.
2. Proposed Grants Pass Carbon Monoxide Control Strategy as a Revision to the State Implementation Plan.
3. Acceptance of Lead Agency Responsibility by the City of Grants Pass and Designation of Grants Pass as the Lead Agency by Governor Atiyeh.
4. Hearing Officer Report on September 15, 1986 Public Hearing in Grants Pass.
5. Intergovernmental Review Distribution and Responses.

Merlyn Hough:a  
AA5515  
229-6446  
September 26, 1986

*Oregon Department of Environmental Quality*

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

**Proposed Carbon Monoxide Control Strategy for Grants Pass  
NOTICE OF PUBLIC HEARING**

Date Prepared: 06/18/86  
Hearing Date: 09/15/86  
Comments Due: 09/19/86

**WHO IS  
AFFECTED:**

Residents, businesses, and government agencies in the City of Grants Pass and Josephine County.

**WHAT IS  
PROPOSED:**

The Department of Environmental Quality is proposing to amend OAR 340-20-047, the Oregon Clean Air Act State Implementation Plan, by including the Grants Pass Carbon Monoxide Control Strategy. A hearing on this matter will be held in Grants Pass on September 15, 1986.

**WHAT ARE THE  
HIGHLIGHTS:**

Carbon monoxide (CO) concentrations in downtown Grants Pass violate state and federal ambient air quality standards. The federal Clean Air Act requires States to submit plans for nonattainment areas demonstrating how they will attain ambient air quality standards.

This proposal would incorporate the Grants Pass Carbon Monoxide Control Strategy, that was adopted by the City of Grants Pass on June 4, 1986, into the State Implementation Plan. The major element of the control strategy is the construction of a third bridge across the Rogue River to reduce traffic congestion and CO emissions in the downtown nonattainment area.

**HOW TO  
COMMENT:**

Copies of the complete proposed rule package may be obtained from the Air Quality Division in Portland (522 S.W. Fifth Avenue) or the regional office nearest you. For further information contact Merlyn L. Hough at 229-6446 (or toll-free at 1-800-452-4011).

A public hearing will be held before a hearings officer at:

7:00 p.m. on September 15, 1986  
Grants Pass City Council Chambers  
101 NW A Street  
Grants Pass, Oregon

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ Air Quality Division, P.O. Box 1760, Portland, OR 97207, but must be received by no later than September 19, 1986.



P.O. Box 1760  
Portland, OR 97207

8/16/84

**FOR FURTHER INFORMATION:**

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

**WHAT IS THE  
NEXT STEP:**

After public hearing the Environmental Quality Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted rules will be submitted to the U. S. Environmental Protection Agency as part of the State Clean Air Act Implementation Plan. The Commission's deliberation should come on October 24, 1986 as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need, Fiscal and Economic Impact Statement, and Land Use Consistency Statement are attached to this notice.

AS277

## RULEMAKING STATEMENTS

### for Proposed Carbon Monoxide Control Strategy for Grants Pass

Pursuant to ORS 183.335, these statements provide information on the intended action to amend a rule.

#### STATEMENT OF NEED:

##### Legal Authority

This proposal amends OAR 340-20-047. It is proposed under authority of ORS 468.305.

##### Need for the Rule

Carbon monoxide (CO) concentrations in downtown Grants Pass violate state and federal ambient air quality standards. The federal Clean Air Act requires states to submit plans for nonattainment areas demonstrating how they will attain ambient air quality standards.

##### Principal Documents Relied Upon

Clean Air Act as Amended (P.L. 97-95) August 1977. DEQ Air Quality Annual Reports. Carbon Monoxide Plan adopted June 4, 1986 by City of Grants Pass. Final Environmental Impact Statement, Grants Pass Third Bridge, ODOT.

#### FISCAL AND ECONOMIC IMPACT STATEMENT:

The major element of the proposed control strategy is the construction of a third bridge across the Rogue River. Construction of the third bridge is scheduled in the Oregon Department of Transportation's Six-Year (1987-1992) Highway Improvement Program for federal fiscal year 1989. Construction and right-of-way are to be financed by State Modernization Funds at an estimated cost of \$15 million (1987 dollars). This project would benefit regional income in the Grants Pass area during and immediately after the construction period by an estimated \$27 million due to the multiplier effect (multiplier of about 1.8 for this type of project in a community the size of Grants Pass).

Some small businesses would increase sales and others would lose sales as a result of this project. Overall sales would likely increase. Travel-oriented development would occur along the E-F couplet and at the east interchange and would more than offset a decrease in travel-oriented activity along 6th and 7th Streets. Improved access and lower congestion would encourage shopping in the central business district.

Several businesses located near the proposed bridge crossing site would be substantially affected as discussed in the environmental impact statement. Right-of-way impacts for those property owners who have property taken, displaced, or have access restricted would be mitigated in part by direct monetary compensation.

LAND USE CONSISTENCY STATEMENT:

The Proposed rule appears to affect land use and appears to be consistent with the Statewide Planning Goals.

With regard to Goal 6 (air, water, and land resources quality) the rules are designed to enhance and preserve air quality in the affected area and are considered consistent with the goal.

Goal 11 (public facilities and services) is deemed unaffected by the rule. The rule does not appear to conflict with other goals.

Public comment on any land use issue involved is welcome and may be submitted in the same fashions as are indicated for testimony in this notice.

It is requested that local, state, and federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and with Statewide Planning Goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any apparent conflict brought to our attention by local, state, or federal authorities.

AS278

State of Oregon  
Clean Air Act Implementation Plan  
Section 4.11

**PROPOSED  
GRANTS PASS  
CARBON MONOXIDE  
CONTROL STRATEGY**

City of Grants Pass  
Department of Environmental Quality

June 1986

RESOLUTION NO. 1887

A RESOLUTION TO ADOPT THE GRANTS PASS CARBON MONOXIDE PLAN.

WHEREAS, the City of Grants Pass was designated as the lead agency by the U.S. Environmental Protection Agency for the development of revisions to the State Implementation Plan for carbon monoxide; and

WHEREAS, a plan has been developed which demonstrates compliance with the primary health standards for carbon monoxide by no later than December 16, 1990; and

WHEREAS, the plan's selected carbon monoxide control strategy for the Grants Pass non-attainment area is the combination of the federal new car emission control program and the construction of the third bridge (alternative 7); and

WHEREAS, the construction of the third bridge is a reasonable assumption based on the State Department of Transportation's draft 6-year Highway Improvement Program;

NOW, THEREFORE, BE IT RESOLVED that the Council of the City of Grants Pass does hereby adopt the Grants Pass Carbon Monoxide Plan, dated May, 1986;

BE IT FURTHER RESOLVED that the City Manager is directed to submit the plan to the Oregon Environmental Quality Commission for its consideration and forwarding to the Environmental Protection Agency.

PASSED by the Council of the City of Grants Pass, Oregon, this 4th day of June, 1986.

SUBMITTED to and approved by the Mayor of the City of Grants Pass, Oregon, this 10th day of June, 1986.



Jane Reynolds  
Mayor

AIR QUALITY CONTROL

ATTEST:

ITEM: Resolution adopting the Grants Pass  
Carbon Monoxide Plan

---

DATE: June 4, 1986

BACKGROUND:

The Grants Pass area was designated as a "non-attainment" area for carbon monoxide by the Environmental Quality Commission on November 2, 1984. The City was designated to be the lead agency for the development of a State Implementation Plan for carbon monoxide, as required under the Clean Air Act amendments of 1977. The City, utilizing funds from a grant from the Environmental Protection Agency, contracted with the Rogue Valley Council of Governments to prepare the Carbon Monoxide Plan. That plan has been completed, and was distributed for the Council's review and adoption.

The implementation plan's strategy for relieving the carbon monoxide problem is to construct the third bridge. Funding for the construction of the third bridge is included in the Oregon Department of Transportation's Statewide Highway Modernization Program, with construction scheduled to begin sometime after October of 1988.

Once the Council adopts the state implementation plan, it will be forwarded to the Department of Environmental Quality Commission for its adoption and then to the Environmental Protection Agency for final adoption.

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CONCLUSION:

The Carbon Monoxide Plan meets the requirements of the Environmental Protection Agency in terms of demonstrating how the national ambient air standards for those areas designated as "non-attainment" will be attained and maintained. The option recommended by the plan (alternative 7: Third Bridge only) is a realistic carbon monoxide control strategy based on the combination of the federal new car emission control program in the planned construction of the third bridge. Therefore, it is very likely that the Environmental Protection Agency will accept the plan, and further, it is very likely that carbon monoxide levels will be reduced to below the national carbon monoxide health standard by December of 1990.

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RECOMMENDATION:

It is recommended by the Air Quality Policy Advisory Committee and the staff that the Council adopt the Grants Pass Carbon Monoxide Plan by passing the Resolution attached hereto.

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G R A N T S   P A S S   C A R B O N   M O N O X I D E  
P L A N

Prepared by:

ROGUE VALLEY COUNCIL OF GOVERNMENTS

In Cooperation with:

CITY OF GRANTS PASS  
(Lead Agency)

JOSEPHINE COUNTY

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

OREGON DEPARTMENT OF TRANSPORTATION

...

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RECEIVED  
JUN 20 1985  
AIR QUALITY CONTROL

Prepared Under a Grant From:

THE ENVIRONMENTAL PROTECTION AGENCY

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TABLE OF CONTENTS

SECTION #	SECTION TITLE	PAGE #
4.11.0	GRANTS PASS NONATTAINMENT AREA - STATE IMPLEMENTATION PLAN FOR CARBON MONOXIDE	
4.11.0.1	Introduction	1
4.11.0.2	Summary	2
4.11.0.3	Clean Air Act	3
4.11.0.4	Air Quality Standards	4
4.11.0.5	Relationship between State SIP and Local Planning	5
4.11.1	AMBIENT AIR QUALITY	
4.11.1.1	Geographic Description	6
4.11.1.2	Ambient Monitoring Data	8
4.11.1.3	Nonattainment Area Boundaries	11
4.11.2	EMISSION INVENTORY	
4.11.2.1	Urban Area Emission Inventories	13
4.11.2.2	Nonattainment Area Emission Inventories	14
4.11.2.3	Design Concentrations	15
4.11.2.4	Growth Factors	16
4.11.3	CONTROL STRATEGY	
4.11.3.1	Emission Reduction Necessary	17
4.11.3.2	Evaluation of Alternative Transportation Improvements	18
4.11.3.3	Transportation Measures Not Utilized	19
4.11.3.4	Impacts of Control Strategy	23
4.11.4	RULES, REGULATIONS, AND COMMITMENTS	26
4.11.5	REASONABLE FURTHER PROGRESS	27
4.11.6	RESOURCE COMMITMENT	28
4.11.7	PUBLIC INVOLVEMENT	29
Appendix 4.11-1	Lead Agency Designation	
Appendix 4.11-2	Designation of Grants Pass Nonattainment Area	
Appendix 4.11-3	1980 & 1990 Dwelling Unit and Employment Data	
Appendix 4.11-4	Transportation System Modeling	
Appendix 4.11-5	Carbon Monoxide Design Concentration	
Appendix 4.11-6	Required Carbon Monoxide Emission Reduction	
Appendix 4.11-7	Carbon Monoxide Emission Inventories	
Appendix 4.11-8	Air Quality Modeling	

4.11.0 GRANTS PASS NONATTAINMENT PLAN - STATE IMPLEMENTATION PLAN  
FOR CARBON MONOXIDE

4.11.0.1 Introduction

The Clean Air Act Amendments of 1977 require states to submit plans to demonstrate how they will attain and maintain compliance with national ambient air standards for those areas designated as "nonattainment". The Grants Pass area was designated "nonattainment" for carbon monoxide by the Environmental Quality Commission on November 2, 1984. In accordance with Section 174 of the Clean Air Act Amendments of 1977, Governor Victor Atiyeh designated the City of Grants Pass on May 20, 1985 as the lead agency for the development of revisions to the State Implementation Plan for carbon monoxide. Subsequently, the U.S. Environmental Protection Agency designated the Grants Pass area nonattainment for carbon monoxide in the December 16, 1985 Federal Register.

The U.S. Environmental Protection Agency in a January 27, 1984 document issued general guidance for areas designated nonattainment after July 1, 1979. Based on that document, the City of Grants Pass is required to have a plan demonstrating compliance with the primary health standards for carbon monoxide by no later than December 16, 1990, which is five years from the date of nonattainment designation.

To do the necessary planning work, the City of Grants Pass accepted on July 31, 1985 a U.S. Environmental Protection Agency grant award of \$20,000. In a cooperative effort involving the Rogue Valley Council of Governments, Josephine County, the Oregon Department of Transportation and the Oregon Department of Environmental Quality, interagency work agreements were finalized in August 1985. It was agreed that the Rogue Valley Council of Governments would have the primary responsibility for writing the carbon monoxide plan. Work on the analysis of transportation control measures began in November 1985.

#### 4.11.0.2 Summary

Carbon monoxide (CO) concentrations in Grants Pass during 1983-85 were about 30 percent above the 8-hour carbon monoxide health standard. CO levels must be reduced to meet the health standard in Grants Pass by December 1990.

Automobiles and trucks contributed about 75 percent of the CO emissions in the Grants Pass urban area and caused about 85 percent of the CO concentration in the Grants Pass downtown area in 1984. If traffic volumes remained constant between 1984 and 1990, then automobile/truck emissions in Grants Pass would decrease by about 25 percent due to newer cars (with more effective pollution control equipment as required by the federal new car emission control program) replacing older cars. However, highway CO emissions are expected to decrease by only 12 percent due to increasing traffic volume and decreasing traffic speed, both of which tend to increase CO emissions.

Several transportation improvement scenarios were analyzed for effects on traffic and air quality. A 3rd bridge across the Rogue River was the only transportation improvement project identified that was adequate to attain the CO health standard by 1990.

The selected CO control strategy for the Grants Pass area is the combination of the federal new car emission control program and the construction of the 3rd bridge. The 3rd bridge project is being included in the Six Year Highway Improvement Program by the Oregon Department of Transportation.

The selected CO control strategy will substantially reduce traffic congestion and CO concentrations in the Grants Pass downtown area. CO emissions are projected to decrease by almost 50 percent between 1984 and 1990. The peak 8-hour CO concentration is projected to decrease to less than 8 milligrams per cubic meter by 1990, well below the 10 milligrams per cubic meter CO health standard.

### 4.11.0.3 Clean Air Act

The Federal Clean Air Act, adopted in 1970 and amended in 1977, authorized the U.S. Environmental Protection Agency to determine what kinds of air pollutants are hazardous to public health and welfare, set standards for each, and cooperate with the states to enforce these standards. The Act further established time-lines for reaching these standards in communities where pollutants were found in excessive concentrations.

The time-frame for "newly designated areas" is shown below with specific dates applicable to Grants Pass.

<u>ACTIVITY</u>	<u>TIME FRAME</u>	<u>DATE</u>
1) Designated Nonattainment	Date of Federal Register Designation	December, 1985
2) State Implementation Plan (SIP) Submitted to EPA	Designation plus 12 months	December, 1986
3) EPA process SIP	Designation plus 18 months	June, 1987
4) Attainment Date	Designation plus 5 years	December, 1990

States are required to inventory all sources of air pollution in "nonattainment" areas (communities which exceed the standards). Under the Act, States are responsible for the development and implementation of abatement plans. These plans are a compilation of plans for various communities within a state's boundaries and are collectively referred to as the State Implementation Plan (SIP).

Under the time-line described above, the City of Grants Pass, as the designated lead agency (see Appendix 4.11-1 for copy of EPA designation), must submit its Plan for consideration by the Oregon Environmental Quality Commission (EQC) by July, 1986. The EQC must, in turn, complete their review and forward the amendment to the Environmental Protection Agency by December, 1986.

#### 4.11.0.4 Air Quality Standards

The Clean Air Act provides for two kinds of standards: "primary," to protect human health, and "secondary," to protect the welfare and property. Only particulate and sulfur dioxide have both primary and secondary standards. The federal standards do not vary from one part of the nation to another. There is but one set of standards. States can adopt more stringent standards, but for carbon monoxide the Oregon and federal standard are essentially identical.

The carbon monoxide standard<sup>1</sup> is designed to provide a benchmark for determining what levels of CO pollution can occur without adversely affecting human health. While each community has very unique characteristics affecting the production, accumulation and dispersion of air pollutants, the adverse health affects experienced by the population within these communities when exposed to high levels of pollution is virtually identical. The standard for CO is based upon health considerations not property damage or welfare.

Grants Pass has never experienced CO concentrations in excess of the one-hour standard. Section 4.11.1.2 Ambient Monitoring Data, details the frequency that the eight-hour standard has been exceeded.

1 The eight-hour and one-hour standards for CO are 10 mg/m<sup>3</sup> and 40 mg/m<sup>3</sup>, respectively.

#### 4.11.0.4 Relationship Between State SIP and Local Planning

The local planning process has established specific goals and policies to guide local growth and development. Local governments utilize the planning program to help shape the future of their communities and ensure that adequate forethought is given to change. In urban areas there is exceedingly more reliance placed upon this program to ensure that all physical elements of community development are phased and coordinated. Sewer and water systems are planned in concert with development goals, streets and roads are designed to become a part of an integrated transportation system, and housing types (single family dwellings, mobile homes, and multiple family dwellings) are planned in accordance with the communities' needs and income levels.

The development of this Plan also drew upon the local planning process to establish the parameters for estimating future traffic flows. The two planning processes are, in a sense, one. This Plan is simply another element of a comprehensive planning document which will aid the community in efforts to mold the future and ensure that Grants Pass is a better and more livable place to live.

Specifically, the transportation system modeling utilized the estimates contained within the Grants Pass Community Development Plan to determine housing units and employment in the year 1990. The Community Development Plan is the City's controlling planning document. It is utilized, as it was in the development of this Plan, for water and sewer planning. The Community Development Plan contains projections for the year 2000. It is for this reason that some interpolation and judgement was necessary to estimate 1990 figures. Appendix 4.11-3 contains the existing and 1990 dwelling unit and employment estimates by transportation analysis zone.

#### 4.11.1 AMBIENT AIR QUALITY

##### 4.11.1.1 Geographic Description

The Grants Pass Carbon Monoxide Nonattainment Area is located within the City of Grants Pass in Josephine County, Oregon. The City of Grants Pass, at 948 feet elevation, lies in the Rogue River Valley and is surrounded by the Siskiyou Mountains and the Coast Range. The City of Grants Pass has an incorporated population of 15,350 (1985) and an urban area population estimated at 27,029 (1984). Figure 4.11-A is a map of the Grants Pass area.

A nationwide Environmental Protection Agency survey of air pollution potential identified Southwestern Oregon's interior valleys as having one of the highest potentials for pollutant buildup in the United States. This high potential for pollution is due to low wind speed, frequent temperature inversions, and the topography of the Rogue River Valley.



#### 4.11.1.2 Ambient Monitoring Data

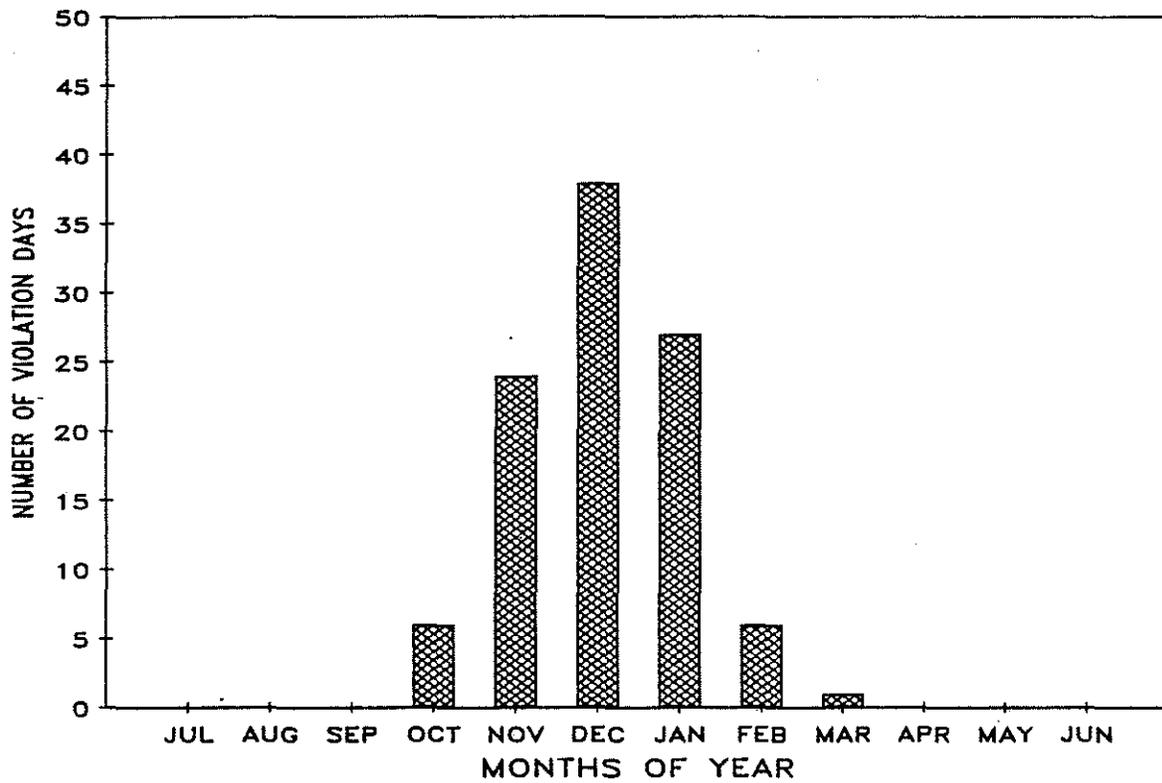
The Department of Environmental Quality began monitoring carbon monoxide (CO) in Grants Pass in 1979. The initial monitoring, done at a site near 6th and "L" Streets, indicated that maximum CO concentrations were close to but not above the ambient air quality standard of 10 milligrams per cubic meter (mg/m<sup>3</sup>), 8-hour average, at the monitoring site. Subsequent monitoring near 6th and "G" Streets indicated the maximum CO concentrations were above the standard as outlined below:

Table 4.11.1-1 Carbon Monoxide Monitoring Data

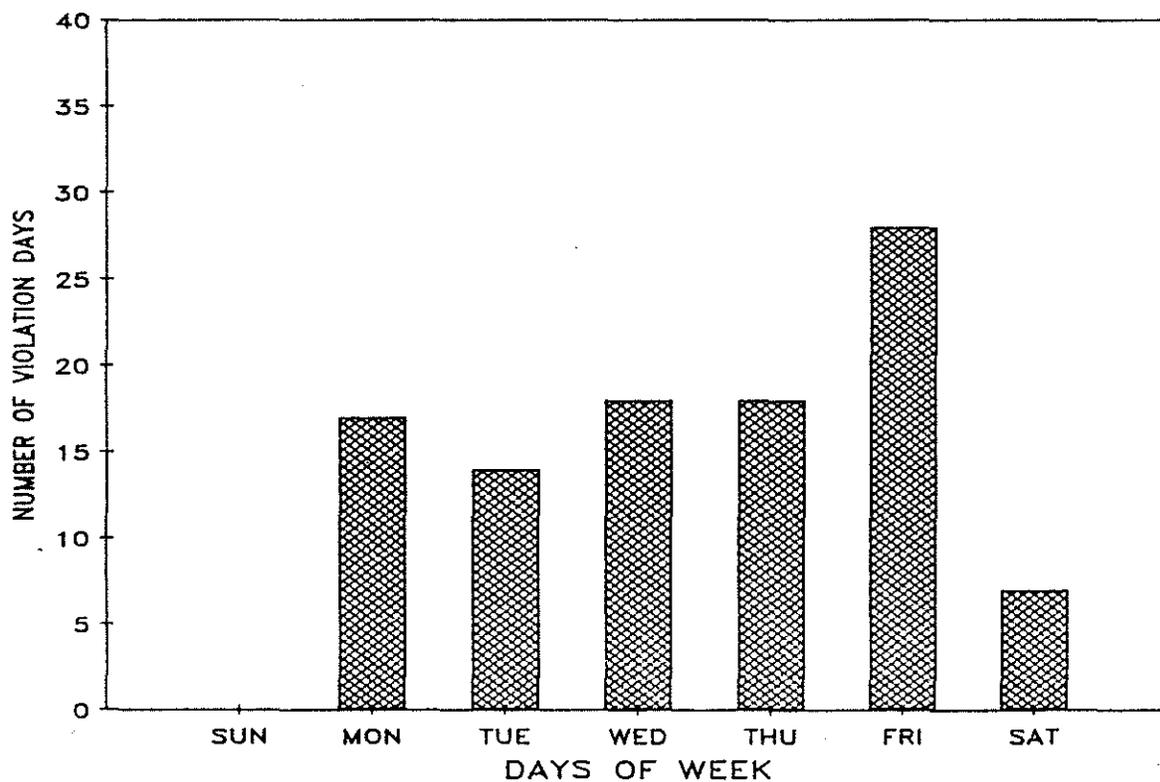
Year	Number of Days above Standard	Second Highest Day (MG/M <sup>3</sup> )
1981	25	13.2
1982	38	14.9
1983	13	12.9
1984	16	12.8
1985	13	13.0

Figures 4.11-B and 4.11-C more completely describe the violations. It should be noted that the majority of violations occur in the months of November, December and January primarily due to poorer ventilation during these months. The highest daily concentrations usually occur around 4:00 pm to 5:00 pm. Violations occurred most frequently on weekdays (especially Friday), occasionally on Saturday, but never on Sunday. The time-of-day and day-of-week violation patterns are closely related to traffic congestion patterns.

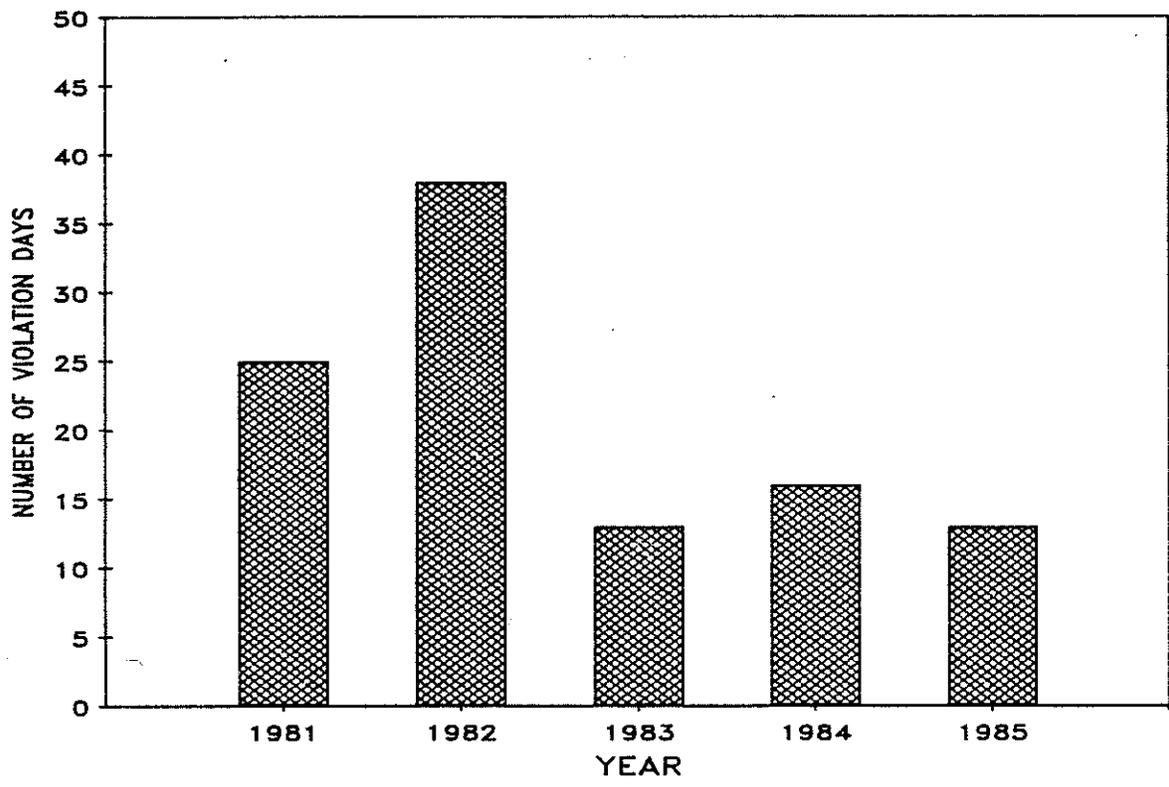
# GRANTS PASS CARBON MONOXIDE VIOLATIONS Over 5-Year Period: 1981-85



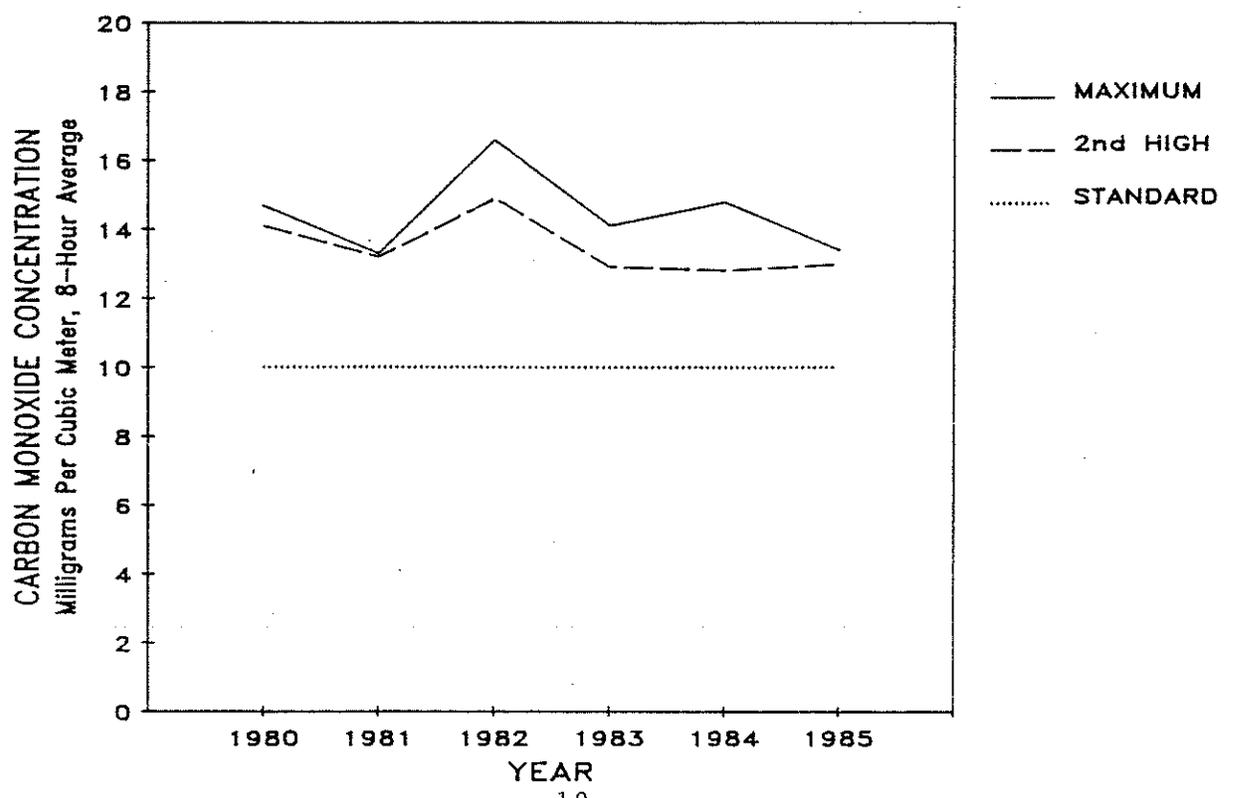
# GRANTS PASS CARBON MONOXIDE VIOLATIONS Over 5-Year Period: 1981-85



## GRANTS PASS CARBON MONOXIDE VIOLATIONS Over 5-Year Period: 1981-85



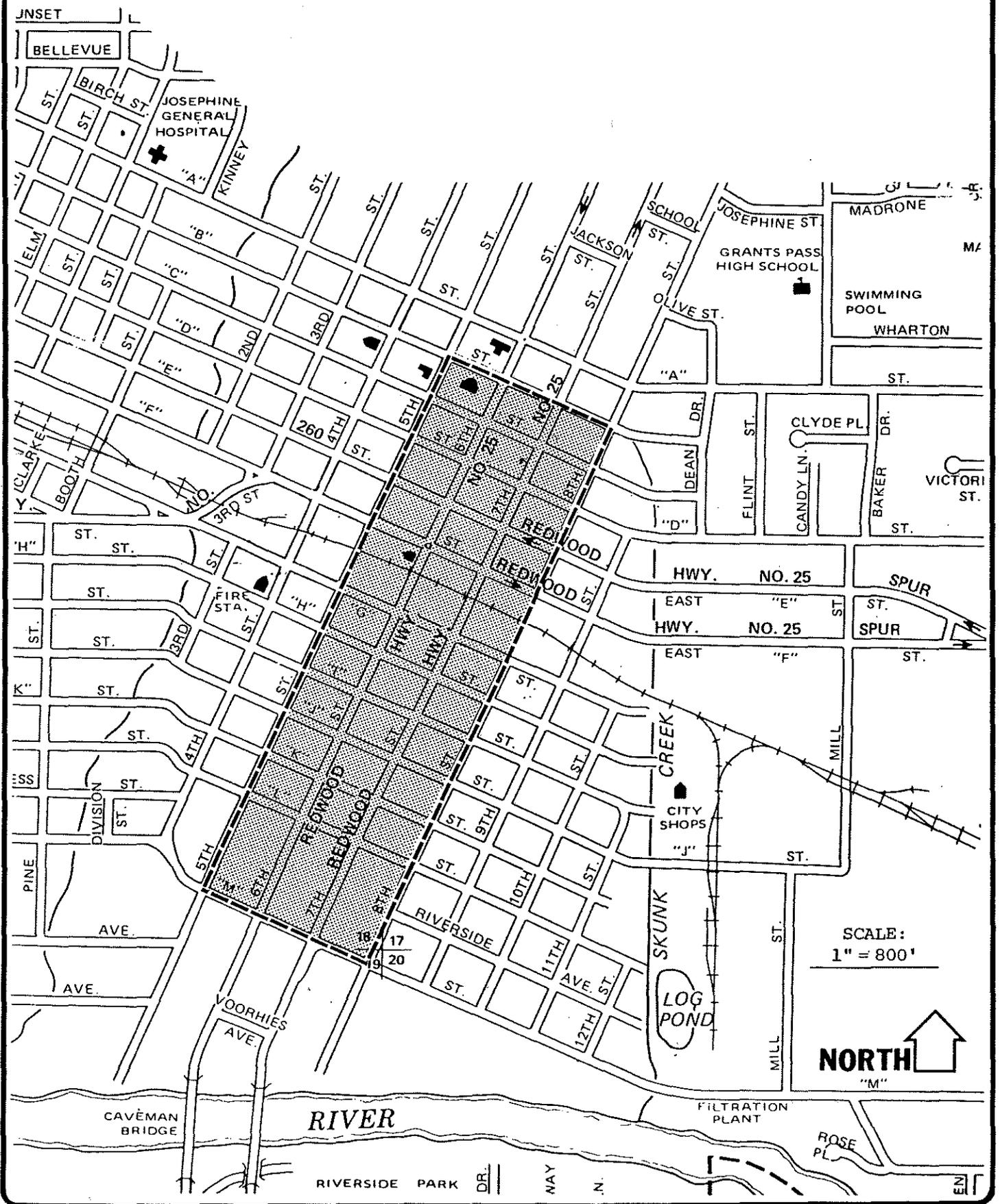
## GRANTS PASS CARBON MONOXIDE LEVELS November 1980 to December 1985



#### 4.11.1.3 Nonattainment Area Boundary

The Department of Environmental Quality (DEQ) conducted two special studies during 1982 - 1984 in order to locate the optimum monitoring site and define the problem area. A special study during the winter of 1982-83 determined that the 6th and "G" site reasonably characterized the maximum CO concentration area. A subsequent study during the 1983-84 winter identified the boundaries of the problem area. The problem area is enclosed by "B" Street (on the north), 8th Street (to the east), "M" Street (on the south), and 5th Street (to the west). Figure 4.11-D is a map of the nonattainment area.

# NONATTAINMENT AREA for Carbon Monoxide



## 4.11.2 EMISSION INVENTORY

### 4.11.2.1 Urban Area Emission Inventory

Carbon monoxide emission inventories for 1984 and 1990 are summarized in the following table. The detailed emission inventories are included in the Appendix 4.11-7. The base year is 1984 and the attainment year is 1990.

Table 4.11.2-1. Grants Pass Urban Area (Figure 4.11-A) CO Emission Inventories.

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Source Category	<u>Carbon Monoxide Emissions</u> (Tons per year)	
	1984	1990*
Transportation	11,830	9,370
Residential Heating	3,000	2,820
Industry	500	550
Other	50	60
Total	15,380	12,800

---

\*Projected

The areawide annual total CO emission trend, however, is not as important as the highway CO emission trend in the CO nonattainment area during the peak 8-hour period. The highway emission inventories (automobile and truck emissions) for the downtown Grants Pass nonattainment area are outlined in the following section.

4.11.2.2 Nonattainment Area Emissions Inventories

Highway CO emission inventories for the downtown Grants Pass CO nonattainment area are outlined in the following table. Projected 1990 inventories are shown with and without the 3rd bridge.

Table 4.11.2-2. Nonattainment Area Highway CO Emission Inventories

---

Source Category	<u>Carbon Monoxide Emissions (kg/8-hour)</u>		
	1984	1990 w/o Bridge	1990 w/Bridge
Highway Vehicles	1,790	1,570	920

---

The 1984 emission inventory from this table will be used for tracking reasonable further progress as discussed later.

#### 4.11.2.3 Design Concentration

Based on Environmental Protection Agency guidelines, the second highest 8-hour carbon monoxide concentrations observed during the last three years are to be used to calculate a base year design concentration upon which control strategies are to be developed. The annual second highest concentrations for 1982, 1983 and 1984 were used to derive a 1984 design 8-hour carbon monoxide concentration of 13.2 mg/m<sup>3</sup>. Appendix 4.11-5 describes the methodology used for this calculation.

#### 4.11.2.4 Growth Factors

Various growth factors are available which describe likely future growth trends in the Grants Pass area. The City's Comprehensive Plan includes a range of future population estimates. These estimates were developed in the late 1970's and reflect the City's development policies. These estimates were used to develop 1990 population and employment levels.

Average annual growth rates for the Grants Pass planning area are summarized below and outlined in more detail in Appendix 4.11-3.

Table 4.11.2-3 Population and Employment Growth Factors

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Indicator	Average Annual Rate of Growth (percent per year)	
	1980 - 1984	1984 - 1990
Population	4.6	10.0
Employment	1.6	1.3
Finance/service sector	1.7	2.6
Retail Trade	2.3	0.8
Industrial/Agriculture	1.0	0.6

---

The 1984 and 1990 population and employment estimates in each transportation zone were used to model traffic volumes on individual roadway links in the nonattainment area. Traffic volumes were projected to increase by an average 1.3 per cent per year in the nonattainment area between 1984 and 1990 without major transportation improvements.

### 4.11.3 CONTROL STRATEGY

#### 4.11.3.1 Emission Reduction Necessary

The carbon monoxide design concentration is  $13.2 \text{ mg/m}^3$  (Section 4.11.2.3). The required emission reduction of highway emissions to achieve the federal standard of 9 parts per million ( $10 \text{ mg/m}^3$ ) is approximately 29 percent. The calculation for the required emission reduction is shown in Appendix 4.11-6. The base year highway emission in the nonattainment area (1,790 kg/8-hour) must be reduced to 1,280 kg/8-hour by December, 1990.

In addition to the general emission target of 1,280 kg/8-hour, air quality modeling was used to determine the emission reductions needed to meet the CO standard on all of the individual roadway links and intersections in the nonattainment area. The results of this modeling are outlined in the following section. The most critical intersections identified in the air quality modeling were at 6th & "F" and 7th & "M" Streets.

#### 4.11.3.2 Evaluation of Alternative Transportation Improvements

The City's Policy and Technical Advisory Committee evaluated eight alternative 1990 transportation improvement scenarios. See section 4.11.7 for a listing of the Policy Advisory Committee members and the agencies participating on the Technical Advisory Group. The following alternatives were evaluated:

- Alternative 0: No Build (Federal New Car Program)
- Alternative 1: Committed Projects Only (J/Mill)
- Alternative 2: Committed & Agness Extension
- Alternative 3: Committed and 3rd (East) Bridge
- Alternative 4: Committed and 4th (West) Bridge
- Alternative 5: Committed and 4th/9th Improvements
- Alternative 6: Committed and Signal Rehabilitation
- Alternative 7: 3rd Bridge Only

The results of the traffic and air quality analyses are outlined in the following table. These alternatives when modeled for their air quality benefits were combined with the federal new car program. The detailed results by roadway link are included in the Appendix 4.11-8.

Table 4.11.3-1. Peak 8-Hour Traffic and Air Quality Results.

Alternative	Speed (mph)	Traffic (VMT)	Emissions (kg)	CO Level (mg/m <sup>3</sup> )	
				6th & F	7th & M
1984 Base	17.9	26,440	1,791	13.2*	12.0*
1990 Alt 0	16.6	28,486	1,557	11.3*	11.7*
1990 Alt 1	16.6	28,644	1,573	11.3*	11.0*
1990 Alt 2	17.5	26,768	1,399	10.1*	11.3*
1990 Alt 3	19.7	20,078	942	7.6	6.3
1990 Alt 4	17.6	27,103	1,407	10.6*	9.3
1990 Alt 5	17.9	24,813	1,296	8.1	13.5*
1990 Alt 6	17.1	28,644	1,525	10.5*	11.0*
1990 Alt 7	19.8	19,786	920	7.6	6.6

\*Violation of CO standard (10 milligrams per cubic meter).

The 3rd Bridge was the only identified transportation project that was adequate to meet the CO standard at all sites in the nonattainment area by 1990. The 3rd Bridge will also reduce traffic congestion and improve the average traffic speed in the downtown area.

The selected CO control strategy for the Grants Pass nonattainment area is the combination of the federal new car emission control program and the construction of the 3rd Bridge (Alternative 7).

#### 4.11.3.3 Transportation Measures Not Utilized

There are eighteen "reasonably available transportation measures" (RATM's) which must be considered during the development of a CO attainment plan. These measures, taken together, place primary emphasis upon reduction of CO from transportation sources. Listed below are those measures which were found, for a variety of reasons, to be unnecessary or undesirable.

- A) Programs designed to modify on-street parking in downtown and reduce motor vehicle emissions caused by extreme cold start conditions.

This measure is usually undertaken to reduce emissions resulting from the starting of an auto in the nonattainment area. Automobiles equipped with catalytic devices produce substantially more CO after being parked for more than one hour. The same is true for those without such devices when parked for more than four hours. Due to the relatively small contribution that these measures have, usually less than 0.1 of one percent of total, and their potential disruption of parking activities, this measure was not considered appropriate for implementation. Furthermore, it was believed that the existing method of controlling on street parking in the nonattainment area through metered spaces was fairly efficient in minimizing CO production from this source.

- B) Programs to establish public transit.

This measure would provide for the creation of a public transportation system within the City. A report entitled Transportation Service Extension Study; July, 1985 by the Rogue Valley Council of Governments concluded that such a system would be practical and fiscally possible given the passage of a tax base for operations.

Acknowledging the failure rate of past bond and levy measures, it is presumed that passage of a tax base and approval of a \$0.22 per \$1000.00 tax rate for public transit would be unlikely.

- C) Programs to create staggered work hours for employees.

Due to the incidence of peak concentrations around 5:00 P.M., it is presumed that allowing greater flexibility in work hours could result in lower peak CO levels in the City's downtown. Such a program would have the effect of smoothing the peak hour traffic, disperse the CO emissions over more hours and thus avoid exceeding the standard.

Most employers in the nonattainment area employ less than twenty people. With few major employers, implementing this

measure. It would be difficult and depend upon many employers volunteering to modify their existing work shifts. Changes of this type were found to be logistically difficult and practically impossible. Requiring participation of employers in the nonattainment area would be similarly difficult but also require a stringent enforcement mechanism which was also thought to be impractical.

- C) Provisions for employer participation in programs to encourage car pooling.

This measure is designed to increase the number of occupants per vehicle entering the downtown. While the measure has been successful in some communities, it usually requires that commuting distances be long and employers be large or concentrated in a few areas. Commuters to Grants Pass probably do not travel great distances nor is the City's land use consistent with either of the later requirements for effective car pooling programs.

- D) Motor vehicle emission inspection and maintenance program.

Inspection and maintenance programs (I&M) have proven to be very effective in reducing carbon monoxide levels where they include an anti-tampering and an emission inspection. Coupled with the political controversies which are often attendant with its implementation and availability of other methods to achieve the standard, this measure was not seriously considered. Typically a 10% to 30% reduction in emissions is attained. If implemented by the Environmental Quality Commission, the program would probably be patterned after the programs in Portland and Medford.

However, based upon projected 1995 and year 2000 traffic conditions, it is unlikely that an I & M program could reduce emissions sufficiently to meet the standard in these future years. Excessive traffic congestion and slow speeds in the nonattainment area would have a deleterious effect on CO emissions.

- E) Programs to establish exclusive bus and car pool lanes and area-wide car pool programs.

As noted earlier, it is unlikely that public transit could be established at this time. Car pool participation rates are probably low at present (see previous section re: employer car pooling participation) and establishing facilities for either car pooling or transit would be counter productive. Further, the absence of significant fees for parking and short commuting distances make the auto the preferred mode of travel almost to the exclusion of all others.

- F) Programs to limit portions of road surfaces or certain sections of the transportation system to the use of common carriers both as to time and place.

This measure would preclude private auto usage at specific locations. The absence of any alternative mode of travel make it impractical. Furthermore, implementation of the program would probably shift the area of violation to another part of the community.

- G) Programs to construct new parking facilities and operate existing parking facilities for the purpose of park and ride lots and fringe parking.

The lack of available mass transit facilities in Grants Pass precludes this alternative.

- H) Programs to limit portions of road surfaces or certain sections of the community to the use of non-motorized vehicles or pedestrian use, both as to time and place.

Implementation of this measure would probably simply result in moving the area of violation.

- I) Programs for secure bicycle storage facilities and other facilities, including bicycles lanes, for the convenience and protection of bicyclists, in both public and private areas.

The measure could reduce vehicle miles traveled by private automobiles; although the overall effect on air quality would be small.

- J) Programs to institute road user charges, tolls, differential rates to discourage single occupancy automobile trips.

This program would complement an effective car pooling or mass transportation system. These supporting systems are not likely to be available or effective. Furthermore, the toll booths would probably create hot spots of high CO concentrations in themselves. Such a program could also undermine efforts to direct growth within the City's urban growth boundary.

- K) Programs to control extended idling of vehicles.

This measure can prevent the creation of new hot spots and may also improve traffic safety. Unfortunately, the number of drive up windows in the violation area is not great and thereby would not have a significant impact upon the problem. Local businesses that utilize drive-up windows would be adversely effected.

- L) Programs for the conversion of fleet vehicles to cleaner engines or fuels, or to otherwise control fleet vehicle operations.

Measures of this type have met with hostility in most communities and are very costly. The technique phases-out larger and less efficient engines, and replaces them with smaller cleaner ones. The measure also includes conversion from gasoline to natural gas or propane.

- M) Programs for retrofit of emission devices or controls on vehicles and engines, other than light duty vehicles, not subject to regulations under section 202 of Title II of the Clean Air Act.

This measure would result in those vehicles which did not have emission control devices installed at the time that they were manufactured, heavy duty and pre-1968 vehicles, to be retrofitted to have such devices. The program is expensive, socially unacceptable, and not all vehicles can be controlled.

#### 4.11.3.4 Impacts of Control Strategy

This section of the Plan reviews the socio-economic and environmental impacts of those transportation measures expected to be utilized to achieve air quality goals in Grants Pass. As stated in Section 4.11.3.2, the attainment strategy includes only the federal new car program and a single local construction project, the 3rd Bridge. The analysis of the socio-economic and pertinent environmental issues associated with the construction of the 3rd Bridge follows and utilizes as much as possible the data generated by the Environmental Impact Statement (EIS) on the 3rd Bridge done by the Oregon Department of Transportation in 1978.

The major social impact involved in the construction of the third bridge is the direct effect on the people involved in the right-of-way acquisition, and the community re-orientation to a new circulation pattern for Grants Pass. An excerpt from the 1978 EIS states:

"In the short run, a new bridge in Grants Pass would contribute only minimally to population growth in the urban area.

"This highway project would increase regional and local accessibility. An increase in the number of linkages between the area north and south of the river would facilitate access between these areas.

"Of particular significance would be the beneficial change in access for emergency vehicles, which now must compete with traffic congestion on 6th and 7th Streets and on the bridges. A new bridge would provide an additional route for these services.

"The construction and operation of a new highway would create adverse impacts on some public facilities, institutions, parks, and residences not (currently) exposed to a busy highway. . . .

"This highway project would improve pedestrian safety in the downtown area. Reducing traffic would allow safer use of sidewalks and crosswalks, especially for the senior citizens and children."

The anticipated routing of the 3rd Bridge (fig. 4.11-E) would minimize right-of-way acquisition and displacements and provide the most logical through route from the Redwood Highway north and south. Even still, the effect on the local neighborhood can be traumatic. Extensive review of these impacts was done for the 1978 EIS for the 3rd Bridge. In summary an established neighborhood will be disrupted by this project. People and residences will be displaced. Land uses will change. Property owners in the affected neighborhood have expressed their concerns in the past.

The economic impacts involve the effect the construction and traffic shift will have on the local economy. While there may be some local financial contribution, the major source of the project cost of approximately \$16 million (1985 dollars) is expected to come from State monies.

Whenever traffic patterns change there are related economic effects. There will likely be additional development along the new 3rd Bridge route. The economic effects will be related to traffic increases, much of which will be through traffic avoiding downtown congestion.

The 1978 EIS emphasizes the relationship between the economic impacts and the anticipated change in traffic patterns. The EIS research indicates increased retail activity in the CBD due to improved access and lower traffic congestion. The EIS notes, however, that travel oriented businesses downtown (motels, etc.) may experience reductions as through traffic utilizes the 3rd Bridge route. Such businesses will likely develop along the new route.

Most of the project financing will come from monies outside the area. This will be a short term economic benefit to the area which will likely develop into long term benefit as development increases along the new route

The environmental impacts involved include the effects of the 3rd Bridge construction on geology, wildlife, air and water resources, aesthetics, noise, history, and archaeological resources. The relative magnitude of the beneficial and adverse impacts resulting from the 3rd Bridge construction are difficult to weigh. It is expected that the air quality benefits, for example, will be significant, whereas the effect on historical resources, in comparison, will be relatively small.

Each of the expected environmental impacts is covered in detail in the 1978 EIS. Most of the data remains valid today. The Oregon Department of Transportation is responsible for assuring that current environmental considerations are incorporated into the future project decision making process.

The major new information generated since 1978 is this air quality analysis which emphasizes the benefits of the 3rd Bridge on carbon monoxide levels in the downtown. Other impacts relating to water resources, wildlife, geology, aesthetics, noise and history should remain as described in the 1978 EIS, but may need to be updated.

Recent air quality analysis by the Oregon Department of Environmental Quality has shown that downtown Grants Pass exceeds the eight-hour Federal Clean Air Act standard for carbon monoxide. Figure 4.11-D shows the area designated as non-attainment. Carbon monoxide is directly related to burning of organic fuels. In the Grants Pass planning area motor vehicles account for 77 percent of all CO emissions. Downtown traffic congestion increases CO levels which cannot dissipate in the winter when atmospheric inversions prevent normal air circulation and trap pollutants.

The 3rd Bridge project is the only alternative among the several reviewed that will achieve air quality reductions to the extent that Grants Pass will achieve federal air quality standards. The reason is the shift in through traffic to the new route (along with substantial truck traffic) will reduce traffic congestion downtown. Fewer vehicles and increased traffic speeds combine to reduce emissions downtown significantly. The magnitude of the CO reductions is expected to allow for anticipated growth in the area as well.

The 3rd Bridge will also have the effect of reducing motor vehicle fuels consumed due to the combined result of increased speeds for that traffic passing through the downtown and the shorter distance traveled by users of the 3rd Bridge route.

Basic transportation needs will be met through construction of the Bridge. The resident population will realize improved mobility, regardless of mode, due to greater selection of routes to cross the Rogue River.

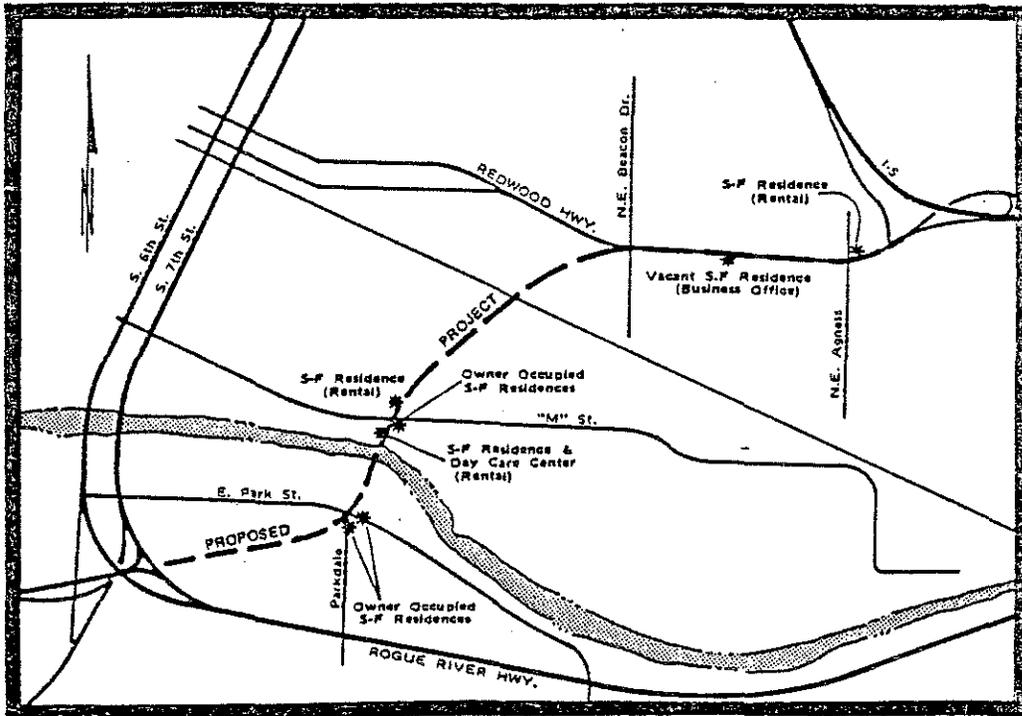


Figure 4.11-E. Proposed Third Bridge Location in Grants Pass, Oregon.

Source: Final Environmental Impact Statement for Foothill Boulevard  
(Third Bridge Grants Pass) by Oregon Department of Transportation.

#### 4.11.4 RULES AND REGULATIONS

The Oregon Revised Statutes (ORS) 468.275 through 468.620 authorize the Oregon Environmental Quality Commission to adopt programs necessary to meet and maintain state and federal standards. The mechanism for implementing these programs is the Oregon Administrative Rules (OAR). The rules that are pertinent to the carbon monoxide control strategy for Grants Pass are:

OAR 340-20-220 to 275, the new source review rules;

OAR 340-20-300 to 320, the plant site emission limit rules; and

OAR 340-31-025, the Oregon Standard for carbon monoxide (set equal to the primary and secondary federal standard).

##### 4.11.4.1 New Source Review Rules

The new source review rules require major new or modified stationary sources locating in a nonattainment area to:

1. Meet lowest achievable emission rates;
2. Demonstrate that the source will comply with the growth increment available or provide emission offsets;
3. Provide an analysis of alternative sites, sizes, production processes and control techniques.

The new source review rules require major new or modified stationary sources locating in an attainment area to:

1. Provide best available control technology;
2. Demonstrate that the source would not cause violations of any PSD air quality increments or any state or federal ambient air quality standards; and
3. Demonstrate that the source would not impact a designated nonattainment area greater than the significant air quality impact levels.

##### 4.11.4.2 Plant Site Emission Limit Rules

Plant site emission limit rules establish a baseline allowable emission rate for existing sources of carbon monoxide that are subject to regular permit requirements. These rules do not allow significant growth of stationary source emissions unless a growth margin is available or an offset can be obtained.

#### 4.11.5 REASONABLE FURTHER PROGRESS

The Clean Air Act requires a demonstration that Reasonable Further Progress (RFP) is being made each year towards the attainment of all air quality standards. RFP is defined as annual incremental reduction in emissions sufficient to achieve compliance with standards by the required date.

##### 4.11.5.1 Ambient Monitoring

Ambient carbon monoxide concentrations have been continuously monitored by the Oregon Department of Environmental Quality near the intersection of Sixth and G Streets since November 1980. The Department will continue to monitor CO concentrations at or near this site until attainment of the CO standard in Grants Pass.

##### 4.11.5.2 Conformity of Federal Actions

The Clean Air Act and U.S. Department of Transportation guidelines require conformance between state transportation improvement and air quality implementation plans. The Federal Highway Administration (FHWA) may only approve those highway projects which conform with the State Implementation Plan (SIP) and must give priority to highway projects which are in the SIP as transportation control measures. The FHWA has indicated that its conformity/priority determinations will be made based on its review of the Six Year Highway Improvement Program of the Oregon Department of Transportation.

##### 4.11.5.3 Annual Reporting

An evaluation of Grants Pass CO emission reductions will be included in the DEQ annual report to EPA on RFP. The annual CO emission inventory for highway vehicles will be compared to the RFP graph outline in Figure 4.11.5.-1. Highway CO emissions in the nonattainment area must be reduced from 1,790 kilograms per peak 8-hour period (kg/8-hr) in 1984 to 1,280 kg/8-hr by December 1990.

The City of Grants Pass will review the quarterly ODOT Project Scheduling Report and provide the DEQ by July 1 of each year with a written summary of the progress toward construction of the 3rd Bridge. A discussion of progress will be included in the DEQ annual report to EPA on reasonable further progress (RFP).

##### 4.11.5.4 Contingency Provision

Under the following circumstances a contingency planning process will be implemented.

- 1) The construction schedule outlined in 4.11.6 is not being realized, and
- 2) The DEQ in their annual review of RFP concludes that RFP is not being maintained.

This planning process will be initiated by DEQ's notification of the City of Grants Pass that RFP is not being met. The City will ask the agencies participating on the Technical Advisory Committee to meet to review the Grants Pass Carbon Monoxide Study. The Technical Committee shall also review the 3rd Bridge construction schedule to ascertain the cause for the delay and potential remedies.

#### 4.11.6 RESOURCE COMMITMENT

The Oregon Transportation Commission determined that the 3rd Bridge construction should be included in the 1987 - 1992 Six Year Highway Improvement Program. This plan will not be officially adopted until July, 1986. Only upon its official adoption, will there exist a verifiable committment to construction of the 3rd Bridge.

Based upon the information that is available in advance of official action by the Transportation Commission, the following construction schedule is anticipated:

<u>Task</u>	<u>Tentative Schedule</u>
Project Design	April 1986 - July 1988
Right of Way Description	June 1986 - January 1987
Final Plans	January 1987 - December 1987
Right of Way Acquisition	February 1987 - September 1988
Preparation of Specifications	September 1988
Bid Opening (construction)	October 1988

There is always the possibility of delay affecting the above schedule. The annual reporting described in 4.11.5.3 will notify all parties of any changes in the scheduling; and, if necessary, the contingency planning process described in 4.11.5.4 will go into effect.

#### 4.11.7 PUBLIC INVOLVEMENT

The City of Grants Pass was designated the lead agency by the Governor of Oregon to address the Carbon Monoxide issue in the City. Grants Pass contracted with the Rogue Valley Council of Governments (RVCOG) in 1985 to conduct an investigation into the carbon monoxide problem and possible solutions. Included in that study was a public information program which had the following goals;

1. Inform the citizens of Grants Pass and Josephine County of the nature and extent of the carbon monoxide problem,
2. Inform the citizens of the carbon monoxide study process, and
3. To encourage the citizens to participate in the study by providing input to the process.

The city of Grants Pass selected a Technical Advisory Committee and appointed a Policy Advisory Committee to facilitate review of the plan. The former was made up of staff professionals from Josephine County Planning and Public Works Departments, Grants Pass Community Development Department, Oregon Departments of Environmental Quality and Transportation and the RVCOG; the latter was made up of citizens representing the community. The Policy Advisory Committee members are: Robert W. Lee, Barbara McCaw, Richard Riker, R. Daniel Simcoe, and Lee Webb. These committee members helped organize the public awareness program and, in fact, participated in many of the presentations.

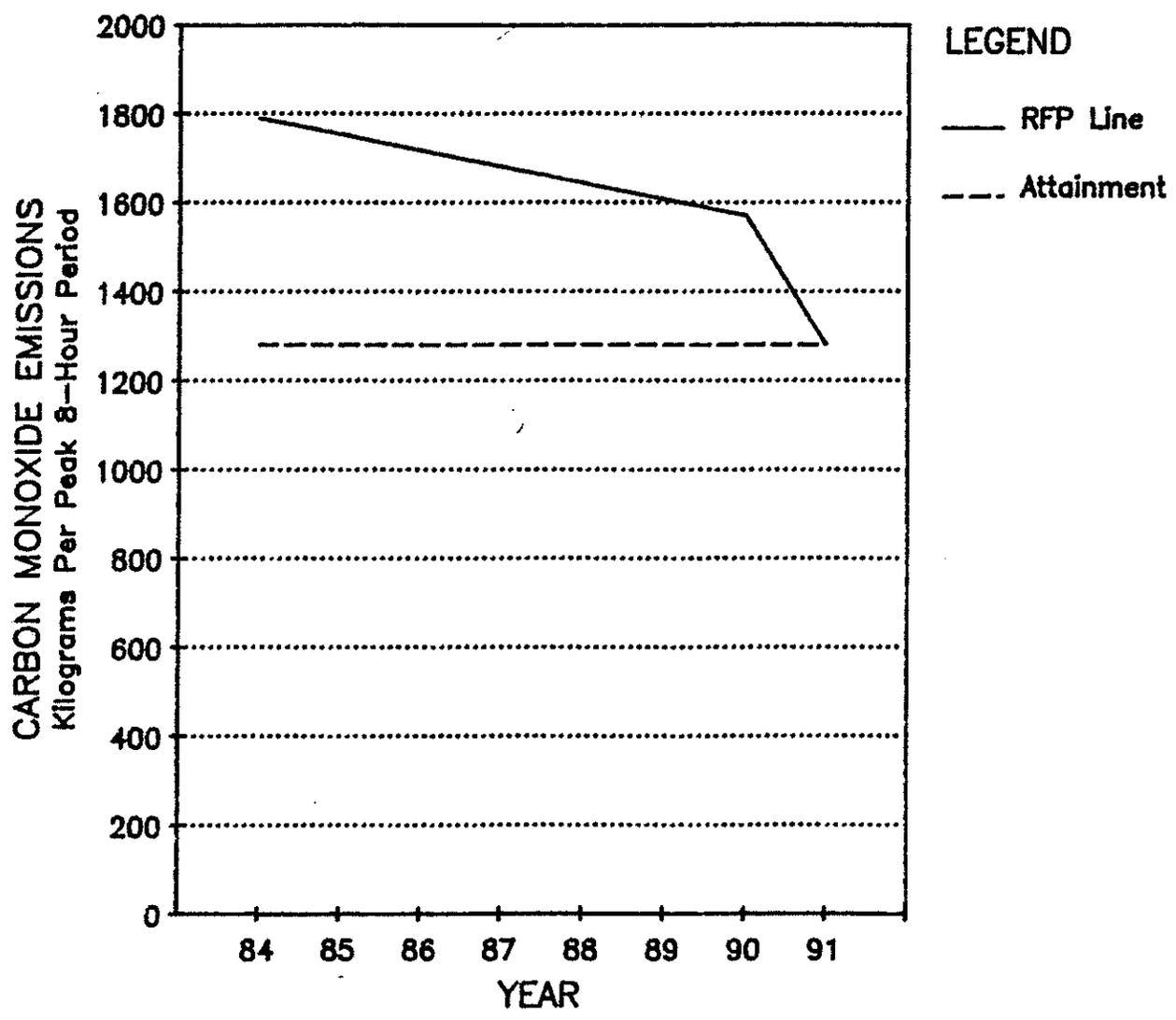
The Rogue Valley Council of Governments had a comprehensive slide/tape show prepared to describe the CO problem, the source, the health implications and the nature of the investigation into alternative solutions. That slide show and/or air quality planning summaries were presented to a variety of affected agencies and citizen groups including:

1. Grants Pass City Council (10/14/85)
2. Grants Pass Citizens Policy Advisory Committee (10/29/85)
3. Rotary Club (11/13/85)
4. Josephine County Commissioners (12/4/85)
5. KAGI Radio/TV (12/4/85)
6. KAJO Radio (12/4/85)
7. Grants Pass Audubon (12/12/85)
8. KTVL TV (aired 12/26/85)
9. Josephine County Health Department (1/21/86)
10. Grants Pass Chamber of Commerce (1/23/86)
11. Oregon Highway Commission (2/24/86)
12. Grants Pass Policy Advisory Committee (4/11/86)
13. Grants Pass Policy Advisory Committee (5/5/86)

In addition to the above meetings each of the public agency sessions was covered by the local radio which publicized the proceedings in detail.

The final Plan draft was then presented to and reviewed by the Grants Pass Technical Advisory Committee (5/2/86), and Grants Pass Policy Advisory Committee (5/5/86). On June 4, 1986 the Grants Pass City Council adopted the document.

Figure 4.11.5-1  
REASONABLE FURTHER PROGRESS  
Highway Carbon Monoxide Emissions



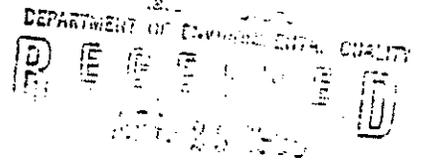
## LEAD AGENCY DESIGNATION

- Acceptance of Responsibility by City of Grants Pass
- Designation as Lead Agency by Governor Victor Atiyeh

City of  
Grants Pass

100 years  
of change

101 N.W. "A" Street  
Grants Pass, Oregon 97526



OFFICE OF THE DIRECTOR

April 23, 1985

Fred Hansen, Director  
Department of Environmental Quality  
522 S.W. Fifth Avenue, Box 1760  
Portland, Oregon 97207

Re: Lead Agency for Carbon Monoxide Plan

Dear Mr. Hanson:

At its regular meeting of April 17, the Grants Pass Council adopted the enclosed resolution agreeing to be the lead agency for the carbon monoxide plan. We have an agreement with the Josephine County Board of Commissioners that they will make some of their staff available to provide "in-kind" services during the preparation of the plan.

Enclosed please also find a tentative schedule for the completion of the plan. Note that this schedule is tentative, and will be firmed up once we have selected a consultant and have had further discussions with your staff.

Note that the resolution makes the City's acceptance of the lead agency role contingent upon the award of a grant from the Environmental Protection Agency for two-thirds of the cost of the project, up to a maximum of \$20,000. Please let me know the details on this grant as soon as possible.

If you have any questions or comments, please don't hesitate to call.

Sincerely yours,

A handwritten signature in cursive script that reads "Ed Murphy".

Ed Murphy  
Director of Community Services

EM/jc

cc: Loren McPhillips, Environmental Protection Agency  
Dennis Lewis, Rogue Valley Council of Governments  
Board of County Commissioners  
Bob Weber, County Engineer

Encl.

RESOLUTION NO. 1800

A RESOLUTION ACCEPTING THE DESIGNATION OF THE CITY OF GRANTS PASS AS THE LEAD AGENCY FOR THE PREPARATION AND IMPLEMENTATION OF A CARBON MONOXIDE ATTAINMENT PLAN.

WHEREAS, the U. S. Environmental Protection Agency has set standards for air quality under the Clean Air Act of 1977, and has required the state government to develop plans and strategies to meet those standards; and

WHEREAS, the carbon monoxide non-attainment area has been designated within the Downtown area of the City of Grants Pass; and

WHEREAS, consistent with federal and state policy, a local jurisdiction has been requested to prepare the attainment plan; and

WHEREAS, the Department of Environmental Quality has received a tentative commitment from the U. S. Environmental Protection Agency for up to \$20,000 to assist in the development of this attainment plan; and

WHEREAS, the City appears to be the most appropriate agency for the preparation and implementation of the Carbon Monoxide Attainment Plan;

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Grants Pass that the City agrees to be the lead agency for the preparation and implementation of the Grants Pass Carbon Monoxide Attainment Plan; and

BE IT FURTHER RESOLVED that this acceptance is contingent upon the grant from the U. S. Environmental Protection Agency for 2/3 of the cost of preparing the plan, up to a maximum of \$20,000; and

BE IT FURTHER RESOLVED that the City Manager is hereby authorized to submit a detailed work program with a budget and schedule leading to the submittal of a satisfactory attainment plan by December of 1985.

PASSED by the Council of the City of Grants Pass, Oregon, this 17th day of April, 1985.

SUBMITTED to and approved by the Mayor of the City of Grants Pass, Oregon this 22nd day of April, 1985.

Lawrence Reynolds  
Mayor

ATTEST:

Annalyne Smith  
Finance Director

VICTOR ATIYEH  
GOVERNOR



OFFICE OF THE GOVERNOR  
STATE CAPITOL  
SALEM, OREGON 97310

MAY 13 1985

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
**RECEIVED**  
MAY 23 1985

Ernesta Barnes  
Region X Administrator  
Environmental Protection Agency  
1200 Sixth Avenue  
Seattle, WA 98101

AIR QUALITY CONTROL

The purpose of this letter is to notify you that the City of Grants Pass will be the lead agency for the preparation and implementation of the Grants Pass carbon monoxide attainment plan. This designation is provided pursuant to Section 174 of the Clean Air Act.

Enclosed is a resolution by the City of Grants Pass dated April 22, 1985 accepting the designation as lead agency. Josephine County, the Rogue Valley Council of Governments, and the Oregon Department of Environmental Quality concur that the City of Grants Pass is the most appropriate lead agency.

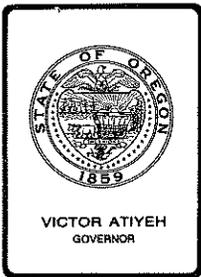
Sincerely,

Victor Atiyeh  
Governor

VA:n  
AN155

Enclosure: City of Grants Pass Resolution No. 1800

cc: Mayor Jane Reyneke, City of Grants Pass  
Dennis Lewis, Rogue Valley Council of Governments  
Board of Josephine County Commissioners  
bcc: Fred Hansen, DEQ Director  
Air Quality Division, DEQ



## Environmental Quality Commission

Mailing Address: BOX 1760, PORTLAND, OR 97207  
522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

TO: Environmental Quality Commission      DATE: September 29, 1986

FROM: Linda K. Zucker, Hearings Officer

SUBJECT: Revision of the State Implementation Plan to Include the Grants  
Pass Carbon Monoxide Control Strategy

On September 15, 1986, a hearing was conducted in the Council Chambers of Grants Pass City Hall on DEQ's proposal to amend the State Implementation Plan to include a strategy for attainment of federal and state standards for carbon monoxide. The recommended strategy was construction of a third bridge over the Rogue River to reduce traffic congestion and carbon monoxide concentrations in the downtown area of Grants Pass. The following testimony was provided:

WILLIAM YOUNG, a Grants Pass resident since 1909, believed that carbon monoxide exceedances had been identified through a faulty survey which included too few residences. In his view, 13 days annually of air quality standard violation is acceptable. Young thought some of the problem might be remedied without intervention if economic improvements lead to a switch to oil and gas from cheaper wood heat. Young opposed mandatory inspection and maintenance as a solution to the Grants Pass carbon monoxide problem, and was assured that such a program was not part of the current proposal.

RAY COLSON served as Safety Council President about 20 years ago. Even then a third bridge was identified as a solution to Josephine County's traffic problems. Today the basic problems and facts are the same but the air has changed. With the end of wigwam burners there is less particulate but there is more carbon monoxide due to increased auto traffic. Colson believes the third bridge will alleviate air quality problems.

GARY SHAFF spoke as staff to the Rogue Valley Council of Governments, the contracting agency with the City of Grants Pass in formulating the proposed amendment to the State Implementation Plan. Shaff cited the great cooperation and general fine quality of effort the participating agencies invested in the planning product. The project has broad community support as shown by its inclusion in the Oregon Transportation Commission's Six-Year Plan. Shaff encouraged the Environmental Quality Commission to adopt the proposed amendment including the third bridge.

Environmental Quality Commission

September 29, 1986

Page 2

BRUCE MCGREGOR, former Mayor of Grants Pass, is a local property owner and businessman. He supports the proposed bridge, expecting business benefit for himself individually and benefit to the economic growth of the community.

HAROLD GEORGE lives east of the proposed bridge. He suggests access be made available from M and Park Streets. This will allow East Grants Pass residents to bypass the affected area en route to Medford, alleviating carbon monoxide intensity.

BONNIE LEE KENNEDY, moved to Grants Pass from the East two years ago. She believes Oregon totally disregards air quality control and she finds the air here disgusting. To remedy this she would limit the number of wood mills and ban all Bureau of Land Management slash burning. She would use wood chippers to dispose of slash. Job loss from the closed mills could be addressed by increased tourism. Written testimony provided.

DENNIS G. LEWIS, Executive Director of the Rogue Valley Council of Governments, wrote to encourage the Environmental Quality Commission's adoption of the Grants Pass carbon monoxide strategy as an element of the State Implementation Plan. The project was identified early as a key element in reducing carbon monoxide levels. It has broad community support. An active Air Quality Citizen Advisory Committee coupled with a joint technical planning process (including representatives from Grants Pass, Josephine County, Oregon Departments of Transportation and Environmental Quality together with Rogue Valley COG) solidified the ideas, technical analyses, land use policies, and alternatives into an understandable document for the city council's consideration. The council responded by voting unanimously to adopt the plan. Written testimony provided.

LKZ:r  
HR1596

Sept. 14, 1986

To THE D.E.Q.

SEP 17 1986

PLEASE EXCUSE THE WRITING FORMAT SINCE I'VE JUST MOVED AND CAN'T FIND MY TYPEWRITER LET ALONE A WRITING PAD, THE MESSAGE IS STILL THE SAME, HOWEVER.

I COULDN'T RESIST WRITING A COMMENT ON REGARD TO YOUR PLANNED PUBLIC HEARING ON AIR POLLUTION, SCHEDULED FOR SEPTEMBER 15<sup>TH</sup> IN GRANTS PASS. THERE ARE NO OTHER ISSUES I FEEL SO STRONGLY ABOUT THAT I CARE TO MAKE A STATEMENT ON EXCEPT THIS.

MY HUSBAND AND I HAIL FROM THE EAST COAST AND MOVED HERE APPROXIMATELY 2 YRS. AGO. WE WERE ABSOLUTELY AWED WITH THE BEAUTY OF SOUTHERN OREGON AND KNEW THIS WAS TO BE OUR HOME. WE COULD NOT HOWEVER, UNDERSTAND THE TOTAL DISREGARD TO THE AIR QUALITY CONTROL IN THIS STATE. THE AIR IS SO DISGUSTING AT TIMES THAT I DO NOT CARE TO LET MY CHILD GO OUTSIDE. I HAVE SPOKEN TO YOUR OFFICE ON SEVERAL OCCASIONS ABOUT ONE OF THE MAJOR CONTRIBUTING FACTORS TO THIS PROBLEM AND AS WITH POLITIES ELSEWHERE GOT NOWHERE.

I'M SURE MY WRITING THIS COMMENT IS IN VAIN BUT ONCE AGAIN, IF YOU'D OPEN YOUR EYES AND TAKE A LOOK AROUND YOU MIGHT FIND YOUR BIGGEST SOURCE OF POLLUTION IE. THE WOOD MILLS AND THE INDISCRIMINATE BLASH PILE BURNING BY THE BLM. I REALIZE THE MILLS ARE THE BREAD & BUTTER OF THE STATE OF OREGON, BUT AND I EMPHASIZE BUT, IT DOESN'T HAVE TO BE.

IF THE STATE WOULD LIMIT (NOTE I DID NOT SAY ERADICATE)  
THE NUMBER OF WOOD MILLS AND PUT A TOTAL BAN ON ALL  
BLM SLASH PILE BURNING (USE WOOD CHIPPERS), I SERIOUSLY  
BELIEVE THE RESULTS WOULD PROVE A GREATLY IMPROVED AIR QUALITY.

WHAT ABOUT THE JOBLESS FEW FROM THE CLOSED MILLS? EASY!  
CONCENTRATE ON IMPROVED TOURISM. WE HAVE A MAGNIFICENT  
STATE HERE AND FEW CAN COMPARE. PUSH, PUSH, PUSH, TOURISM.

THE STATES OF NEW HAMPSHIRE, VERMONT AND MAINE ARE  
BEAUTIFUL, BUT NOT IN MY OPINION AS BEAUTIFUL AS OREGON.  
THEY DO HAVE SOME LOGGING AND SOME MILLS, BUT NEVER  
DO YOU SEE POOR AIR QUALITY THERE LIKE YOU DO HERE. THE  
PEOPLE SIMPLY WOULD NOT STAND FOR IT. THE AIR QUALITY  
CODES AND STANDARDS FOR BURNING ARE MUCH STRICTER AND  
EVERYBODY COMPLIES OR PAYS HEAVY FINES. THESE STATES ALL  
MANAGE TO SURVIVE ON TOURISM. THIS STATE COULD TOO AND  
HAVE CLEANER AIR AT THE SAME TIME.

I WISH AT LEAST ONE OF YOU WOULD REALLY FACE PART  
OF THE REAL PROBLEM. A THIRD BRIDGE IN GRANTS PASS  
IS NOT THE SOLUTION AND MAY ACTUALLY RESULT IN  
INCREASED TRAFFIC BECAUSE OF LESS CONGESTION.

FOR WHAT IT'S WORTH IT WILL BE INTERESTING TO SEE  
THE OUTCOME OF THIS HEARING.

SINCERELY,  
Mrs. BONNIE LEE KENNEDY  
4506 JUMP-OFF JOE CR. RD.  
GRANTS PASS, OR.  
97526

# DEQ agrees bridge is pollution solution

*Grants Pass 9/16/86*

By Wes Nelson  
of the Daily Courier

If the state Department of Environmental Quality was looking for a fight over a plan to reduce air pollution in Grants Pass, it didn't get one Monday night.

A mere handful of people attended a public hearing at the City Council chambers to offer testimony to DEQ's Howard Harris and Linda Zucker.

Harris coordinates DEQ's transportation and control program and Zucker is a hearings officer. DEQ staff will evaluate testimony taken Monday and submit it to the state Environmental Quality Commission.

The pair said it appears the third bridge is a viable solution to air pollution problems in Grants Pass. No one attending the hearing argued that point.

"The third bridge is expected to solve the problem in Grants Pass," Zucker said.

Ray Colson asked if DEQ could expedite construction of the bridge.

"Any way you can speed up the construction of the third bridge — and I realize it's not going to solve

all the problems — would really help," he said.

Bruce McGregor, former Grants Pass mayor, said the third bridge will be good for the community economically and environmentally.

Zucker assured residents that mandatory inspection and maintenance is not part of Grants Pass' plan. She said inspection and maintenance is mandatory in Medford because DEQ saw that as the only way to control air pollution there.

Grants Pass proposes that the construction of a third bridge over the Rogue River will reduce air pollution in the city. Downtown Grants Pass's pollution levels exceeded air quality standards for carbon monoxide 13 days last year. Only Medford, which exceeded standards 33 days, was worse.

The commission will consider the plan Oct. 24 in Portland.

The bridge already is part of the state Department of Transportation's Six-year Highway Improvement Plan, which will pay for the bridge, expected to cost \$15 million.

# Bridge endorsed as best solution for GP pollution

By MARY BETH ALLEN

for the Mail Tribune *Medford 9/16/86*

GRANTS PASS — State officials say construction of a third bridge across the Rogue River, rather than a vehicle inspection program, is the key to improving the city's air quality.

The plan was discussed Monday at a sparsely attended hearing sponsored by the state Department of Environmental Quality.

The third bridge is the key element in a plan to reduce air pollution developed by the Rogue Valley Council of Governments for the city of Grants Pass. The plan was endorsed by the City Council this spring.

The community has sought a third bridge for 20 years, said Ray Colson, a longtime bridge advocate.

Congestion on the Sixth and Seventh Street bridges makes it difficult for emergency vehicles to cross the river, creating a safety hazard, Colson said.

Safety considerations and air pollution prevention combine to make a strong argument for construction of the bridge, he said.

Last year, carbon monoxide levels in downtown Grants Pass exceeded state and federal air quality standards on 13 days, the second-highest number of violations in the state. Medford was first, with 33 days above the standard.

In third place was Salem, with four days, followed by Portland, with two days, and Eugene, with one.

The DEQ maintains that a third bridge would relieve traffic congestion, the major culprit in carbon monoxide buildup downtown. The bridge is

---

‘A lot of people can't afford to have their cars overhauled for 13 days of DEQ violations. I don't think 13 days out 365 is very bad.’

—William Young

---

included in the Oregon Department of Transportation's highway improvement plan for 1987-1992.

The \$15 million structure would be financed by the State Highway Modernization Fund.

In addition to cleaning the air, “the third bridge will help the economic growth of our area,” said Bruce McGregor, a downtown property owner.

At least one audience member said he opposed any attempt to impose a vehicle inspection and maintenance program like that now in use in Medford.

“A lot of people can't afford to have their cars overhauled for 13 days of DEQ violations,” said William Young. “I don't think 13 days out 365 is very bad.”

Linda Zucker, hearings officer for the state Environmental Quality Commission, emphasized that mandatory vehicle inspection and maintenance is not part of the proposed plan for Grants Pass.

The commission is expected to approve the bridge plan Oct. 24, Zucker said.

Construction of the bridge, which will link Interstate 5 with the Redwood Highway, could begin as early as 1989, according to the state Highway Division.

OREGON PROJECT REVIEW ACKNOWLEDGMENT

State Clearinghouse  
Intergovernmental Relations Division  
155 Cottage Street N. E.  
Salem, Oregon 97310

**OR 860819-040-6**

-----  
Phone (503)378-3732 or Toll Free in Oregon 1-800-422-3600  
-----

Applicant: ENVIRONMENTAL QUALITY, DEPT OF  
Project Title: Grants Pass Carbon Monoxide Control  
Date Received: 8/19/86 (start of 45-day review period)  
PNRS#: OR860819-040-6 BE SURE TO PLACE THIS NUMBER ON YOUR  
APPLICATION BEFORE SUBMITTING TO FEDERAL AGENCY.

Your project notice has been assigned the file title and number that appear above. Please use it in correspondence and, if applicable, enter it in Block 3A on the 424 form for the project. IN ADDITION, YOUR PROJECT NOTICE MUST BE SUBMITTED FOR REVIEW TO YOUR LOCAL CLEARINGHOUSE.

-----  
Grant Type: STATE PLAN/AMENDMEMT  
-----

NOTE: Your project was circulated to the following state agencies:

Agriculture	Highway Division
DEQ	Fish & Wildlife
Lands	LCDC
Water Resources	

*[Faint, illegible text or stamp]*

# ROGUE VALLEY Council of Governments

---

155 S. Second St. / P.O. Box #3275 Central Point, OR 97502

(503) 664-6674 / 779-6785

September 15, 1986

Environmental Quality Commission  
522 S.W. Fifth Avenue  
P.O. Box 1760  
Portland, OR. 97207

Dear Commission:

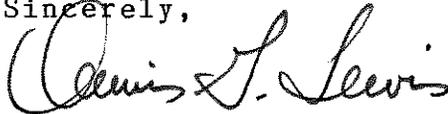
I encourage your adoption of the Grants Pass carbon monoxide strategy as an element of the State Implementation Plan (SIP). The Grants Pass Carbon Monoxide Plan reflects a concerted and coordinated effort by many agencies and individuals to solve the carbon monoxide problem in the City's downtown.

Probably the action that is most reflective of this concerted local effort is the inclusion of funding for the Third Bridge within Oregon Transportation Commission's Six Year Plan. This project was identified early in the air quality planning process as a key element in reducing CO levels. Representatives of several Southern Oregon communities and numerous organizations voiced their support for the project. Some used traffic congestion others alluded to the economic benefits of the project. But probably the motivating reason behind the Transportation Commission's inclusion of the project in their Plan was the air quality impact and the broad community support for the its construction.

While the same outpouring of support for the adoption of the SIP amendment is unlikely, it too has broad community support. The development of a strong citizen involvement component within the planning process ensured that citizens concerns and ideas were integrated into the process. An active Air Quality Citizen Advisory Committee further heightened the involvement of lay citizens in reaching the final recommendations contained within the Plan. The citizen involvement effort coupled with a joint technical planning process (including representatives from Grants Pass, Josephine County, Oregon Departments of Transportation and Environmental Quality together with my own staff) solidified the ideas, technical analyses, land use policies, and alternatives into an understandable document for the City Council's consideration.

The Council's unanimous vote for adoption of the Plan on June 4th, 1986 reflects their commitment to implement the strategies included within the Plan and thereby reduce the CO levels in the downtown core. Your favorable consideration of the proposed amendment will affirm those decisions that have preceded yours at the local level and provide further evidence of the extraordinary community that makes Grants Pass an "All-American City."

Sincerely,

A handwritten signature in cursive script that reads "Dennis G. Lewis". The signature is written in dark ink and is positioned below the word "Sincerely,".

Dennis G. Lewis,  
Executive Director



OREGON INTERGOVERNMENTAL PROJECT REVIEW

**RECEIVED**  
OCT 2 1986

State Clearinghouse  
Intergovernmental Relations Division  
155 Cottage Street N. E.  
Salem, Oregon 97310

**AIR QUALITY CONTROL**

Phone (503)378-3732 or Toll Free in Oregon 1-800-422-3600

C O N C L U S I O N S

APPLICANT: DEPARTMENT OF ENVIRONMENTAL QUALITY

PROJECT TITLE: GRANTS PASS CARBON MONOXIDE CONTROL

DATE: September 30, 1986

The State of Oregon (and local clearinghouses if listed) has reviewed your project and reached the following conclusions:

- No significant conflict with the plans, policies or programs of state or local government have been identified.
- Relevant comments of state agencies and/or local governments are attached and should be considered in the final design of your proposal.
- Potential conflicts with the plans and programs of state and/or local government:
  - may exist.
  - have been identified and remain unresolved. The final proposal has been reviewed and the final comments and recommendations are attached.
  - have been satisfactorily resolved. No significant issues remain.

A copy of this notification and attachments, if any, must accompany your application to the federal agency.

FEDERAL CATALOG # 66.001

NOTICE TO FEDERAL AGENCY

THE FOLLOWING IS THE OFFICIALLY ASSIGNED STATE IDENTIFIER NUMBER:

**OR 860819-040-6**

IPR #3  
cc:EPA

*Solene Steeter*  
Clearinghouse Coordinator



OREGON INTERGOVERNMENTAL PROJECT REVIEW

State Clearinghouse  
Intergovernmental Relations Division  
155 Cottage Street N. E.  
Salem, Oregon 97310

I. R. D.

AUG 28 1986

*Josephine County*

Phone (503)378-3732 or Toll Free in Oregon 1-800-422-3600

STATE AGENCY REVIEW

Project Number: OR 860819-040-6 Return Date: SEP 26 1986

STATE PLAN/AMENDMENT

TO AGENCY ADDRESSED: The attached State Plan/Amendment has been submitted for review. It is provided for your information and to solicit comments. Your comments, if any, must be received by the above date in order to receive consideration.

COMMENTS

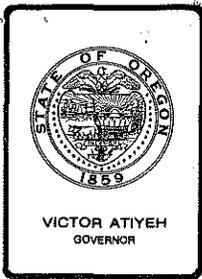
If the project would require the removal, fill, or alteration of 50 cubic yards or more of material within the banks of the waterway(s) or wetland area(s), we urge the applicant to apply for state removal or fill permits well in advance of construction deadlines to prevent unnecessary project delays. Specific information of the need for permits may be obtained from the Division of State Lands' office at 1600 State Street, Salem, OR 97310. Phone: 378-3059.

Thank you for the opportunity to comment on this project.

DIVISION OF STATE LANDS

Agency Lands  
IPR #7

By Susan Payne



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

TO: Environmental Quality Commission

FROM: Director

SUBJECT: Agenda Item No. G, October 24, 1986, EQC Meeting

Proposed Adoption of Rules Amending National Standards of Performance for New Stationary Sources OAR 340-25-505 to -710 and Amending National Emission Standards and Procedural Requirements for Hazardous Air Contaminants, Oregon Administrative Rules (OAR) 340-25-460 to -485

### Background

The U.S. Environmental Protection Agency (EPA) has been adopting New Source Performance Standards (NSPS) for major sources of air pollution since 1971. To acquire delegation to administer these standards, the Commission adopted Oregon Administrative Rules (OAR) 340-25-505 to -705 in September 1975, and amended them in 1981, 1982, 1983, 1984, and 1985. EPA delegated NSPS to the Department in 1976, 1981, 1983, 1984, and 1985.

EPA has been adopting National Emission Standards for Hazardous Air Pollutants (NESHAPS) since 1973. To acquire delegation to administer these standards, the Commission adopted Oregon Administrative Rules 340-25-450 to -480 in 1975 and amended them in 1982. EPA delegated these Hazardous Emission Standards to the Department in 1975 and 1982.

### Problem Statement

EPA regularly adopts and amends New Source Performance Standards (40 CFR 60 of federal protection of environment rules) and emission standards for hazardous air pollutants (Part 61 of federal protection of environment rules). The Department of Environmental Quality (DEQ) has historically committed to bring its rules up to date with EPA rules on a once a year basis when the Department believes those rules are reasonable and applicable in Oregon. By generally maintaining delegation to administer these federal rules in Oregon, the Department believes it can provide a more efficient implementation of the rules and reduce the confusion of industry having to deal with two agencies (DEQ and EPA).

Five new and eight amended rules published by EPA in the last year could require new DEQ rule adoptions. These federal rules cover the following source categories:

<u>NSPS Subpart, Section</u>	<u>New (N) or (A) Amended Rule</u>	<u>Subject of Rule Change</u>	<u>Federal Register Date</u>
A, 60.11(b) and (e)	A	Increased Duration for First Opacity Reading	12/27/85
I, 60.90 & 60.91	A	Name Change for Hot Mix Asphalt Plants	01/21/86, 04/10/86
N, 60.141 to 60.144	A	Name Change for Basic Oxygen Process Facilities and Minor Rule Changes	01/02/86
Na, 60.140a to 60.145a	N	Secondary Emission Standard for Basic Oxygen Process Facilities	01/02/86
BB, 60.280 to 60.284	A	Total Reduced Sulfur Compounds (TRS) and Reporting Changes for Kraft Mills	05/20/86
EE, 60.310	A	Exemption Point Added for Metal Furniture Coating	04/30/85
KKK, 60.630 to 60.636	N	Leaks at Natural Gas Processing Plants	06/24/85
LLL, 60.640 to 60.648	N	Sulfur Dioxide Vapor (SO <sub>2</sub> ) From Natural Gas Processing Plants	10/01/85
000, 60.670 to 60.676	N	Nonmetallic Mineral Processing Plants	08/01/85
<u>NESHAPS Subpart, Section</u>	<u>New (N) or (A) Amended Rule</u>	<u>Subject of Rule Change</u>	<u>Federal Register Date</u>
B, 61.20 to 61.28	N	National Hazardous Emission Standard for Radon-222 Emissions From Underground Uranium Mines	04/17/85

<u>NESHAPS</u> <u>Subpart, Section</u>	<u>New (N)</u> <u>or (A)</u> <u>Amended</u> <u>Rule</u>	<u>Subject of Rule Change</u>	<u>Federal</u> <u>Register Date</u>
D, 61.44	A	Test Method Added to Measure Beryllium from Rocket Motor Firing	11/07/85
E, 61.53	A	Test Method Added to Measure Mercury from Chlor-Alkali Cells, etc.	11/07/85
Appendix B, Part 61	A	Test Methods Amended for Sources of Hazardous Air Pollutants	11/07/85

Authority for the Commission to act is given in Oregon Revised Statutes (ORS) 468.020 and 468.295(3) where the Commission is authorized to establish emission standards for sources of air contaminants. A public hearing notice and "Statement of Need for Rulemaking" is Attachment 1 of this memorandum.

#### Alternatives and Evaluation

The Department has agreed, in the Fiscal Year 1987 State and EPA Agreement, to bring its rules up-to-date annually with EPA's NSPS and NESHAPS rule changes, where appropriate and applicable.

Alternatives are:

1. The Commission could take NO ACTION.

A no-action consequence would be that both the Department and EPA staffs would have to review certain emission sources in Oregon, because the DEQ's rules would not have been kept up to date with EPA's rules. Thus, a review by each staff for their different rules would be necessary.

2. The Commission could adopt the past year's new and amended federal standards (in Oregon rule form).

This would further EPA-Department cooperation to achieve single, state jurisdiction and review of certain new and modified sources. This would also fulfill DEQ's commitment to EPA that DEQ would adopt federal NSPS and NESHAPS rule changes once each year (when reasonable and applicable) by the beginning of the first quarter of the federal fiscal year.

3. The Commission could adopt alternative 2 with the exception of two items: Non-Metallic Mineral Processing Rule 40 CFR 60, Subpart 000 and amendments to 40 CFR 60.11(b) (published in 50 FR 53108,

December 27, 1985). With respect to the Non-Metallic Processing Rule, the Department believes the compliance monitoring and tracking requirements for individual pieces of equipment (crushers, screens, conveyors, etc.) is burdensome, detracts from higher priority work, and results in little environmental improvement. The Department also believes remotely located sources that do not impact people or property should not be subject to these stringent requirements. The amendments to 40 CFR 60.11(b) require extensive opacity reading which the Department also believes requires too much time to be reasonable.

The Department prefers Alternative 3.

#### Rule Development Process

The Department has assembled a complete list of amendments to the federal standards, and the Federal Registers describing those rule changes, and has made appropriate changes in wording to fit these rules into the OAR format (see Attachment 2 for the proposed rule language).

The Commission authorized a public hearing for these rule additions at its July 25, 1986 meeting. Legal public notice requirements were met by publication of the hearing notice in August 15, 1986 Secretary of State's Bulletin and in the Oregonian. Hearing notices were also sent to the Department's mailing lists.

No one attended the September 15 public hearing. The Department received two letters supporting the exclusion of the Non-Metallic Mineral Processing Plant rule. This testimony is Attachment 4. The testimony points out that present regulation of Non-Metallic Mineral Processing Plants (mostly rock crushing operations) is sufficient. The Department has also concluded that the added record keeping and tracking would not measurably improve the environment, but would consume considerable staff time. The Department submitted its concerns and recommendations to EPA during the comment period. However, EPA chose to include the record keeping and tracking requirements.

The Department has also studied EPA's change to 40 CFR 60.11(b) where the first test of new equipment under NSPS now requires three hours of opacity readings for each specified emission point. Before, the duration of readings was left to the discretion of the person observing; usually six minutes of readings is sufficient. The Department believes that compliance with the opacity standard can generally be verified over a much shorter time period. EPA chose not to make any significant change on this, in spite of testimony against this three hour requirement.

The Department will pursue getting EPA to modify these two rules to be more manageable for states to administer through the State and Territorial Air Pollution Program Administrator's (STAPPA) applicable technical committee.

PROPOSED RULE CHANGES AND ADDITIONS

Standards of Performance for New Stationary Sources (NSPS)

Asphalt concrete plants, Subpart I of Title 40 Code of Federal Regulations, Parts 60.90 and 60.91 (40 CFR 60.90, 60.91) was amended by Volume 51 Federal Register page 3300 (51 FR 3300) on January 24, 1986 to change the facility's name from "Asphalt Concrete Plants" to "Hot Mix Asphalt Facilities." A minor change also occurred by 51 FR 12324, on April 10, 1986, where descriptions of the action taken on January 24, 1986, was corrected in three places. This change is proposed for OAR 340-25-575.

Standards of Performance for Iron and Steel plants, Subpart N, 40 CFR 60.141 through 60.144, was amended by 51 FR 150 on January 2, 1986 to change the title to "Standards of Performance for Primary Emissions From Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973." Four definitions were changed and a more lax emission concentration was allowed for closed hood controls. Minor changes were made in the Monitoring and Test Method sections. These changes are proposed for OAR 340-25-600.

Secondary emission standards for Basic Oxygen Process Furnaces, Subpart Na, 40 CFR 60.140a through 60.145a, was added by 51 FR 150 on January 2, 1986. Since there are no basic oxygen furnaces in Oregon, adding a new rule, OAR 340-25-602, to cover these fugitive emissions out of roof vents, will have no impact at this time.

Kraft Pulp Mills, Subpart BB, 40 CFR 60.280 to 60.284 was amended by 50 FR 18538 on May 20, 1986 to relax certain TRS emission limits and reporting requirements. Two of Oregon's eight Kraft pulp mills are covered by this rule: International Paper's mill at Gardiner, and Boise Cascade's mill at St. Helens. Since the more stringent Oregon rule on Kraft mills remains (OAR 340-25-150 through -205) in effect, and rule 340-25-805 clearly states that the more stringent shall apply, then the relaxation of this federal rule would have no effect in Oregon. However, DEQ prefers to keep Oregon's version of the federal rule 340-25-630 up-to-date with the revised federal rule, so as to avoid the confusion of leaving an obsolete federal rule on the books in Oregon.

Metal Furniture Coating, Subpart EE, 40 CFR 60.310, was amended by 50 FR 18248 on April 30, 1985 to exempt facilities where less than 3,842 liters per year (1015 gal/yr) are used in coating. No plants in Oregon are large enough, or are new enough, to be affected by this proposed rule change to OAR 340-25-642.

Leaks at Natural Gas Processing Plants, Subpart KKK, 40 CFR 60.630 through 60.636, was added by 50 FR 26124 on June 24, 1985. When the one natural gas processing plant in Oregon (in Columbia County near Mist) expands during the next few years, it will come under this proposed rule OAR 340-25-708.

SO<sub>2</sub> from Natural Gas Processing Plants, Subpart LLL, 40 CFR 60.640 through 60.648, was added by 50 FR 40160 on October 1, 1985. This new proposed rule, OAR 340-25-710, affects no existing sources since the natural gas from the Mist field is so low in sulfur that no desulfurization is needed.

Emission Standards and Procedural Requirements for Hazardous Air Contaminants NESHAPS

The test methods for Hazardous Air Contaminants, Appendix B, 40 CFR 61, were amended by 50 FR 46290 to 46295 on November 7, 1985. This requires that OAR 340-25-460(6)(a) be brought up to date by citing this latest revision to the federal test methods, incorporated by reference.

The same above federal rule change on November 7, 1985 also specified a test method in 40 CFR 61.44 for measuring beryllium. This requires that OAR 340-25-475 be brought up to date by citing the latest revision to the federal standard, incorporated by reference.

The same above federal rule change on November 7, 1985 amended the method for testing for mercury in 40 CFR 61.53. This requires that OAR 340-25-480(3)(d) be brought up to date by citing the latest revision to the federal test methods, incorporated by reference.

The National Emission Standard for Hazardous Air Pollutants; Standard for Radon-222 Emissions From Underground Uranium Mines, Subpart B, 40 CFR 61.20 through 61.28 was added by 50 FR 15392 on April 17, 1985. This new standard requires air tight bulkheads be fitted on all active underground uranium mines to contain the Radon-222 in all abandoned shafts. According to the Oregon Department of Geology and Mineral Industries, there are no active underground uranium mines in Oregon.

It is proposed to incorporate the new federal rule by reference (see Attachment 2, page 4, for proposed OAR 340-25-485), similar to the previous rule for Beryllium Rocket Motor Firing, another little used rule of this type. See the text of the complete federal rule in Attachment 3, and the text of the proposed OAR on page 4 of Attachment 2.

Summation

1. EPA adopted the first New Stationary Source Performance Standards (NSPS) in 1971 and the first National Emission Standard for Hazardous Air Pollutants in 1973.
2. To acquire delegation to administer the above federal rules in Oregon, the Commission adopted equivalent administrative rules in 1975 and subsequently received delegation.
3. The Commission adopted amendments to the NSPS rules in 1981, 1982, 1983, 1984, and in 1985 to bring them up to date with EPA rules. The Commission adopted amendments to the Hazardous Air Pollutant rules in 1982.

4. Historically, the Department has committed to bring its rules up to date with EPA rules on a once a year basis for those rules which the Department believes are reasonable and applicable in Oregon.
5. The proposed rule changes (Attachment 2) would bring the State rules up to date with the current federal rules with two exceptions: the rock crusher rule (40 CFR 60, Subpart 000) and revised opacity reading (40 CFR 60.11(b)). The Department is recommending both of these exceptions because of the amount of resources needed which we do not believe will result in any significant environmental improvement. The Department will pursue getting these two rules modified by the technical committee of STAPPA.
6. The sources affected by this proposed action are the following:
  - a. Hot Mix Asphalt Plants
  - b. Basic Oxygen Process Facilities, primary emissions
  - c. Basic Oxygen Process Facilities, secondary emissions
  - d. Kraft Pulp Mill Changes
  - e. Exemption point added for Metal Furniture Coating
  - f. Leaks at Natural Gas Processing Plants
  - g. SO<sub>2</sub> from Natural Gas Processing Plants
  - h. Hazardous Pollutant Emissions, Radon-222 from Active Underground Uranium Mines
  - i. Test Method Added to Measure Beryllium from Rocket Motor Firing
  - j. Test Method Added to Measure Mercury from Chlor-Alkali Cells, etc.
  - k. Test Methods Amended for Sources of Hazardous Air Pollutants
7. The proposed rules affect only facilities which may be built or modified in the future.
8. No one attended the September 15 hearing. Two written pieces of testimony supported the Department's recommendation to decline taking jurisdiction of the rock crushing rule.

Director's Recommendation

Based upon the Summation, it is recommended that the Commission adopt the proposed attached amendments to OAR 340-25-460 to 340-25-710, rules on

National Standards of Performance for New Stationary Sources and for Hazardous Air Contaminants, and to consider asking EPA for authority to administer the equivalent Federal Rules in Oregon.

EQC Agenda Item No. G  
October 24, 1986  
Page 8



Fred Hansen

- Attachments 1. Notice of Public Hearing with Attached Statement of Need  
for Rulemaking  
2. Proposed Rules 340-25-460 to 340-25-710  
3. Federal Rule for Underground Uranium Mines 40 CFR 61.20-28  
4. Testimony Against the Rock Crushing Rule

P.B. Bosserman:a  
AA5348  
(503) 229-6278  
September 24, 1986

# A CHANCE TO COMMENT ON . . .

New Federal Air Quality Rules To Be Made Into State Standards

Date Prepared: July 9, 1986  
Hearing Date: September 15, 1986  
Comments Due: September 16, 1986

**WHO IS AFFECTED:**

Industry which may build new, reconstruct, or modify air pollution sources in the categories listed below.

**WHAT IS PROPOSED:**

The Department of Environmental Quality (DEQ) is proposing to amend OAR 340-25-460 to 340-25-710 to add four and modify seven standards already in force under by the federal Environmental Protection Agency (EPA):

Item	40 CFR Subpart	Industry Affected
1.	I, 60.90 & 60.91	Hot Mix Asphalt Plants
2.	N, 60.141 & 60.144	Basic Oxygen Process Facilities, primary emissions
3.	Na, 60.140a to 60.145a	Basic Oxygen Process Facilities, secondary emissions
4.	BB, 60.280 to 60.284	Kraft Pulp Mill Changes
5.	EE, 60.310	Exemption point added for Metal Furniture Coating
6.	KKK, 60.630 to 60.636	Leaks at Natural Gas Processing Plants
7.	LLL, 60.640 to 60.648	SO <sub>2</sub> from Natural Gas Processing Plants
8.	B, 61.20 to 61.28	Hazardous Pollutant Emissions, Radon-222 from Active Underground Uranium Mines
9.	D, 61.44	Test Method Added to Measure Beryllium from Rocket Motor Firing
10.	E, 61.53	Test Method Added to Measure Mercury from Chlor-Alkali Cells, etc.
11.	Appendix B, Part 61	Test methods Amended for Sources of Hazardous Air Pollutants

**WHAT ARE THE HIGHLIGHTS:**

The Department is not proposing to adopt one new federal rule on rock crushers, and a change in the observing time from 6 minutes to 180 minutes for Test Method 9. The Department is studying staff surveillance and monitoring requirements for these two federal rules, and may or may not recommend seeking delegation, depending on the amount of resources needed.

**HOW TO COMMENT:**

The Department proposes to adopt these federal rules and to request EPA to delegate jurisdiction over those sources in Oregon to DEQ. This has been done previously with 37 other sources. This is considered a routine rulemaking action, since the sources must abide by an identical federal rule, already in force.

Copies of the complete proposed rule package may be obtained from the Air Quality Division in Portland (522 S.W. Fifth Avenue) or the regional office nearest you. For further information contact Peter Bosseman at (503) 229-6278.

A public hearing will be held before a hearings officer at:

11:00 a.m.  
Monday, September 15, 1986  
Room 4A, 4th Floor, Yeon Bldg.  
522 S.W. 5th, Portland, OR 97204

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ Air Quality Division, P.O. Box 1760, Portland, OR 97207, but must be received by no later than September 16, 1986.

**WHAT IS THE NEXT STEP:**

After public hearing, the Environmental Quality Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted rules will be submitted to the U. S. Environmental Protection Agency for delegation. The Commission's deliberation should come on October 24, 1986 as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need, Fiscal and Economic Impact Statement, and Land Use Consistency Statement are attached to this notice.

AA5349



P.O. Box 1760  
Portland, OR 97207

2/10/82

**FOR FURTHER INFORMATION:**

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

1-800-452-4011

Attachment 1  
Agenda Item No.  
October 24, 1986  
EQC Meeting

RULEMAKING STATEMENTS

for  
New Federal Rules to be  
Made Into State Standards

Pursuant to ORS 183.335, these statements provide information on the intended action to amend a rule.

STATEMENT OF NEED:

Legal Authority

This proposal amends Oregon Administrative Rules 340-25-460 to 340-25-710. It is proposed under authority of Oregon Revised Statutes 468.020(1) and 468.295(3) where the Environmental Quality Commission is authorized to establish different rules for different sources of air pollution.

Need for the Rule

The proposed changes bring the Oregon rules up-to-date with changes and additions to the federal "Standards of Performance for New Stationary Source", 40 CFR 60, and "National Emission Standards for Hazardous Air Pollutants", 40 CFR 61. As Oregon rules are kept up-to-date with the federal rules, then the federal Environmental Protection Agency (EPA) delegates jurisdiction for their rules to the Department, allowing Oregon industry and commerce to be regulated by only one environmental agency.

Principal Documents Relied Upon

1. Title 40 Code of Federal Regulations, as amended in recent Federal Registers.

<u>40 CFR Subpart</u>	<u>New (N) or (A) Amended Rule</u>	<u>Subject of Rule Change</u>	<u>Register Date</u>
A, 60.11(b) & (e)	A	Increased Duration for First Opacity Reading	12/27/85
I, 60.90 & 60.91	A	Name Change for Hot Mix Asphalt Plants	01/21/86, 04/10/86
N, 60.141 to 60.144	A	Name Change for Basic Oxygen Process Facilities and Minor Rule Changes	01/02/86
Na, 60.140a to 60.145a	N	Secondary Emission Standard for Basic Oxygen Process Facilities	01/02/86
BB, 60.280 to 60.284	A	TRS and Reporting Changes for Kraft Mills	05/20/86
EE, 60.310	A	Exemption Point Added for Metal Furniture Coating	04/30/85
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LLL, 60.640 to 60.648	N	SO <sub>2</sub> From Natural Gas Processing Plants	10/01/85

000, 60.670 to 60.676	N	Nonmetallic Mineral Processing Plants	08/01/85
B, 61.20 to 61.28	N	National Hazardous Emission Standard for Radon-222 Emissions From Underground Uranium Mines	04/17/85
D, 61.44	A	Test Method Added to Measure Beryllium from Rocket Motor Firing	11/07/85
E, 61.53	A	Test Method Added to Measure Mercury from Chlor-Alkali Cells, etc.	11/07/85
Appendix B, Part 61	A	Test Methods Amended for Sources of Hazardous Air Pollutants	11/07/85

FISCAL AND ECONOMIC IMPACT STATEMENT:

These federal rules are already promulgated by EPA. Adoption by and delegation to DEQ simplifies environmental administration generally at less cost.

Small businesses will incur less cost and processing time if these rules are administered by only one agency.

LAND USE CONSISTENCY STATEMENT:

The proposed rule changes appear to affect land use and appear to be consistent with the Statewide Planning Goals.

With regard to Goal 6 (air, water, and land resources quality), the rules are designed to enhance and preserve air quality in the affected area and are considered consistent with the goal.

Goal 11 (public facilities and services) is deemed unaffected by the rule. The rule does not appear to conflict with other goals.

Public comment on any land use issue involved is welcome and may be submitted in the same fashions as are indicated for testimony in this notice.

It is requested that local, state, and federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and with Statewide Planning Goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any apparent conflict brought to our attention by local, state, or federal authorities.

Emission Standards and Procedure Requirements  
for Hazardous Air Contaminants

General Provisions

340-25-460 (1) Applicability. The provisions of these rules shall apply to any source which emits air contaminants for which a hazardous air contaminant standard is prescribed. Compliance with the provisions of these rules shall not relieve the source from compliance with other applicable rules of the Oregon Administrative Rules, Chapter 340, or with applicable provisions of the Oregon Clean Air Act Implementation Plan.

(2) Prohibited activities:

(a) No person shall operate any source of emissions subject to these rules without first registering such source with the Department following procedures established by ORS 468.320 and OAR 340-20-005 through 340-20-015. Such registration shall be accomplished within ninety (90) days following the effective date of these rules.

(b) After the effective date of these rules, no person shall construct a new source or modify any existing source so as to cause or increase emissions of contaminants subject to these rules without first obtaining written approval from the Department.

(c) No person subject to the provisions of these emission standards shall fail to provide reports or report revisions as required in these rules.

(3) Application for approval of construction or modification. All applications for construction or modification shall comply with the requirements of rules 340-20-020 through 340-20-030 and the requirements of the standards set forth in these rules.

(4) Notification of startup. Notwithstanding the requirements of rules 340-20-020 through 340-20-030, any person owning or operating a new source of emissions subject to these emission standards shall furnish the Department written notification as follows:

(a) Notification of the anticipated date of startup of the source not more than sixty (60) days no less than thirty (30) days prior to the anticipated date.

(b) Notification of the actual startup date of the source within fifteen (15) days after the actual date.

(5) Source reporting and approval request. Any person operating any existing source, or any new source for which a standard is prescribed in these rules which had an initial startup which preceded the effective date

of these rules shall provide the following information to the Department within ninety (90) days of the effective date of these rules:

(a) Name and address of the owner or operator.

(b) Location of the source.

(c) A brief description of the source, including nature, size, design, method of operations, design capacity, and identification of emission points of hazardous contaminants.

(d) The average weight per month of materials being processed by the source and percentage by weight of hazardous contaminants contained in the processed materials, including yearly information as available.

(e) A description of existing control equipment for each emission point, including primary and secondary control devices and estimated control efficiency of each control device.

(6) Source emission tests and ambient air monitoring:

(a) Emission tests and monitoring shall be conducted using methods set forth in 40 CFR, Part 61, Appendix B, as published in the Code of Federal Regulations last amended by the Federal Register, [June 8, 1982, pages 24703 to 24716.] November 7, 1985, pages 46290 to 46295. The methods described in 40 CFR, Part 61, Appendix B, are adopted by reference and made a part of these rules. Copies of these methods are on file at the Department of Environmental Quality.

(b) At the request of the Department, any source subject to standards set forth in these rules may be required to provide emission testing facilities as follows:

(A) Sampling ports, safe sampling platforms, and access to sampling platforms adequate for test methods applicable to such source.

(B) Utilities for sampling and testing equipment.

(c) Emission tests may be deferred if the Department determines that the source is meeting the standard as proposed in these rules. If such a deferral of emission tests is requested, information supporting the request shall be submitted with the request for written approval of operation. Approval of a deferral of emission tests shall not in any way prohibit the Department from canceling the deferral if further information indicates that such testing may be necessary to insure compliance with these rules.

(7) Delegation of authority. The Commission may, when any regional authority requests and provides evidence demonstrating its capability to carry out the provisions of these rules relating to hazardous contaminants, authorize and confer jurisdiction within its boundary until such authority and jurisdiction shall be withdrawn for cause by the Commission.

...

## Emission Standard For Beryllium Rocket Motor Firing

340-25-475 The emission standard for Beryllium Rocket Motor Firing, 40 CFR, Part 61, Section 61.40 through 61.44, [adopted Friday, April 6, 1973, and] as last amended on [August 17, 1977 and March 3, 1978,] November 7, 1985, is adopted by reference and made a part of these rules. A copy of this emission standard is on file at the Department of Environmental Quality.

## Emission Standard for Mercury

340-25-480 (1) Applicability. The provisions of this rule are applicable to sources which process mercury ore to recover mercury, sources using mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide, and to any other source, the operation of which results or may result in the emission of mercury to the ambient air.

(2) Emission Standard. No person shall cause to be discharged into the atmosphere emissions from any source exceeding 2,300 grams of mercury during any 24 hour period, except that mercury emissions to the atmosphere from sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludges shall not exceed 3200 grams of mercury per 24-hour period.

(3) Stack sampling:

(a) Mercury ore processing facility:

(A) Unless a deferral of emission testing is obtained under subsection 340-25-460(6)(c) of these rules, each person operating a source processing mercury ore shall test emissions from his source, subject to the following:

(i) Within ninety (90) days of the effective date of these rules for existing sources or for new sources having startup dates prior to the effective date of this standard.

(ii) Within ninety (90) days of startup in the case of a new source having a startup date after the effective date of this standard.

(B) The Department shall be notified at least thirty (30) days prior to an emission test so that they may, at their option, observe the test.

(C) Samples shall be taken over such periods and frequencies as necessary to determine the maximum emissions occurring during any 24 hour period. Calculations of maximum 24 hour emissions shall be based on that combination of process operating hours and any variation in capacities or processes that will result in maximum emissions. No changes in operation which may be expected to increase total emissions over those determined by

the most recent stack test shall be made until estimates of the increased emissions have been calculated, and have been reported to and approved in writing by the Department.

(D) All samples shall be analyzed and mercury emissions shall be determined and reported to the Department within thirty (30) days following the stack test. Records of emission test results and other data needed to determine mercury emissions shall be retained at the source and made available for inspection by the Department for a minimum of two (2) years following such determination.

(b) Mercury chlor-alkali plant:

(A) Hydrogen and end-box ventilation gas streams. Unless a deferral of emission testing is obtained under subsection 340-25-460(6)(c), each person operating a source of this type shall test emissions from his source following the provisions of subsection (3)(a) of this rule.

(B) Room ventilation system:

(i) Unless a deferral of emission testing is obtained under subsection 340-25-460(6)(c), all persons operating mercury chlor-alkali plants shall pass all cell room air in forced gas streams through stacks suitable for testing.

(ii) Emissions from cell rooms may be tested in accordance with provisions of paragraph (3)(b)(A) of this rule or may demonstrate compliance with paragraph (3)(b)(B)(iii) of this rule and assume ventilation emissions of 1,300 grams/day of mercury.

(iii) If no deferral of emission testing is requested, each person testing emissions shall follow the provisions of subsection (3)(a) of this rule.

(c) Any person operating a mercury chlor-alkali plant may elect to comply with room ventilation sampling requirements by carrying out approved design, maintenance, and housekeeping practices. A summary of these approved practices shall be available from the Department.

(d) Stack sampling and sludge sampling at wastewater treatment plants shall be performed in accordance with 40 CFR 61.53(d) or 40 CFR 61.54, last amended by Federal Register [June 8, 1982, page 24703.] November 7, 1985, pages 46290 to 46295.

Work Practice Standard for Radon 222 Emissions from Underground Uranium Mines

340-25-485 The work practice standard for Radon-222 Emissions from active Underground Uranium Mines, 40 CFR, Part 61, Sections 61.20 through 61.28, as published in 50 FR 15392 on April 17, 1985, is adopted by reference and made a part of these rules. The standard requires airtight bulkheads to prevent Radon-222 from escaping from abandoned parts of uranium mines that are extracting greater than 10,000 tons of ore per year, or will extract more than 100,000 tons of ore during the life of the mine.

## Standards of Performance for New Stationary Sources

### Statement of Purpose

**340-25-505** The U.S. Environmental Protection Agency has adopted in **Title 40, Code of Federal Regulations, Part 60**, Standard of Performance for certain new stationary sources. It is the intent of this rule to specify requirements and procedures necessary for the Department to implement and enforce the aforementioned Federal Regulation.

### Definitions

**340-25-510** (1) "Administrator" herein and in **Title 40, Code of Federal Regulations, Part 60**, means the Director of the Department or appropriate regional authority.

(2) "Federal Regulation" means **Title 40, Code of Federal Regulations, Part 60**, as promulgated prior to [March 22, 1985.] May 21, 1986.

(3) "CFR" means Code of Federal Regulations.

(4) "Regional authority" means a regional air quality control authority established under provisions of ORS 468.505.

### Statement of Policy

**340-25-515** It is hereby declared the policy of the Department to consider the performance standards for new stationary sources contained herein to be minimum standards; and, as technology advances, conditions warrant, and Department or regional authority rules require or permit, more stringent standards shall be applied.

### Delegation

**340-25-520** The Commission may, when any regional authority requests and provides evidence demonstrating its capability to carry out the provisions of these rules, authorize and confer jurisdiction upon such regional authority to perform all or any of such provisions within its boundary until such authority and jurisdiction shall be withdrawn for cause by the Commission.

### Applicability

**340-25-525** This rule shall be applicable to stationary sources identified in rules 340-25-550 through 340-25-715 for which construction, reconstruction, or modification has been commenced, as defined in **Title 40, Code of Federal Regulations, 40 CFR 60.**

## General Provisions

340-25-530 Title 40, CFR, Part 60, Subpart A as promulgated prior to [March 22, 1985] May 21, 1986 is by this reference adopted and incorporated herein with the exception of the December 27, 1985 revision to 60.11(b). Subpart A includes paragraphs 60.1 to [60.16] 60.18 which address, among other things, definitions, performance tests, monitoring requirements, and modifications.

## Performance Standards

### Federal Regulations Adopted by Reference

340-25-535 Title 40, CFR, Parts 60.40 through 60.154, and 60.250 through 60.648, and 60.680 through 60.685 as established as final rules prior to [March 22, 1985] May 21, 1986, is by this reference adopted and incorporated herein, with the exception of the December 27, 1985 federal register revision to 40 CFR 60.11(b). As of [March 22, 1985] May 21, 1986, the Federal Regulations adopted by reference set the emission standards for the new stationary source categories set out in rules 340-25-550 through 340-25-715 (these are summarized for easy screening, but testing conditions, the actual standards, and other details will be found in the Code of Federal Regulations).

. . .

### Standards of Performance for Hot Mix Asphalt [Concrete Plants] Facilities

340-25-575 The pertinent federal rules are 40 CFR 60.90 to 60.93, also known as Subpart I. The following emission standards, summarizing the federal standards set forth in Subpart I, apply to each hot mix asphalt [concrete plant:] facility: Standards for Particulate Matter. No owner or operator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

(1) Contain particulate matter in excess of 90 mg/dscm (0.040 gr/dscf).

(2) Exhibit 20 percent opacity or greater.

. . .

### Standards of Performance for [Iron and Steel Plants] Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973

340-25-600 The pertinent federal rules are 40 CFR 60.140 to 60.144, also known as Subpart N. The following emission standards, summarizing the federal standards set forth in Subpart N, apply to each basic oxygen process furnace in iron and steel plants subject to this rule if the furnace was modified or constructed after June 11, 1973: Standards for

Particulate Matter. No owner or operator subject to the provisions of this rule shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

(1) Contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf); and

(2) Exit from a control device and exhibit 10 percent opacity or greater, except that an opacity of greater than 10 percent but less than 20 percent may occur once per steel production cycle.

(3) Contain particulate matter in excess of 68 mg/dscm (0.030 gr/dscf) as measured for the primary oxygen blow, if constructed, modified, or reconstructed after January 20, 1983.

Standards of Performance for Secondary Emissions From Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983

340-25-602 The pertinent federal rules are 40 CFR 60.140a to 60.145a, also known as Subpart Na. The following emission standards, summarizing the federal standards set forth in Subpart Na, apply to top-blown Basic Oxygen Process Facilities and hot metal transfer stations and skimming stations used with bottom-blown or top-blown Basic Oxygen Process Facilities, that commenced construction, modification, or reconstruction after January 20, 1983, in any iron and steel plant.

(1) Standard for Particulate Matter. No owner or operator shall discharge or cause the discharge into the atmosphere any secondary emissions that:

(a) Exit from the Basic Oxygen Process Facility (BOPF) shop roof monitor (or other building openings) and exhibit greater than 20 percent opacity during the steel production cycle of any top-blown BOPF or during hot metal transfer or skimming operations for any bottom-blown BOPF; except that an opacity greater than 10 percent but less than 20 percent may occur once per steel production cycle.

(b) Exit from a control device used solely for the collection of secondary emissions from a top-blown BOPF or from hot metal transfer or skimming for a top-blown or a bottom-blown BOPF and contain particulate matter in excess of 23 mg/dscm (0.010 gr/dscf).

(c) Exit from a control device used solely for the collection of secondary emissions from a top-blown BOPF or from hot metal transfer or skimming for a top-blown or a bottom-blown BOPF and exhibit more than 5 percent opacity.

(d) A fume suppression system used to control secondary emissions from an affected facility is not subject to paragraphs (b) and (c) of this standard.

(e) A control device used to collect both primary and secondary emissions from a BOPF is not subject to paragraphs (b) and (c) of this standard.

. . .

### Standards of Performance for Kraft Pulp Mills

**340-25-630** The pertinent federal rules are **40 CFR 60.280 to 60.286**, also known as **Subpart BB**. The standards for kraft pulp mills' facilities, summarizing the federal standards set forth in **Subpart BB**, are applicable only to a recovery furnace, smelt dissolving tank, lime kiln, digester system, brown stock washer system, multiple-effect evaporator system, [black liquor oxidation system,] and condensate stripper system built or modified after September 24, 1976:

(1) No owner or operator shall cause to be discharged into the atmosphere particulate matter:

(a) From any recovery furnace;

(A) In excess of 0.10 g/dscm (0.044 gr/dscf) corrected to 8 percent oxygen, or

(B) Exhibit 35 percent opacity or greater;

(b) From any smelt dissolving tank in excess of 0.10 g/Kg black liquor solids, dry weight (0.20 lb/ton);

(c) From any lime kiln;

(A) In excess of 0.15 g/dscm (0.067 gr/dscf) corrected to 10 percent oxygen, when gaseous fossil fuel is burned;

(B) In excess of 0.30 g/dscm (0.13 gr/dscf) corrected to 10 percent oxygen, when liquid fossil fuel is burned.

(2) No owner or operator shall cause to be discharged in the atmosphere Total Reduced Sulfur compounds, (TRS), which are hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide:

(a) From any digester system, brown stock washer system, multiple-effect evaporator system, [black liquor oxidation system,] or condensate stripper system in excess of 5.0 ppm by volume on a dry basis, corrected to the actual oxygen content of the untreated gas stream;

(b) From any straight kraft recovery furnace in excess of 5.0 ppm by volume on a dry basis corrected to 8 percent oxygen;

(c) From any cross recovery furnace in excess of 25 ppm by volume on a dry basis, corrected to 8.0 percent oxygen;

(d) From any smelt dissolving tank in excess of [0.0084] 0.016 g/Kg black liquor solids, dry weight ([0.0168] 0.033 lb/ton);

(e) From any lime kiln in excess of 8.0 ppm by volume on a dry basis, corrected to 10 percent oxygen.

...

#### **Standards of Performance for Metal Furniture Surface Coating**

340-25-642 The pertinent federal rules are 40 CFR 60.310 to 60.316, also known as Subpart EE. The following emission standard, summarizing the federal standard set forth in Subpart EE, applies to metal furniture surface coating operations in which organic coatings are applied which commenced construction, modification, or reconstruction after November 28, 1980, that use 3,842 liters of coating (as applied) or more per year.

Standard for Volatile Organic Compounds: No owner or operator shall cause to be discharged into the atmosphere Volatile Organic Compounds in excess of 0.90 kilograms per liter of coating solids applied.

...

#### **Standards of Performance for Leaks from Onshore Natural Gas Processing Plants**

340-25-708 The pertinent federal rules are 40 CFR 60.630 to 60.636, also known as Subpart KKK. The emission standards set forth in Subpart KKK apply to each onshore natural gas processing plant that commenced construction, reconstruction, or modification after January 20, 1984. The detailed standards for VOC leaks from these plants are set forth in 40 CFR 60.632 through 60.634, three pages of detailed rules.

#### **Standards of Performance for SO<sub>2</sub> from Onshore Natural Gas Processing Plants**

340-25-710 The pertinent federal rules are 40 CFR 60.640 to 60.648, also known as Subpart LLL. The emission standards set forth in Subpart LLL, paragraph 60.642 and Tables 1 and 2 attached thereto, apply to each onshore natural gas processing plant that commenced construction, or modification after January 20, 1984, which emits 2 long tons per day or more of hydrogen sulfide (expressed as sulfur) in the acid gas.

...

AS3200

**List of Subjects in 40 CFR Part 61**

Air pollution control, Hazardous materials, Asbestos, Beryllium, Mercury, Vinyl chloride, Benzene, Arsenic, Radionuclides.

Dated: April 10, 1985.

Lee M. Thomas,  
Administrator.

Part 61 of Chapter 1 of Title 40 of the Code of Federal Regulations is amended by adding the following Subpart B consisting of §§ 61.20 through 61.28:

**PART 61—[AMENDED]**

**Subpart B—National Emission Standard for Radon-222 Emissions from Underground Uranium Mines**

Sec.

61.20 Applicability.

61.21 Definitions.

61.22 Standard.

61.23 Alternatives Standard.

61.24 Bulkhead Inspection and Testing.

61.25 Bulkhead Repair.

61.26 Recordkeeping.

61.27 Reporting Requirements.

61.28 Source Reporting and Waiver Request.

Authority: Sec. 112 and 301(a) Clean Air Act, as amended, 42 U.S.C. 7412, 7601(a).

**Subpart B—National Emission Standard for Radon-222 Emissions from Underground Uranium Mines**

**§ 61.20 Applicability.**

The provisions of this subpart are applicable to an owner or operator of an active underground uranium mine which:

(a) Has mined or will mine over 100,000 tons of ore during the life of the mine; or

(b) Has had or will have an annual ore production rate greater than 10,000 tons, unless it can be demonstrated that the mine will not exceed a total ore production of 100,000 tons during the life of the mine.

**§ 61.21 Definitions.**

As used in this subpart, all terms not defined here shall have the meaning given them in the Clean Air Act or in subpart A of Part 61 and the following terms shall have the specific meanings given below:

(a) "Abandoned area" means a deserted mine area in which work has ceased and in which further work is not intended. Areas which function as escapeways, and areas formerly-used as lunchrooms, shops, and transformer or pumping stations are not considered abandoned areas. Except for designated ventilation passageways designed to minimize the distance to vents, worked-out mine areas are considered

abandoned areas for the purpose of this subpart.

(b) "Active mine" means an underground uranium mine from which ore or waste material is currently removed by conventional methods.

(c) "Area" means a man-made underground void from which ore or waste has been removed.

(d) "Bulkhead" means an air-restraining barrier constructed for long-term control of radon-222 and radon-222 decay product levels in mine air.

(e) "Inactive mine" is a mine from which uranium ore has been previously removed but which is not an active mine as of the effective date of the standard. Inactive mines which become active mines after the effective date of the standard are considered new sources under the provisions of subparts A and B of this part.

(f) "Modification" as applied to an active underground uranium mine means any major change in the method of operation or mining procedure which will result in an increase in the amount of radon-222 emitted to air. The normal development or operation of an active mine, even though it results in an increase in emissions, is not considered a modification for the purposes of this subpart.

(g) "Temporarily abandoned area" means a mine area in which further work is not intended for at least six months. Areas which function as escapeways, formerly-used lunchrooms, shops, and transformer or pumping stations are not considered abandoned areas. Except for designated ventilation passageways designed to minimize the distance to vents, worked-out mine areas are considered temporarily abandoned areas for the purpose of this subpart if work is not intended in the area for at least six months.

(h) "Underground uranium mine" means a man-made underground excavation made for the purpose of removing material containing uranium for the principal purpose of recovering uranium.

(i) "Work" means mining activity done in the usual and ordinary course of developing and operating a mine.

**§ 61.22 Standard.**

(a) An owner or operator of an underground uranium mine subject to this subpart shall install and maintain bulkheads to isolate all abandoned and temporarily abandoned areas according to the following requirements:

(1) The bulkhead shall be a structure designed and constructed for long-term control of the isolated area and shall be sealed to minimize air leakage through

the bulkhead. The bulkhead shall be of sufficient structural strength to resist mechanical abuse, blasting shocks, air pressure differentials, and rock movement for an extended period of time in the mine-operating environment. The basic bulkhead structure may consist of a timber or metal stud frame, covered with lumber, expanded metal lath, plywood, or other sheet products. It may be a continuous nonporous membrane or it may support such a membrane. A sealant shall be applied onto the basic structure and in the joints between the structure and the rock to form a continuous seal and radon barrier. The sealant shall be of a type that will provide a protective seal, and will not easily crack or develop holes or leaks. A sealant may consist of coatings of mortar, masonry, latex, urethane foam, or similar materials. A properly constructed and sealed bulkhead shall have no visible cracks or gaps.

(2) If negative pressure behind the bulkhead is used, then a maximum of 20 percent of the total volume of air contained in the isolated area can be exhausted per day.

(3) As mine areas become abandoned or temporarily abandoned after the applicable date of this standard, the mine owner or operator must install a bulkhead in compliance with the provisions of § 61.22(a) within 30 days of the area becoming abandoned or temporarily abandoned.

(b) Upon written application from an owner or operator of an underground uranium mine subject to this subpart, the Administrator may approve alternative bulkhead designs or construction, or other methods for isolating abandoned or temporarily abandoned areas, if such alternatives can be shown to provide isolation of the area equivalent to the requirements of § 61.22(a)(1).

#### § 61.23 Alternative Standard.

(a) If compliance with the requirements of § 61.22 will result in increased radon-222 decay product concentrations in the active areas of the mine, will require workers to enter unsafe areas, or will otherwise be impractical to achieve because of unique or unusual circumstances, then the owner or operator of an existing source (i.e., existing active mine) may apply to the Administrator for an alternative standard. The Administrator may establish an alternative standard if the applicant demonstrates that an alternative is necessary to provide for the health and safety of the workers and will minimize the exposure of nearby individuals and the general population to radon-222 decay products, to the

extent practical. Applications for an alternative standard shall be made within 90 days of the effective date of the standard and include the following information:

(1) The reasons for requesting an alternative;

(2) A description of the alternative requested;

(3) A description of all measures that have been taken or will be taken by the mine owner or operator to minimize the exposure of nearby individuals and the general population to radon-222 decay products, to the extent practical.

(4) A schedule for complying with the alternative standard.

(b) An inactive mine which again becomes active may request an alternative standard under § 61.23(a). Application for an alternative standard must be submitted as part of an application for approval of construction or modification as required under § 61.07.

(c) Requests for an alternative standard shall be sent to the Assistant Administrator for Air and Radiation (ANR-443), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460.

#### § 61.24 Bulkhead Inspection and Testing.

An owner or operator of an underground mine subject to the requirements of § 61.22 shall conduct the following bulkhead inspections and tests:

(a) A visual inspection of the condition of each bulkhead required under § 61.22(a) shall be conducted every three months by a qualified representative of the mine owner or operator to determine if, in his or her judgment, the integrity of the bulkhead is in compliance with the requirements of § 61.22(a)(1). A record of each inspection shall be made in accordance with the requirements of § 61.26.

(b) For bulkheaded areas maintained under negative pressure, measurement of the air exhaust rate from the area shall be made at least every three months to determine compliance with the requirement of § 61.22(a)(2). A record of each exhaust rate measurement shall be made in accordance with the requirements of § 61.26.

(c) Upon written application from an owner or operator of an underground uranium mine subject to this subpart, the Administrator may approve alternative testing and inspection procedures if such alternative procedures can be shown to provide reasonable assurance that the mine is in compliance with the requirements of § 61.22(a).

#### § 61.25 Bulkhead Repair.

Bulkheads determined not to be in compliance with the requirements of § 61.22(a) during inspections required under § 61.24 shall be repaired within ten days in accordance with the requirements of § 61.22(a).

#### § 61.26 Recordkeeping.

Records of inspections and tests required under § 61.24 shall be maintained as described below. These records shall include a bulkhead identification number and location and the date of each inspection or test.

(a) The results of each inspection required under § 61.24(a) shall be recorded as follows:

(1) A description of the condition of the bulkhead including identification of any damage and the extent of damages.

(2) A determination that the bulkhead is in compliance with the specifications of § 61.22(a) or that repairs are needed.

(b) A record shall be maintained for each bulkhead repaired under the requirements of § 61.25.

(c) A record shall be maintained for each air flow rate measurement conducted under the requirements of § 61.24(b). These records shall show the results of each test and the method used. The percent of the total air volume behind the bulkheaded area which is exhausted per day at the measured flow rate shall be recorded.

(d) Records of inspections and tests shall be maintained at the mine and made available for inspection and copying by the Administrator for a minimum of two years.

(e) A current map or schematic of the mine showing the location of each bulkhead required under § 61.22(a) and the approximate air volume of the isolated area shall be maintained. Each bulkhead shall be assigned an identification number which shall be used in inspections and tests, and the reporting requirements of §§ 61.24 and 61.26. This map shall be kept at the mine and be made available for review by the Administrator.

(Approved by the Office of Management and Budget under the control number 2060-0115)

#### § 61.27 Reporting Requirements.

(a) An owner or operator of an underground uranium mine subject to the requirements of this subpart shall submit a certification to the Administrator by March 1, 1986, and annually thereafter. This certification shall be based on information and data concerning the calendar year immediately preceding the required data for submission of the certification and shall consist of a statement that the

bulkheading requirements of § 61.22(a) or any alternative standard established under § 61.23 have been implemented.

(b) If a waiver of compliance is granted, this certification is to be submitted on a date scheduled by the Administrator.

(Approved by the Office of Management and Budget under control number 2060-0115)

**§ 61.28 Source Reporting and Waiver Request.**

(a) The owner or operator of any existing source, or any new source to which a standard prescribed under this subpart is applicable which had an initial startup which preceded the effective date of a standard prescribed under this subpart shall, within 90 days after the effective date, provide the following information in writing to the Administrator:

(1) Name and address of the owner or operator;

(2) The location of the source;

(3) A brief description of the nature, size, design, and method of operation of the mine including: (i) current or expected annual ore production rates, (ii) current cumulative ore production, (iii) expected cumulative ore production over the life of mine;

(4) The number of abandoned and temporarily abandoned areas in the mine and the number of these areas which are isolated by bulkheads; and

(5) A statement by the owner or operator of the source as to whether he can comply with the standard prescribed in this subpart within 90 days of the effective date.

(b) An owner or operator of an existing underground uranium mine (i.e., existing source) unable to operate in compliance with the standard prescribed under this subpart or lacking sufficient information to apply for an alternative standard within 90 days of the effective date of the standard may request a waiver of compliance with

such standard for a period not exceeding two years from the effective date. Any request shall be in writing and shall include the following information:

(1) The reasons for requesting the waiver;

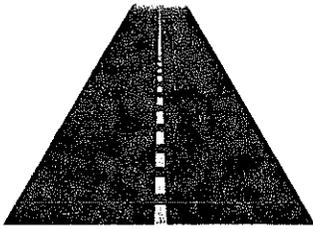
(2) A schedule for achieving compliance with the standard, or if applicable, the alternative standard, including the steps which will be taken to come into compliance including a date by which each step will be achieved; and

(3) Interim emission control steps will be taken during the waiver period.

(c) Changes in the information provided under paragraph (a) of this section shall be provided to the Administrator within 30 days after such change, except that if changes will result from modification of the source, as defined in §§ 61.02, the provisions of § 61.07 and 61.08 are applicable.

[FR Doc. 85-9200 Filed 4-16-85; 8:45 am]  
BILLING CODE 5560-50-M

JAMES E. BRITTON  
Executive Director  
GARY T. BAKER  
President  
TOM WEIR  
Vice President  
JOE PERRIGO  
Secretary/Treasurer



ASPHALT PAVEMENT  
ASSOCIATION OF OREGON

3747 Market Street, N.E. - Salem, Oregon 97301  
(503) 363-3858

July 23, 1986

*RR 11, 7/28*  
Department of Environmental Quality  
Air Quality Division  
P.O. Box 1760  
Portland, Oregon 97207

Re: Agenda Item No. E, July 25, 1986 EQC Meeting

Gentlemen:

The Asphalt Pavement Association of Oregon will not present adverse comment on the proposal to change Asphalt Concrete Plants to Hot Mix Asphalt Facilities in 40CFR 60.90, 60.91. The staff suggestion to defer consideration of new rules for Nonmetallic Mineral Processing Plants (000,60.670 to 60.675) is supported.

If further consideration is given to new rules for Nonmetallic Mineral Processing Plants, please provide notice to this Association.

Very truly yours,

James E. Britton, P.E.  
Executive Director

JEB/cs

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4 September 1986

Peter Bosserman *PA 4/5*  
DEPT OF ENVIRONMENTAL QUALITY  
PO Box 1760  
Portland OR 97207

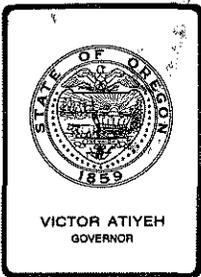
Dear Mr. Bosserman,

Your public notice announcing proposed amendments to OAR 340-25-460 to 340-25-710, plans to modify standards already in force by the federal Environmental Protection Agency. We have reviewed your proposed rule package and support the direction the rule package is taking. The staff decision at this time to not include added regulations for dust control for non-metallic mineral processing plants is consistent with the fact that there is not a problem now associated with dust from these sources. One only needs to look at Ross Island Sand and Gravel and Western Pacific Construction Materials' crushing operations in downtown Portland to verify this fact. These operations alone account for nearly half of the crushing activities in the Portland metro area. We also think that until the major sources of dust pollution (highways and agriculture) are regulated, any improvement that could be obtained from additional regulation of non-metallic mineral processing plants would be insignificant. In fact, we believe that total elimination of dust from these sources would not be measurable.

If I can provide any assistance to you, please do not hesitate to contact me.

Sincerely,

Richard L. Angstrom, Managing Director



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Agenda Item No. H, October 24, 1986, EQC Meeting

Public Hearing and Proposed Adoption of Amendments to the State Implementation Plan (OAR 340-20-047) Which Include Lane Regional Air Pollution Authority Modifications to Their: 1) Total Suspended Particulate Control Strategy for the Eugene-Springfield AQMA, and 2) New Source Review Rules and Associated Definitions, Including Stack Height.

### Background

In order to meet Federal requirements, certain rules and plans of the Lane Regional Air Pollution Authority (LRAPA) are incorporated into the Federally enforceable Clean Air Act State Implementation Plan (SIP) Rule (OAR 340-20-047).

The Environmental Quality Commission (EQC) incorporated all previous applicable LRAPA rules and plans into the SIP through adoption of the consolidated SIP on April 25, 1986.

Subsequently, LRAPA has amended two components of their rules and plans contained in the SIP.

In response to a request from the Environmental Protection Agency (EPA), LRAPA brought its total suspended particulate (TSP) control strategy for the Eugene-Springfield Air Quality Maintenance Area (AQMA) up-to-date. This update included revising LRAPA's schedule to study new control strategies from 1986 to 1988. This schedule extension will allow LRAPA time to evaluate new potential strategies to deal with wood heating, fugitive dust, and open burning. Additionally, the extension will allow LRAPA time to gather information on 10 microns and less particulate size to provide a foundation to develop a new 10 micron size control strategy when EPA adopts a new fine particle standard. The date to attain the secondary TSP (welfare protection related) standard has also been extended by LRAPA

from December 1987 to December 1992 to allow needed time to adopt and implement new non-traditional source control strategies.

EPA has reviewed LRAPA's amendment to the Eugene-Springfield AQMA TSP control strategy. EPA indicated it is acceptable.

LRAPA has also amended its New Source Review rules including the Stack Height provisions in response to changes in a comparable Federal rule that was made as the result of a recent court action. The amended LRAPA rules, among other things, add new exemptions and doesn't allow consideration in modelling of other factors affecting plume rise like combining plumes. DEQ has previously made similar modifications to comparable State rules.

### Problem Statement

In order to incorporate amendments to LRAPA rules and plans into the SIP, it is necessary for the EQC to amend the SIP Rule (OAR 340-20-047) through normal rulemaking procedures.

Attachment 1 contains the necessary Rulemaking Statements. Attachment 2 contains the Public Hearing Notice. Attachment 3 contains the proposed LRAPA SIP revision.

### Alternatives and Evaluation

The LRAPA amendments to their Eugene-Springfield AQMA TSP control strategy and New Source Review Rules are at least as strict as comparable State plans and rules, and are considered satisfactory to the EPA.

The EQC could conduct the necessary public hearing at the October 24, 1986 EQC meeting and adopt the SIP revision, assuming no adverse testimony. Or the EQC could defer testimony to another hearing date before a hearings officer, or conduct the hearing and defer final action to the next EQC meeting.

Because of the uncontroversial nature of these SIP revisions, it would save resources and be expedient for the EQC to conduct the hearing and adopt the SIP revisions at the same meeting.

For future similar actions, additional administrative work could be saved if the EQC authorized the Director to designate LRAPA to act as hearings officer for the EQC at the LRAPA rulemaking public hearing. The EQC would then only need to consider adoption of the LRAPA SIP revisions at a subsequent EQC meeting. Such a delegation should be conditioned upon the Department finding in each case that the LRAPA rules or plans are at least as stringent as comparable State Rules or Plans.

### Summation

- 1) The EQC must amend the SIP through normal rulemaking procedures to incorporate any LRAPA rule, plan or amendment into the SIP.

- 2) LRAPA has modified its Eugene-Springfield AQMA TSP control strategy at the request of EPA to bring it up-to-date and they have modified their New Source Review Rule, including the Stack Heights provision as the result of changes to a comparable Federal rule. Both changes are acceptable to EPA and are at least as stringent as comparable State rules and plans.
- 3) It would be expeditious and a savings of resources for the EQC to conduct a public hearing and adopt the subject SIP revisions at the same meeting, assuming no adverse public testimony.
- 4) In order to further streamline the process, it would be desirable for the EQC to authorize the Director to designate LRAPA as the EQC hearings officer for future similar SIP revisions. This designation by the Director would be under the condition that the Department finds the proposed LRAPA rule or plan is at least as stringent as comparable State rules or plans prior to the LRAPA hearing.

#### Director's Recommendations

Based on the Summation, it is recommended that the EQC conduct a public hearing and consider adoption of LRAPA amendments to their Eugene-Springfield AQMA TSP control strategy and New Source Review Rules, including the Stack Height rule (Attachment 3) as revisions to the State Implementation Plan, OAR 340-20-047. It is further recommended that the EQC authorize the Director to designate LRAPA to act as hearings officer for the EQC on future LRAPA SIP revisions under the condition that the DEQ finds the proposed LRAPA rules or plans at least as stringent as comparable State rules and plans.



Fred Hansen

- Attachments
1. Rulemaking Statements
  2. Public Hearing Notice
  3. LRAPA Amended TSP Control Strategy for the Eugene-Springfield AQMA and LRAPA Amended New Source Review Rules, including Stack Heights.

J.F. KOWALCZYK:a  
AA5493  
229-6499  
September 26, 1986

RULEMAKING STATEMENTS

for

Incorporating into the State Implementation Plan for Clean Air  
LRAPA's Revisions to New Source Review Rules  
and Definitions, and Revisions  
to LRAPA's TSP Attainment Plan

Pursuant to ORS 183.335, these statements provide information on the intended action to amend a rule.

STATEMENT OF NEED:

Legal Authority

This proposal amends OAR 340-20-047, the State Implementation Plan for Clean Air. It is proposed under authority of ORS 468.305 and 468.535(2).

Need for the Rule

In order for Lane Regional Air Pollution Authority (LRAPA) to administer Federal programs in Lane County, the applicable LRAPA rules and plans must be incorporated into the State Implementation Plan.

Principal Documents Relied Upon

1. July 16, 1986 letter, LRAPA (D. R. Arkell) to DEQ (T. R. Bispham).
2. Affidavits of July 8 Hearing Advertisements.
3. Staff report for July 8 hearing on Plans for Particulate.
4. Amendments to Plan, new Section 4.6.12.
5. Minutes of July 8 LRAPA board meeting, approving plan.
6. June 25, 1986 letter, EPA (George Abel) to LRAPA (D. R. Arkell) approving draft of SIP revision.
7. May 19, 1986 letter from D. R. Arkell, LRAPA, to T. R. Bispham, DEQ, regarding "Recently Adopted Amendments to LRAPA Rules: Title 14, 'Definitions,' and Title 38, 'New Source Review.'"
8. May 22, 1986 letter from G. Abel, EPA, to D. R. Arkell, LRAPA, same subject.
9. August 8, 1986 letter from D. R. Arkell, LRAPA, to G. Abel, EPA, same subject.

#### FISCAL AND ECONOMIC IMPACT STATEMENT:

The proposed changes to the State Implementation Plan for TSP in the Eugene-Springfield AQMA have no direct fiscal and economic impact. As elements of the plan are developed, fiscal resources will be expended. Economic impacts may come later as rules are changed or new ones promulgated, but economic impacts will be addressed and public hearings held before any rule becomes final.

The rule changes to the New Source Review Rule affect no existing sources. New sources, or existing sources proposing future changes, will have to comply with existing federal rules very similar to these LRAPA rules described above. So, the changes proposed only simplify a regulated firm's work, as the regulated firm must comply with existing federal rules in any case.

#### LAND USE CONSISTENCY STATEMENT:

The proposed changes appear to affect land use and appear to be consistent with the Statewide Planning Goals.

With regard to Goal 6 (air, water, and land resources quality), the plan's changes are designed to enhance and preserve air quality in the affected area and are considered consistent with the goal.

Goal 11 (public facilities and services) may be marginally affected by the plan change. The plan does not appear to conflict with other goals.

Public comment on any land use issue involved is welcome and may be submitted in the same fashions as are indicated for testimony in this notice.

It is requested that federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and with Statewide Planning Goals within their expertise and jurisdiction. Local agencies have already been solicited for comments on the proposed amendments; none were received.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any apparent conflict brought to our attention by local, state, or federal authorities.

AS3571.A

*Oregon Department of Environmental Quality*

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

**LRAPA's Rules, Plans, as Changes to the SIP  
NOTICE OF PUBLIC HEARING**

Date Prepared: September 12, 1986

Hearing Date: October 24, 1986

Comments Due: October 23, 1986

**WHO IS AFFECTED:** Lane Regional Air Pollution Authority (LRAPA) and sources regulated by LRAPA.

**WHAT IS PROPOSED:** The Department of Environmental Quality is proposing to amend OAR 340-20-047, the State Implementation Plan (SIP), to incorporate certain Rules and plans previously adopted by LRAPA.

**WHAT ARE THE HIGHLIGHTS:** The LRAPA has brought its New Source Review Rule, including a Stack Height and Dispersion Technique rule, and total suspended particulate strategy for the Eugene-Springfield Air Quality Maintenance Area, up-to-date with the federal rule and requirements.

Upon incorporation into the State Implementation Plan by EQC adoption, and approval by the Federal Environmental Protection Agency (EPA), these rules and this plan will become Federally enforceable and allow LRAPA to administer these Federal programs in Lane County.

**HOW TO COMMENT:** Copies of the complete proposed rule package may be obtained from the Air Quality Division in Portland (522 S.W. Fifth Avenue) or the regional office nearest you. For further information contact Peter Bosserman at 229-6278 in Portland.

A public hearing will be held before the EQC on:

The EQC meeting begins at 9:00 a.m.  
October 24, 1986  
Yeon Bldg, Room 1400, 522 SW 5th  
Portland, Oregon

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ Air Quality Division, P.O. Box 1760, Portland, OR 97207, but must be received by no later than October 23, 1986.



P.O. Box 1760  
Portland, OR 97207

8/16/84

**FOR FURTHER INFORMATION:**

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

**WHAT IS THE  
NEXT STEP:**

After public hearing the Environmental Quality Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted rules will be submitted to the U. S. Environmental Protection Agency as part of the State Clean Air Act Implementation Plan. The Commission's deliberation should come on October 24, 1986 as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need, Fiscal and Economic Impact Statement, and Land Use Consistency Statement are attached to this notice.

AS3779

Agenda Item No. 4  
LRAPA Board of Directors Meeting  
July 8, 1986

RECEIVED  
JUL 12 1986  
AIR QUALITY CONTROL

TO: Board of Directors  
FROM: Donald R. Arkeil, Director  
SUBJ: Proposed Amendments to the State Implementation Plan for Total Suspended Particulate

Background

The TSP SIP revision for the Eugene-Springfield AQMA, adopted by the Board in 1980 and approved by the EPA in 1982, contained a three-phase plan of action for attaining the TSP ambient air quality standards by December 31, 1987. Phase I of the plan included control strategies to pave unpaved roads in Eugene and Springfield, control emissions from dry material handling conveying systems, and reduce home woodheating emissions through the promotion of home weatherization programs. All of these strategies have been implemented. Phase II of the plan included a series of studies to aid in the development of additional control strategies. Most of these studies have been implemented. Phase III of the plan is to be an evaluation of the Phase II studies and the development of additional control strategies which would assure the attainment of TSP standards by December 31, 1987.

However, in the interim, EPA has proposed a revision of the federal standards for particulate matter which uses as an indicator measurements of particulate in the size range of 10 micrometers or less (PM<sub>10</sub>). As a result of this action, and with limited resources to perform TSP studies, LRAPA has been emphasizing PM<sub>10</sub> database gathering, preferentially to TSP strategy development. EPA has encouraged our changing emphasis in this program, which has meant that the Phase III portion of the action plan has not been implemented. The EPA has

called upon LRAPA to report on the SIP strategy implementation (a copy of the summary status report is attached) and, as a part of the FY 85/86 State/EPA Agreement, LRAPA is committed to updating the AQMA Plan for Total Suspended Particulate to reflect the current needs to attain and maintain federal secondary TSP standards.

At its July 9, 1985 meeting, the Board directed the LRAPA Advisory Committee to review the AQMA Plan and make recommendations to the board for changes to the plan. Specifically, the committee was asked to do the following:

1. Review status of implementation of approved AQMA Plan and its effectiveness.
2. Identify those areas where further effort may be needed to address both TSP and PM<sub>10</sub>.
3. Develop recommendations regarding accomplishment of future work and its scheduling, in relation to revisions in federal ambient air quality standards for particulate matter.
4. Make other recommendations pertaining to the AQMA Plan which may be somewhat outside the original scope of this request, but nonetheless would assist the board in making future policy decisions.

#### SIP Amendment Discription

The committee has completed its work, as directed by the board, and has developed a proposed TSP SIP Amendment. This amendment would replace the existing Phase II studies with a revised schedule for evaluation and implementation of additional control measures. The proposed new workplan contains a series of projects to develop additional control strategies to insure attainment of the TSP standards. In addition, in an economy of effort, a PM<sub>10</sub> database is being developed in conjunction with the TSP database. This will allow LRAPA to respond expeditiously, if and when the EPA promulgates new particulate standards. This latter effort is important since EPA will require a PM<sub>10</sub> SIP be developed within nine months of promulgation of a new standard.

The proposed new studies would take a close look at several alternative control strategies, including open burning, fugitive dust, and home woodheating emissions evaluations and the potential effect of the new State Certification Program for woodstoves. Other studies would evaluate the impact of field and slash burning on the AQMA under the revised smoke management plan. TSP emission inventory improvement will include a PM<sub>10</sub> component which will be used as a database for the PM<sub>10</sub> SIP development, which will begin about the first of 1987.

According to the proposed new schedule, work would begin on the database improvement projects in July of 1986. Completion is scheduled for December of 1987. A citizen's group, such as the LRAPA Advisory Committee, will begin work on development of additional control strategies, with new rule adoption scheduled for December of 1988. This schedule will be modified to accommodate the 9-month planning requirement when the new PM<sub>10</sub> standard is promulgated.

This proposed amendment has been through the A-95 review process with finding of no significant conflict with the plans, policies or programs of state or local government. Notice of today's hearing was published in the Cottage Grove Sentinel, The Eugene Register-Guard and The Springfield News, and no comments have been received.

#### Director's Recommendation

It is the recommendation of the Director that the board adopt the proposed TSP SIP amendment.

REJ/mjd

4.6.12 1986 Amendment

4.6.12.1 Introduction

The Eugene-Springfield TSP SIP Revision adopted by the LRAPA Board of Directors in 1980 and approved by the EPA in 1982 contained a plan of action which had three phases. The first phase of this plan included control strategies to pave unpaved roads, control emissions from dry material handling air conveying systems, and reduce woodstove emissions through the promotion of home weatherization. All of these have been implemented. This has resulted in significant emission reductions (see 1984 RFP report in Appendix). Phase II of this plan contained a series of studies to aid in the development of additional control strategies. Most of this work has been completed. Phase III involved the evaluation of the Phase II studies and the development of additional control strategies which would assure attainment of the TSP secondary standard by 1987. In the interim, EPA has proposed a revision of the federal standards for particulate matter which would use as an indicator measurements of particulate in the size range of 10 um or less (PM<sub>10</sub>). As a result of the proposed particulate standard revisions, with limited resources to perform TSP studies, and with the encouragement of EPA, LRAPA has been emphasizing PM<sub>10</sub> data base gathering preferentially to TSP strategy development. As a result, the Phase III portion of the action plan has not been implemented. The TSP standard must still be addressed however, and an approvable TSP SIP must still be forthcoming. EPA has called on LRAPA to report on SIP strategy implementation (see "Eugene-Springfield AQMA SIP Phase II Workplan Summary Status

ENVIRONMENTAL QUALITY  
CONTROL  
JUL 1986  
13

Report October 1, 1985" in Appendix) and to complete work on the remaining action plan in the SIP. This amendment is in response to that requirement and is designed to reflect the current situation. It replaces the existing Phase II with a new set of studies and reschedules the Phase III strategy development.

The Eugene-Springfield AQMA remains in non-attainment of the existing 24-hour secondary standard for TSP (see LRAPA 1984 Annual Report in Appendix.) Recent analyses of emissions have shown a dramatic shift in emission sources within the AQMA (see Eugene-Springfield AQMA 1984 RFP Report in Appendix.) This data indicates that since the 1978 base year used to develop the 1980 SIP revision, overall particulate emissions have been reduced by over 20%. However, although industrial emissions have been reduced by over 40% and fugitive dust emissions were lowered by about 25%, due in large part to implementation of Phase I strategies, residential wood heating emissions have almost doubled. As a result, industrial emissions now represent about 40% of the total annual emissions and residential woodheating about 30%, with most of the remainder being fugitive dust emissions. There is now a strong need for reevaluation studies of several source categories to establish relative ambient impacts. In addition, the continuing emphasis on  $PM_{10}$  by the EPA and the prospect of a revised particulate standard being promulgated have created the need for extensive emission and ambient data base development. This preliminary work will facilitate the development of a  $PM_{10}$  SIP within the mandatory nine month time frame subsequent to promulgation.

These activities are identified in the new workplan. This amendment makes obsolete Sections 4.6.4.3.2 and 4.6.4.3.3 of the 1980 SIP Revision which deal with the Phase II and Phase III workplans.

In addition to adjusting the workplan, it is necessary to adjust the SIP Implementation Schedule. Since the completion of the workplan will depend upon the availability of funding and the timing of the promulgation of the revised particulate standards, the schedule is, of necessity, somewhat flexible. This amendment makes obsolete Section 4.6.4.3.4 of the 1980 SIP Revision which deals with the SIP Implementation Schedule.

#### 4.6.12.2 Workplan

With the changing particulate emission rates among several source categories since the 1980 SIP Revision and with the proposed standard revision, there is a demonstrated need for data base improvements prior to the development of additional control strategies. Although this is a TSP SIP, it is recognized that the revised particulate standards will most probably contain a particle size indicator. Also, because a new PM<sub>10</sub> SIP must be developed in a short time period (nine months), it is important to improve the PM<sub>10</sub> data base to the extent possible prior to promulgation. Much of this effort will be performed in conjunction with the TSP data base improvement, providing an economy of effort.

##### 4.6.12.2.1 Data Base Improvement Projects

Each of the projects outlined in this section will be performed if adequate resources are made available.

Where possible, existing studies and data will be used to complete these projects.

1. Home Wood Heating TSP Emissions

- a) Study alternative control strategies for woodstoves, including the feasibility of applying retrofit devices on existing stoves.
- b) Evaluate the potential effect of the State of Oregon Woodstove Certification Program on emissions.
- c) Perform a home heating survey to update the database.
- d) Evaluate the impact of fuel moisture on emissions from home wood heating.

2. Run the grid model with an updated TSP data base and perform future year projections.

3. Evaluate the impact of forest slash burning and agricultural practices, such as tilling, harvesting and field burning, on TSP concentrations in the AQMA.

4. Provide for TSP EI improvement and PM<sub>10</sub> EI development from the following source categories:

- a) major point sources
- b) paved road dust
- c) construction dust
- d) residential open burning

4.6.12.2.2 Control Strategy Development

By January 1988, a citizen's group, such as the LRAPA Advisory Committee, will begin work on developing a

set of control strategies to bring this AQMA into attainment of the secondary TSP standards. This citizen's group will provide recommendations to the implementing entities which will then adopt the necessary regulating ordinances or agreements.

#### 4.6.12.3 Implementation Schedule

Figure 4.6.12.3-1 reflects the best available estimates of the time frame for completion of the data base improvement projects and control strategy development. The availability of funding and the promulgation of revised particulate standards could cause alterations to this schedule.

#### 4.6.12.4 Public Involvement/Public Notice

This TSP SIP Amendment has undergone the following public involvement/public notice process:

May 13, 1986	Advisory Committee recommendations presented to LRAPA Board of Directors - Public Hearing scheduled for July 8, 1986
June 4, 1986	Public notice of hearing published in the following newspapers--Eugene Register Guard, Springfield News, Cottage Grove Sentinel
May 22, 1986	State A-95 review process begun
July 6, 1986	State A-95 review process completed
July 8, 1986	Public hearing conducted before LRAPA Board of Directors

July 8, 1986

FIGURE 4.6.12.3--1  
IMPLEMENTATION SCHEDULE

<u>Date</u>	<u>Task</u>
7/86	Begin Data Base Development Projects
12/87	Complete Data Base Development Projects
1/88	Begin Control Strategy Development
9/88	Complete Control Strategy Development
12/88	Adopt Rules
12/92	Achieve Attainment of TSP Secondary Standards

Agenda Item No. 7

LRAPA Board of Directors Meeting

April 13, 1986

TO: Board of Directors

FROM: Donald R. Arkell

SUBJ: Staff Report on Proposed Amendments to Title 14, "Definitions," and Title 38, "New Source Review," to conform With Recent Changes in Federal EPA Regulations Regarding Stack Heights and Dispersion Techniques

Introduction

In some parts of the country, extremely tall stacks have been constructed to elevate emissions and thereby reduce ground-level concentrations near the plant site. However, these elevated emissions--in particular those from fossil fuel-fired power plants--have been shown to be contributors to the acid rain problem prevalent in the eastern portion of the country. As a result, in order to curb this practice, the Clean Air Act of 1977 forbids the use of excessive stack heights when computing whether ambient air quality standards will be violated. It does not forbid the construction of tall stacks.

The federal EPA subsequently adopted appropriate rules, as did the Oregon State Dept. of Environmental Quality and LRAPA. However, as a result of recent court action, the EPA revised their stack height rules on July 8, 1985 and is requiring the states to revise their comparable rules. The DEQ is currently undergoing this process, and staff is proposing that LRAPA also make these changes at this time.

Discussion

This rule currently affects no sources in Lane County, and it is not expected to be frequently used in the future. By adopting the rules, LRAPA will maintain jurisdiction over new sources with tall stacks. It is important

to note that this rule does not forbid the use of tall stacks--it merely forbids their use as a dispersion technique to demonstrate lower ambient impacts. The most efficient way of making the changes, without adding extensive inapplicable details to LRAPA's rules, is to delete the current rules and adopt the new federal rules by reference.

The changes in the federal rules can be summarized as follows:

1. An exemption is added for sources emitting less than 5000 tons/year of sulfur oxides (SO<sub>x</sub>).
2. Does not allow excess height to be credited as a way of reducing pollutant impacts caused by elevated terrain, unless that terrain begins within one-half mile of the stack.
3. Does not allow the consideration of other factors affecting plume rise, such as process manipulation or the combining of plumes in the modeling process.
4. Adds an exemption for using dispersion techniques to control residential woodburning impacts. This would allow the restriction of home woodheating during air pollution episodes.

#### Proposed Rule Changes

The proposed changes include deletion of the current stack height rules, which include sections 14-001.0180, 14-001.0260, 38-005-5 and 38-005-10. The new federal rules are included by reference in the proposed new section 38-050.

In addition, the EPA has commented that the definition of "major modification" (section 38-005-7) needs some minor changes in wording to make it consistent with the federal definition. They also noted two errata which need to be included: the definition of "actual emissions" was inadvertently left

Staff Report, Proposed Amendments  
Title 14 and Title 38  
May 13, 1986

3

out of Title 38; and the definition of "significant emission rate" (section 38-005-12) included a table which was cut off at the bottom of the page, and the remainder was not included on the following page. All of these changes are included in this proposed rule amendment.

Director's Recommendation

It is recommended that the Board adopt the new federal stack height rule by reference in section 38-050; delete sections 38-005-5, 38-005-10, 14-001.0180, and 14-001.0260; and adopt the change in 38-005-7, and the errata in sections 38-005-1 and 38-005-11.

REJ/mjd

PROPOSED DELETIONS

LRAPA TITLE 14

"Definitions"

~~[-.0180 "Dispersion Technique" means any technique which attempts to affect the concentration of a pollutant in the ambient air by any of the following:~~

- ~~A. Using that portion of a stack which exceeds good engineering practice stack height;~~
- ~~B. Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant;~~
- ~~C. Adding a fan or reheater to obtain a less stringent emission limitation.~~

~~This definition does not include the following:~~

- ~~D. The reheating of a gas stream following use of a pollution control system for the purpose of returning the gas to the temperature at which it was originally discharged from the facility generating the gas stream;~~
- ~~E. The use of smoke management in agricultural or silvicultural programs;~~
- ~~F. Combining the exhaust gases from several stacks into one stack.]~~

~~[-.0260 "Good Engineering Practice Stack Height" means the greater of:~~

~~A. Sixty Five (65) meters;~~

~~B.  $H_g = H + 1.5 L$  where:~~

- ~~(1)  $H_g$  = good engineering practice stack height (in meters) measured from the ground level elevation at the base of the stack;~~
- ~~(2)  $H$  = height of nearby structure or structures (in meters) measured from ground level elevation at the base of the stack;~~
- ~~(3)  $L$  = lesser dimension (height or width) of the nearby structure or structures (in meters).~~

~~C. The height (in meters) demonstrated by a fluid model or a field study approved by the Authority which ensures that the emissions from a stack do not result in excessive concentrations of any air pollutants as a result of atmospheric downwash, wakes, or eddy effects created by the source itself, structures, or terrain obstacles.]~~

PROPOSED AMENDMENTS AND ERRATA

LRAPA TITLE 38

"New Source Review"

Section 38-005 Definitions

The following definitions are relevant to this title. Additional general definitions can be found in Title 14.

1. "Actual Emissions" means the mass rate of emissions of a pollutant from an emission source.
  - A. In general, actual emissions as of the baseline period shall equal the average rate at which the source actually emitted the pollutant during the baseline period and which is representative of normal source operation. Actual emissions shall be calculated using the source's actual operating hours, production rates and types of materials processed, stored, or combusted during the selected time period.
  - B. The Authority may presume that existing source-specific permitted mass emissions for the source are equivalent to the actual emissions of the source, if they are within ten percent (10%) of the calculated actual emissions.
  - C. For any newly-permitted emission source which had not yet begun normal operation in the baseline period, actual emissions shall equal the potential to emit of the source.
2. "Air Contaminant Source" means, for the purposes of this title, any building, structure, or facility, or combination thereof, which emits or is capable of emitting air contaminants to the atmosphere. This definition does not include fuel-burning equipment used to heat one- or two-family dwellings or internal combustion engines used in motor vehicles, aircraft, and marine vessels.
3. "Baseline concentration" means that ambient concentration level for a particular regulated pollutant which existed in an area during the calendar year 1978. If no ambient air quality data is available in an area, the baseline concentration for any pollutant may be estimated using modeling based on actual emissions for the calendar year 1978. The following emissions increases or decreases will be included in the baseline concentration.
  - A. Actual emission increases or decreases occurring before January 1, 1978, and
  - B. Actual emission increases from any major source or major modification on which construction commenced before January 6, 1975.
4. "Baseline Period" means either calendar years 1977 or 1978. The Authority shall allow the use of a prior time period upon a determination that it is more representative of normal source operation.

5. "Best Available Control Technology (BACT)" means an emission limitation (including a visible emission standard) based on the maximum degree of reduction of each air contaminant subject to regulation under the Clean Air Act which would be emitted from any proposed major source or major modification which, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such air contaminant. In no event shall the application of BACT result in emissions of any air contaminant which would exceed the emissions allowed by any applicable new source performance standard or any standard for hazardous air pollutants. If an emission limitation is not feasible, a design, equipment, work practice, or operational standard, or combination thereof, may be required. Such standard shall, to the degree possible, set forth the emission reduction achievable and shall provide for compliance by prescribing appropriate permit conditions.

~~5. "Excessive Concentrations" for the purpose of determining good engineering practice stack height in a fluid model or field study means a maximum concentration due to downwash, wakes, or eddy effects produced by structures or terrain features which is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wake, or eddy effects.~~

6. "Lowest Achievable Emission Rate (LAER)" means that rate of emissions which reflects:
- A. The most stringent emission limitation which is contained in the implementation plan of any state for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or
  - B. The most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent.

In no event shall the application of this term permit a proposed new or modified source to emit any air contaminant in excess of the amount allowable under applicable new source performance standards or standards for hazardous air pollutants.

7. "Major Modification" means any physical change or change of operation of a source that would result in a net significant emission rate increase (as defined in this section) for any pollutant subject to regulation under the Clean Air Act. This criteria also applies to any pollutants not previously emitted by the source. Calculations of net emission increases must take into account all accumulated increases and decreases in actual emissions occurring at the source since January 1, 1978, or since the time of the last major source or major modification ~~construction~~ approval issued for the source pursuant to the rules for that pollutant, whichever time is more recent. If accumulation of emission increases results in a net significant

emission rate increase, the modifications causing such increases become subject to the major modification requirements of this title, including the retrofit of required controls. For the purposes of this title, fugitive emissions shall be included in the calculation of emission rates of all air contaminants. Fugitive emissions are subject to the same control requirements and analyses required for emissions from identifiable stacks or vents. Secondary emissions shall not be included in calculations of potential emissions which are made to determine if a proposed source or modification is major. Once a source or modification is identified as being major, secondary emissions must be added to the primary emissions and become subject to these rules.

8. "Major Source" means a stationary source which emits, or has the potential to emit, any pollutant regulated under the Clean Air Act at a Significant Emission Rate (as defined in this section). For the purposes of this title, fugitive emissions shall be included in the calculation of emission rates of all air contaminants. Fugitive emissions are subject to the same control requirements and analyses required for emissions from identifiable stacks or vents. Secondary emissions shall not be included in calculations of potential emissions which are made to determine if a proposed source or modification is major. Once a source or modification is identified as being major, secondary emissions must be added to the primary emissions and become subject to these rules.
9. "Modification of an Air Contaminant Source" means any physical change or change in operation of a source which would result in a non-permitted increase in the air contaminant emissions from that source.
- ~~10. "Nearby Structures" means those structures that are within a distance of five (5) times the lesser of the height or width dimension of the structure but not greater than 0.8 Km (one half mile). The height of the structure is measured from the ground level elevation at the base of the stack.]~~
10. "Significant Air Quality Impact" means an ambient air quality impact which is equal to or greater than:

Pollutant	Annual	Pollutant Averaging Time			
		24-hour	8-hour	3-hour	1-hour
SO <sub>2</sub>	1.0 ug/m <sup>3</sup>	5 ug/m <sup>3</sup>		25 ug/m <sup>3</sup>	
TSP	0.2 ug/m <sup>3</sup>	1.0 ug/m <sup>3</sup>			
NO <sub>2</sub>	1.0 ug/m <sup>3</sup>				
CO			0.5 mg/m <sup>3</sup>		2 mg/m <sup>3</sup>

For sources of volatile organic compounds (VOC), a major source or major modification will be deemed to have a significant impact if it is located within thirty (30) kilometers of an ozone nonattainment area and is capable of impacting the nonattainment area.

11. "Significant Emission Rate" means emission rates equal to or greater than the following for air pollutants regulated under the Clean Air Act:

<u>Pollutant</u>	<u>Significant Emission Rate</u>	
Carbon Monoxide	100	tons/year
Nitrogen Oxides	40	tons/year
Particulate Matter	25	tons/year
Sulfur Dioxide	40	tons/year
Volatile Organic Compounds	40	tons/year
Lead	0.6	ton/year
Mercury	0.1	ton/year
Beryllium	0.0004	ton/year
Asbestos	0.007	ton/year
Vinyl Chloride	1	ton/year
<u>Flourides</u>	<u>3</u>	<u>tons/year</u>
<u>Sulfuric Acid Mist</u>	<u>7</u>	<u>tons/year</u>
<u>Hydrogen Sulfide</u>	<u>10</u>	<u>tons/year</u>
<u>Total Reduced Sulfur</u> <u>(Including hydrogen sulfide)</u>	<u>10</u>	<u>tons/year</u>
<u>Reduced Surfur Compounds</u> <u>:(Including hydrogen sulfide)</u>	<u>10</u>	<u>tons/year</u>

*Fluorides !*

For pollutants not listed above, the Authority shall determine the rate that constitutes a significant emission rate.

Any emissions increase less than these rates associated with a new source or modification which would construct within ten (10) kilometers of a Class I area, and would have an impact on such area equal to or greater than 1 ug/m<sup>3</sup> (24-hour average) shall be deemed to be emitting at a significant emission rate.

Section 38-050 Stack Height and Dispersion Techniques

1. Title 40, Code of Federal Regulation, Parts 51.1(ff) through (kk), 51.12(j) and (k), and 51.18(1), as amended on July 8, 1985 in the Federal Register (50 FR 27892), is by this reference adopted and incorporated herein, concerning stack heights and dispersion techniques.
2. In general, the rule prohibits the use of excessive stack height and certain dispersion techniques when calculating compliance with ambient air quality standards. The rule does not forbid the construction and actual use of excessively tall stacks, nor use of dispersion techniques; it only forbids their use in compliance calculations.
3. The rule has the following general applicability. With respect to the use of excessive stack height, stacks 65 meters high or higher, constructed after December 31, 1970, and major modifications to existing plants after December 31, 1970 with stacks 65 meters high or higher which were constructed before that date, are subject to this rule, with the exception that certain stacks at federally-owned, coal-fired steam electric generating units constructed under a contract awarded before February 8, 1974, are exempt. With respect to the use of dispersion techniques, any technique implemented after December 31, 1970, at any plant, is subject to this rule. However, if the plant's total allowable emissions of sulfur dioxide are less than 5,000 tons per year, then certain dispersion techniques to increase final exhaust gas plume rise are permitted to be used when calculating compliance with ambient air quality standards for sulfur dioxide.
  - A. Where found in the federal rule, the term "reviewing agency" means the Lane Regional Air Pollution Authority (LRAPA), the Oregon Department of Environmental Quality (DEQ), or the U. S. Environmental Protection Agency (EPA), as applicable.
  - B. Where found in the federal rule, the term "authority administering the State Implementation Plan" means LRAPA, DEQ or EPA.
  - C. The "procedures" referred to in 40 CFR 51.18(1) are the New Source Review procedures at LRAPA (Title 38), and the review procedures for new, or modifications to, minor sources at LRAPA (Title 34 and rule 38-045).
  - D. Where "the State" or "State, or local control agency" is referred to in 40 CFR 51.12(j), it means DEQ or LRAPA.
  - E. Where 40 CFR 51.1(kk) refers to the Prevention of Significant Deterioration program and cites 40 CFR 51.24, it means the EPA-approved new source review rules of LRAPA (see 40 CFR 52.1987), where they cover Prevention of Significant Deterioration.

4. Where found in the federal rule, the terms "applicable state implementation plan" and "plan" refer to the programs and rules of LRAPA, as approved by the Oregon Environmental Quality Commission (EQC) or EPA, or any EPA-promulgated regulations (see 40 CFR Part 52, Subpart MM).
5. Publications incorporated by reference in this rule are available from the office of the Lane Regional Air Pollution Authority.

248

ANNEX O

STATE OF OREGON  
EMERGENCY OPERATIONS PLAN

HAZARDOUS MATERIAL EMERGENCY RESPONSE PLAN

JANUARY 1984

61  
23

Printing funded by Department of Environmental Quality (DEQ)  
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## CONTENTS

I.	MISSION . . . . .	1
II.	DEFINITIONS . . . . .	1
III.	SITUATION . . . . .	3
IV.	CONCEPT OF OPERATIONS . . . . .	3
	A. Local Government . . . . .	4
	B. State Government . . . . .	4
	C. Federal Government . . . . .	5
V.	EXECUTION . . . . .	6
	A. Notifiers . . . . .	6
	B. Communicators . . . . .	6
	C. Incident Commanders or On-Scene Coordinators . . . . .	6
	D. Restorers . . . . .	6
	E. Additional Technical Support . . . . .	8
VI.	INDUSTRIAL COORDINATION . . . . .	8
	A. Information Service . . . . .	8
	B. Response Services . . . . .	9
VII.	AGENCY RESPONSIBILITIES AND CAPABILITIES . . . . .	11
	A. Oregon State Police . . . . .	11
	B. Emergency Management Division . . . . .	12
	C. Department of Environmental Quality . . . . .	14
	D. Health Division . . . . .	17
	E. Oregon State Highway Division . . . . .	18
	F. Oregon State Parks and Recreation Division . . . . .	20
	G. Department of Forestry . . . . .	22
	H. Accident Prevention Division . . . . .	25
	I. Department of Fish & Wildlife . . . . .	28
	J. Public Utility Commissioner (Motor Carrier and Rail-Air Programs) . . . . .	29
	K. Department of Agriculture . . . . .	31
	L. Office of State Fire Marshal . . . . .	32
	M. Military Department . . . . .	34
	N. Oregon State University . . . . .	36
	O. Oregon Department of Justice . . . . .	38
	P. Oregon Traffic Safety Commission . . . . .	40

## FIGURE

1.	RESPONSE TO SPILLS . . . . .	7
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## I. MISSION

The mission of the Hazardous Material Emergency Response Plan is to provide coordinated emergency response for incidents involving oil and hazardous materials, except that transportation incidents involving radioactive materials are handled by Annex P, Radioactive Material (Transportation) Emergency Response Plan.

## II. DEFINITIONS

Coastal Zone means all U.S. tidal waters, Great Lakes, ports and harbors on inland rivers, other waters of the high seas, and land, groundwater, and air near the designated waters. The U.S. Coast Guard responds to hazardous material incidents occurring in the coastal zone.

Emergency Operations Plan (EOP) means the state's written plan for responding to natural, oil, hazardous material and conventional or nuclear war incidents. The EOP was developed pursuant to the Civil Defense Act of 1949. For more information on the EOP, contact the Emergency Management Division.

Federal On-Scene Coordinator (FOSC) means a federal employee who is responsible for on-scene coordination of the federal response to an oil or hazardous material incident. The FOSC will normally be a member of the U.S. Coast Guard or Environmental Protection Agency.

Hazardous Material (HazMat) means a flammable, corrosive, reactive or toxic chemical; infectious biological (etiologial) agent or radioactive material. A hazardous material can be either a material intended for use or a waste intended to be treated or disposed of.

Hazardous Material Emergency Response Plan (HazMat Plan) means Annex O of the Emergency Operations Plan. The HazMat Plan was developed pursuant to Executive Order No. EO-80-6. For more information on the HazMat Plan, contact the Emergency Management Division. Also refer to Annex L, Trojan Emergency Response Plan, and Annex P, Radioactive Material (Transportation) Emergency Response Plan.

Incident means any accidental or intentional spill or release resulting from preparing, manufacturing, processing, packaging, warehousing, transporting, handling, using, applying, storing, treating or disposing of oil or hazardous materials.

Incident Commander (IC) is a term used by local government to describe the city or county employee who is responsible for on-scene coordination of the local response to an incident. The IC will normally be a local police officer, fire official or an employee of a local emergency management operations program. In the absence of local response, the state police would be the IC. Also refer to On-Scene Coordinator.

Inland means the environment inland of the coastal zone excluding the Great Lakes and specified ports and harbors of inland rivers. The Environmental Protection Agency responds to hazardous material incidents occurring inland.

Level One Emergency means an incident that may not require a local field response and that does not require a state or federal field response. Instead of a field response, enough information is given to the caller so that the emergency can be resolved (e.g., a person accidentally spills a small amount of pentachlorophenol on his body or on the ground and wants to know how the material should be cleaned up).

Level Two Emergency means an incident that requires a local field response and may require a state or federal response in support of the local response (e.g., a bag of dry pesticide falls off a truck and needs to be picked up to avoid further spread of contamination, or an accident causes 5 or 10 gallons of gasoline or diesel oil to be spilled).

Level Three Emergency means an incident that requires local and state response and may require federal response (e.g., major fire involving release of toxic vapors or contaminated runoff, train derailment, major truck accident, pesticide spill directly into public waters, etc.).

Level Four Emergency means an incident that is beyond local capability and requires the Governor to declare an emergency so all state resources are activated. A Level Four Emergency will also result in a federal field response (e.g., a hazardous material spill that contaminates a city's drinking water supply).

Local On-Scene Coordinator -- see Incident Commander.

Oil means gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil refuse and any other petroleum-related product.

On-Scene Coordinator means the field person from local, state or federal government in charge of coordinating people and equipment during an emergency response to an incident. Response progresses from local to state to federal government, depending on the severity of the incident, the expertise of the responders and competing demands on available resources, and may change as the incident progresses from containment to restoration. Also refer to Incident Commander.

Public Information Officer (PIO) means a person designated by the on-scene coordinator to distribute information about the incident to the public and to other local, state and federal agencies. For Level Two Emergencies, the state on-scene coordinator may be the PIO or may designate a local, state or federal employee as the PIO. For Level Three Emergencies, a field PIO will be dispatched at the request of the state on-scene coordinator and will generally be a Department of Environmental Quality or Health Division employee. For Level Four Emergencies, a PIO will be designated pursuant to the state Emergency Operations Plan.

Radioactive Material (Transportation) Emergency Response Plan means Annex P of the Emergency Operations Plan, which covers incidents occurring during transportation of radioactive material. For more information on this plan, contact the Department of Energy or the Emergency Management Division. Also refer to Annex L, Trojan Emergency Response Plan.

State On-Scene Coordinator (SOSC) means a member of the Department of Environmental Quality (for oil and hazardous material incidents) or the Health Division (for infectious, biological agent or radioactive material incidents), who is responsible for on-scene coordination of the state's response to an incident after the area is secured by the incident commander.

State Resources Coordinator (SRC) means a person designated by Emergency Management Division who is responsible for arranging other state resources in support of the on-scene coordinator. During a Level Three or Four Emergency, a field SRC will be dispatched at the request of the on-scene coordinator.

Trojan Emergency Response Plan (TERP) means Annex L of the Emergency Operations Plan which covers radioactive emergencies at the Trojan Nuclear Plant near Rainier, Oregon. For more information on TERP, contact the Oregon Department of Energy or the state Emergency Management Division. Also refer to Annex P, Radioactive Material (Transportation) Emergency Response Plan.

### III. SITUATION

Oil or hazardous material incidents may present a variety of dangers, such as fires, explosions, or release of toxic gases, poisons, radiation, corrosive materials, infectious biological agents or oil.

Typical incidents, whether intentional or accidental, include natural occurrences (e.g., lightning, earthquake, high wind, flood), spills, leaks, dumping, structural failures, corroding barrels, mechanical failures, operator error or collisions.

Sources for hazardous material incidents can be stationary or mobile. Typical stationary sources are manufacturing and industrial plants, warehouses or bulk storage terminals, and private or governmental facilities (e.g., schools, hospitals, research laboratories, swimming pools, and water and wastewater treatment plants). Typical mobile sources include trucks, ships, trains and planes.

### IV. CONCEPT OF OPERATIONS

Local, state and federal agencies must be prepared to respond to oil and hazardous material incidents. Usually, local government officials respond first because of proximity to the incident. When local response occurs, the state's response is in support of local government unless (a) local government requests the state to assume on-scene responsibility for the emergency or (b) the state determines that an inadequate local response is occurring and assumes on-scene responsibility. In the absence of any local response, the state will respond.

Federal response is usually in support of local and state response unless (a) the emergency is beyond state resources and federal assistance is requested or (b) the federal government has determined that an inadequate state response is occurring and assumes on-scene responsibility.

A. Local Government (City and County)

1. Direction and Control

Local agencies are generally the first responders to incidents involving oil and hazardous materials. Responsible for controlling the scene, local government may take action to contain the emergency (e.g., extinguish the fire, stop the run-off of oil or hazardous materials) and may ensure restoration of the site.

2. Emergency Operations Plans

Many local governments have developed or are developing plans for responding to oil and hazardous material incidents. Besides taking maximum advantage of local capability, the plans recognize possible state and federal assistance.

3. Emergency Operations Center

Local governments designate a permanent location to serve as a central area for communication during an incident. The local emergency operations center has communication equipment capable of making verbal or written contact with local, state and federal agencies. Furthermore, adequate space should be available for local, state and federal agencies to use during Level Three or Four Emergency. A typical emergency operations center may be a police or sheriff's office, fire department, or other emergency operations office.

4. Mobile Operation Center

Emergencies may also require creating a mobile operations center near the incident. A typical mobile operations center may be a nearby home, business, phone booth, police car, or specially equipped emergency van. The mobile unit provides a central location for field responders to discuss strategy and other related issues.

B. State Government

1. Direction and Control

State agencies respond to incidents in the absence of local response or when assistance is needed by local government. In all cases, the hazardous material emergency phone number (1-800-452-0311) is called to arrange state response. Once notified, the state's Emergency Management Division makes the necessary calls to coordinate state agency response. If federal assistance is also needed, the national response center should be called. The U.S. Coast Guard contacts the appropriate federal agencies and coordinates the federal response.

## 2. Emergency Operations Plan

The state published the Emergency Operations Plan in 1980 to respond to natural and man-caused emergencies. For oil and hazardous material incidents, state agencies follow Annex O, the Hazardous Materials Emergency Response Plan. For radioactive material transportation incidents, state agencies follow Annex P of the plan, called the Radioactive Material (Transportation) Emergency Response Plan.

## 3. Emergency Operations Center

The Emergency Management Division provides a permanent communications center in Salem for dealing with emergencies. The state emergency operations center is capable of establishing verbal and written contact with local and federal agencies during an emergency by telephone, two-way radio, telex, etc.

## 4. Mobile Operations Center

State officials on the scene of an incident may use a local emergency operations center, a local mobile emergency operations center or, if necessary, set up their own mobile operations center. A typical mobile operations center may be a nearby home, business, phone booth, police car, emergency response van, etc.

## C. Federal Government

### 1. Direction and Control

Federal agencies respond to incidents in the absence of state response or when assistance is needed by local or state government. The U.S. Coast Guard or U.S. Environmental Protection Agency (EPA) responds to incidents that occur in the coastal zone or inland, respectively.

### 2. Emergency Operations Plan

The EPA adopted the federal plan called the National Oil and Hazardous Substances Contingency Plan in 1982, pursuant to the Comprehensive Environmental Response Compensation and Liability Act and the Clean Water Act. The plan organizes the resources of 16 agencies, including the Federal Emergency Management Agency. Federal regional plans will be developed and, where practical, federal local plans will be developed. Plans can be inspected at Environmental Protection Agency regional offices or at U.S. Coast Guard district offices.

### 3. Emergency Operations Center

The National Oil and Hazardous Substances Contingency Plan identifies a National Response Center in Washington, D.C., and a regional response center in the standard federal regions. The federal emergency operations center is capable of establishing verbal and written communication with local and state agencies during an emergency by telephone, two-way radio, telex, etc.

#### 4. Mobile Operation Center

Federal officials on the scene of an incident may use a local emergency operations center, a mobile emergency operations center established by local government or, if necessary, set up their own mobile operations center. Typical centers may be a nearby home, business, phone booth, police car, emergency response van, etc.

### V. EXECUTION

Since oil and hazardous material incidents can occur at any time, emergency plans describe the tasks from initial notification through recovery and restoration of the site. Figure 1 is a graphical depiction of the coordination required by local, state and federal agencies involved in an oil or hazardous material response.

#### A. Notifiers

The person who is involved in the incident or the public who witnessed or discovers an incident can call for local assistance through "911" or the local police or fire phone numbers, if available. State assistance is available through 1-800-452-0311. Federal assistance is available through 1-800-424-8802.

#### B. Communicators

On the local level, the police, fire officials or local emergency management services are responsible for local coordination and cooperation with state and federal assistance. The Emergency Management Division is responsible for state coordination and communication with local and federal agencies. The U.S. Coast Guard or EPA is responsible for federal coordination and communication with local and state agencies.

#### C. Incident Commanders or On-Scene Coordinators

The incident commander for local coordination is the police, fire officials or local emergency management services; the on-scene coordinator for state agencies is the Oregon State Police, Department of Environmental Quality for oil and hazardous material incidents, or Health Division for biological and radioactive incidents; and on-scene coordinator for federal agencies is the Coast Guard on coastal zones or Environmental Protection Agency on land.

#### D. Restorers

For most oil and hazardous material emergencies, the person(s) who caused the incident is responsible for restoration. Typically, the responsible person(s) will contract with a private cleanup company for the service. When local, state or federal land is affected, certain land management agencies may occasionally take emergency response or other action to control or contain the emergency.

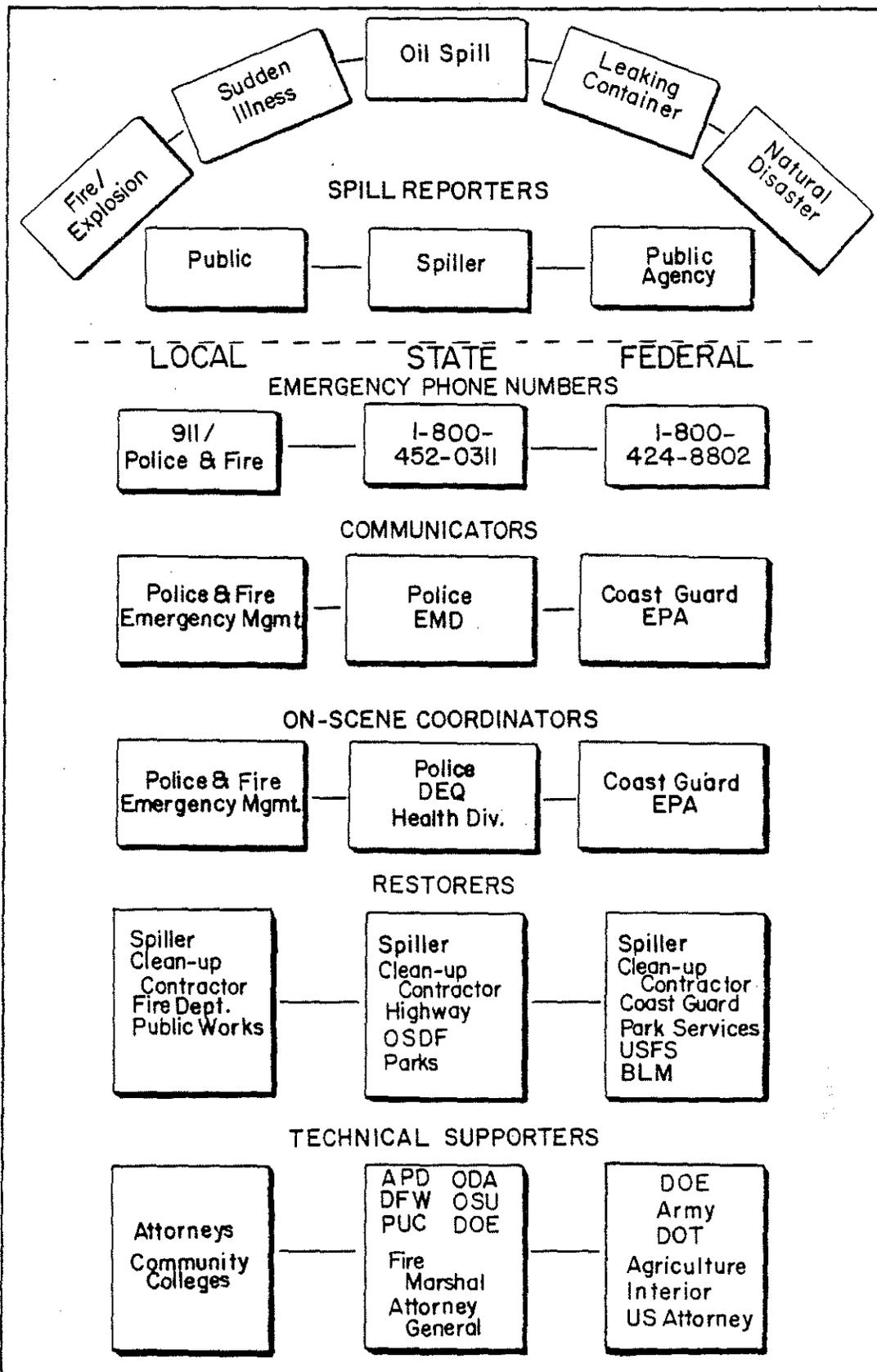


Figure 1. RESPONSE TO SPILLS. Oil and hazardous material incidents require the coordinated response of local, state and federal agencies. Because of proximity, local agencies are first responders. State and federal agencies respond to assist local government as necessary to ensure restoration of site.

6/18

For local governments, the restorers who may be involved in cleanup activities include the local police, fire and public works officials; for state government, certain land management agencies, such as Highway Division, Forestry or Parks Department; and for federal government, the Coast Guard, Forest Service or Bureau of Land Management.

Even when local, state or federal resources are used, final restoration reverts to the responsible party. In other cases, local, state or federal agencies may seek cost recovery from the responsible party for initial control and containment measures.

#### E. Additional Technical Support

Besides state agencies already mentioned, additional technical support is available from the following state agencies:

Accident Prevention Division, Department of Justice, Department of Agriculture, Department of Fish & Wildlife, Military Department, Oregon State University, Public Utility Commissioner, State Fire Marshal, and Traffic Safety Commission.

Besides the U.S. Coast Guard and EPA, technical support is available from the following federal agencies: Bureau of Land Management, Department of Commerce, Department of Defense, Department of Energy, Department of Health and Human Services, Department of Interior, Department of Justice, Department of Labor, Department of State, Department of Transportation, Federal Emergency Management Agency, Forest Service, National Institute for Occupational Safety and Health, National Oceanic and Atmospheric Administration, Occupational Safety and Health Administration, U.S. Army, and U.S. Attorney.

## VI. INDUSTRIAL COORDINATION

The key to minimizing public health or environmental threats from an emergency is timely response, including early containment and collection. Recognizing this, a number of industries have formed associations to provide information or cleanup assistance. To the degree that state agencies are aware of and use these industrial services, spill impacts may be minimized.

In addition to the general industry association contacts, each state agency may have developed a specific list in their contingency plans of companies, contractors or consultants that specialize in a certain area of emergency response. Contingency plans are available from individual agencies.

#### A. Information Service

CHEMTREC is a public service of the Manufacturing Chemists Association, which provides immediate advice for those at the scene of an emergency. In addition, CHEMTREC can contact shippers and manufacturers who may provide more detailed assistance and field response. CHEMTREC can be contacted on a 24-hour basis as follows:

1-800-424-9300 (EMERGENCIES ONLY)

CHEMTREC (Chemical Transportation Emergency Center)  
Manufacturing Chemists Association (MCA)  
1825 Connecticut Avenue, NW  
Washington, D.C. 20009  
(202) 483-6126 (general information)

B. Response Services

1. Chlorine

Because of the acute hazard associated with a chlorine spill, the chlorine manufacturers, through Chlorine Institute, can provide information and field response capability during a chlorine emergency. For communication simplicity, the Chlorine Institute has chosen to be contacted through CHEMTREC on a 24-hour basis as follows:

1-800-424-9300 (EMERGENCIES ONLY)

The Chlorine Institute, Inc.  
342 Madison Avenue  
New York, NY 10017  
(212) 682-4324 (general information)

2. Pesticides

Because of the variety of chronic and acute hazards with pesticide products, the pesticide manufacturers, through the National Agricultural Chemical Association (NACA), can provide information and field response capability during an emergency involving pesticides. For communication simplicity, the NACA's Pesticide Safety Teams have chosen to be contacted through CHEMTREC on a 24-hour basis as follows:

1-800-424-9300 (EMERGENCIES ONLY)

National Agricultural Chemicals Association  
1155 15th St. NW, Suite 514  
Washington, D.C. 20005  
(202) 296-1585 (general information)

3. Petroleum Products

Clean Rivers Cooperative is a nonprofit, unincorporated organization dedicated to oil spill control and cleanup on the Columbia and Willamette Rivers within 80 miles of Portland and anywhere on the Oregon Coast. Clean Rivers has contracted with Environmental Emergency Services to operate and maintain the Cooperative's response equipment. Environmental Emergency Services can be contacted on a 24-hour basis as follows:

1-800-452-0769 (EMERGENCIES ONLY)

Environmental Emergency Services  
Division of Riedel International  
Foot of N. Portsmouth  
Portland, OR  
(503) 285-9111 (general information)

or

Clean Rivers Cooperative  
2416 N. Marine Drive  
Portland, OR 97217  
(503) 285-1025 (general information)

4. Railroads

Because of the large volume of hazardous materials in a single railcar, and the variety of hazardous materials being moved at the same time, a train accident presents unusual hazards to response personnel. To provide expanded information and response capability, the Association of American Railroads' Bureau of Explosives can be contacted on a 24-hour basis as follows:

1-800-424-9300 (CHEMTREC) or (202) 835-9500 (Bureau of Explosives)

Association of American Railroads  
Bureau of Explosives  
1920 L. Street NW  
Washington, D.C. 20036  
(202) 835-9100 (general information)

In addition, the three Class I railroads can be contacted in an emergency as follows:

Burlington Northern  
1101 NW Hoyt St.  
Portland, OR 97207  
(206) 696-5760 (EMERGENCIES ONLY)  
(503) 241-6221 (general information)

or

Southern Pacific  
251 Union St.  
Portland, OR 97209  
(503) 688-5348 (EMERGENCIES ONLY)  
(503) 228-8181 (general information)

or

Union Pacific  
2525 N. Larrabee Avenue  
Portland, OR 97208  
(503) 287-9188 (EMERGENCIES ONLY)  
(503) 249-2711 (general information)

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## VII. AGENCIES RESPONSIBILITIES AND CAPABILITIES

The following information describes the general response by 16 state agencies that could be involved in hazardous material emergencies. The agencies are listed in the probable order of response. For more detailed contingency plans, contact the individual agency. The phone numbers are for use during regular working hours to obtain general information. For emergency response to a spill or other emergency, call the 24-hour response line at 1-800-452-0311.

### A. Oregon State Police

#### 1. Administrative Response Authority

The mission of the Oregon State Police is to protect persons and their property and provide for the orderly flow of traffic at the scene of any hazardous material accident or incident. State Police will assume responsibility for control of the scene if first to arrive or will assist any other agency with scene control upon request.

Upon determination that a hazardous incident has occurred, State Police will ensure that the scene is secure and notify Emergency Management Division. Local emergency respondents will be dispatched as the need dictates.

Statutory provisions of the Department of State Police are contained in ORS 181.101 to 181.410. State Police provides sufficient manpower to control and protect the scene. If the incident is major, the procedures as established by the Department and explained in Chapter I, 6 H & J, pages 1-8 through 1-11, of the Administrative Handbook will be followed.

#### 2. Incidents

Oregon State Police will respond to any report of an accident or incident involving hazardous material or oil that might affect persons or property.

#### 3. Chain of Command and Response

Upon notification, State Police will view the incident scene. Once verification has been made that an incident has occurred, the State Police secure the scene public protection and notify the Emergency Management Division.

The Station Commander is responsible for any emergency in one patrol station's area that may be contained without State Police aid from the outside. Every assistance will be extended to city or county authorities when the operation is under local control.

The District Commander is responsible for any operation confined within district boundaries but of sufficient magnitude to require participation of personnel from more than one station.

The General Headquarters staff directs any operation that requires participation of personnel from more than one district; the combined force is commanded by the Superintendent or a designated staff member.

4. Response Offices

General Headquarters  
107 Public Service Building  
Salem, Oregon 97310  
378-3720

District III  
2700 N. Pacific Highway 97  
Medford, Oregon 97501  
776-6114

District I  
3700 SE 92nd Avenue  
Portland, Oregon 97266  
238-8440

District IV  
1050 Bridge Street  
Baker, Oregon 97814  
523-5848

District II  
2960 State Street  
Salem, Oregon 97310  
378-2110

District V  
63055 N. Highway  
Bend, Oregon 97701  
388-6303

5. State Police Contingency Plan

Oregon State Police emergency operation plans are on file at General Headquarters, District Headquarters and Patrol Stations. These public documents are available for review upon request.

B. Emergency Management Division

1. Statutory Authority

The Emergency Management Division (EMD) of the Executive Department operates under the authority of ORS Chapter 401, the Oregon Civil Defense Act of 1949.

2. Incidents

EMD will respond to any natural or manmade incident that causes (or threatens to cause) damage to property or people (ORS 401.030(2)).

3. Chain of Command

During regular office hours, emergency incident reports are called in to an EMD staff member who completes an incident/spill report, classifies the incident and coordinates the response. The Operations Officer reviews the completed incident/spill report for monitoring and/or followup. Depending upon the severity and magnitude of the incident, the Operations Officer briefs the Administrator on the incident, actions taken, and current status of the operation. After evaluating the situation and the potential for developing into a major emergency, the Administrator activates the EMD Emergency Operations Center and notifies the Governor's Office and the appropriate state and/or federal agencies.

On weekends, holidays and after normal duty hours, the Oregon State Police Communications Division answers EMD telephones. The State Police obtains preliminary information from the reporting party and relays the information to a designated EMD Staff Duty Officer, who contacts the reporting party and obtains complete incident information. Depending on the type, severity, and magnitude of the reported incident, the Staff Duty Officer notifies an EMD Agency Representative of the emergency and recommends further actions. The Staff Duty Officer carries out all required emergency notifications, and the Agency Representative performs the same duties after hours as the Administrator performs during regular hours.

#### 4. Resources

EMD provides technical assistance to other agencies through the Operations Officer, Communications Officer, and Search and Rescue Coordinator.

EMD also provides communications systems:

- o National Warning System (NAWAS)
- o Emergency Broadcast System (EBS)
- o Law Enforcement Data System (LEDS) Teletype
- o Oregon State Highway Division Teletype
- o Emergency Operations Center Radio Communication Systems.

#### 5. Response Offices

1-800-452-0311  
(24-hour, toll-free, incident reporting number)

Emergency Management Division  
Administrative Offices  
Room 43  
State Capitol Building  
Salem, OR 97310  
378-4124  
(24-hour local incident reporting number)

If major emergency, the call is forwarded to:

Emergency Operations Center  
Room 50  
State Capitol Building  
Salem, OR 97310

#### 6. EMD Contingency Plans

Plans listed below are available from the EMD Operations Officer and/or have been distributed to state agencies, local governments and federal agencies:

- o EMD Standard Operating Procedures
- o EOC Standard Operating Procedures
- o EMD Emergency Information Center (EIC) Standard Operating Procedures
- o Umatilla Depot Chemical Emergency Response Plan (UCERP)
- o Volcanic Emergency Response Plan
- o Emergency Operations Plan (EOP), Parts II and III.

C. Department of Environmental Quality

1. Statutory and Administrative Response Authority

The Oregon State Legislature declared that oil will not be discharged into waters or on land when there is a substantial likelihood that it will enter public waters. Also, no release of hazardous substances (including hazardous wastes) into surface water, groundwater, air or land will be allowed.

Oil Spills

The Department of Environmental Quality's (DEQ) emergency response authority for oil is contained in ORS 468.785, which requires the person owning or having control over the oil to immediately collect and remove the oil. The person is strictly liable for damages to persons or property. If a spill occurs, OAR Division 47 requires the spiller to (a) immediately notify OARS, (b) immediately stop spill, (c) immediately contain, (d) collect and remove oil, (e) immediately proceed to correct the cause of spill and (f) submit a report within seven days describing all aspects of the spill and steps taken to prevent a recurrence.

Failure to immediately clean up the spilled oil and restore the environment is subject to a \$10,000 civil penalty. Anyone intentionally spilling oil is subjected to a \$20,000 civil penalty. Each day that pollution of public waters continues is considered a separate offense.

Hazardous Substances Spills

The Department's emergency response authority for hazardous waste or hazardous substance spills is covered in ORS 459.685. Person(s) who have the care, custody or control of a hazardous waste or substance and who cause or permit disposal (including spills) are liable for damages to people and property. The responsible person(s) must collect, remove or treat the hazardous waste or substance immediately, under the direction of DEQ. If necessary, DEQ may contract to have the spill cleaned up and seek to recover its costs through court action.

During a major incident or spill, it may also be possible for DEQ to seek assistance from the Environmental Protection Agency, including financial assistance, to bring the emergency under control.

OAR Division 63 requires generators, transporters and management facilities to report to the emergency hotline, 1-800-452-0311, all accidents and other occurrences that may result in a discharge of hazardous waste to the environment. Failure to report or immediately clean up a spill is subject to a civil penalty of up to \$10,000 or a criminal penalty of \$10,000 and/or one year in jail. Each day of violation is considered a separate offense.

## 2. Incidents

Spilled materials that trigger DEQ's response include (a) oil, such as gasoline, crude oil, diesel oil; (b) hazardous wastes, such as flammables, acids, bases, reactives, oxidizers, pesticides, chlorinated hydrocarbons and phenols, polychlorinated biphenyls (PCBs), heavy metals and carcinogens; and (c) hazardous substances (i.e., a commodity intended for use rather than a waste intended for disposal), such as flammables, acids, bases, reactives, oxidizers, pesticides, chlorinated hydrocarbons and phenols, PCBs, heavy metals and carcinogens.

DEQ responds to spills that occur in state waters, including surface water and groundwater, air and land resources.

## 3. Chain of Command

During regular daytime office hours, all spills called in to the Emergency Management Division are forwarded to the DEQ Headquarters Office for initial evaluation. Oil spills are handled by the DEQ Regional Operations Section, while hazardous waste and substance spills are handled by the DEQ Hazardous Waste Section. Headquarters staff contacts the appropriate DEQ field office to determine strategy for initial response. Field staff provides on-scene response while headquarters arranges additional agency or interagency support based on the field requests.

After regular working hours and on weekends, the field staff is notified directly based on a 24-hour call list provided to the Emergency Management Division.

NOTE: Because of overlapping jurisdiction with the U.S. Coast Guard, DEQ does not usually respond in areas of U.S. Coast Guard jurisdiction (i.e., Columbia River to Bonneville, Willamette River to Oregon City, and Pacific Ocean shore), unless requested.

## 4. Response and Resources

DEQ's principal role is the state's consultant or advisor responsible for evaluating the public health or environmental implications of a spill. Advice may be provided to (a) local police, fire and public works agencies; (b) other state agencies such as the State Police, Department of Fish and Wildlife, Health Division and Department of Agriculture; (c) spiller or responsible party; (d) cleanup contractor, if one has been hired; (e) media who may wish to report on incident and (f) public who wish to know the apparent public health or environmental risks.

DEQ can collect and analyze water, soil, vegetation or tissue samples to assist in interpreting public health or environmental implications of spill. Emergency samples are given priority status.

However, DEQ staff are not currently trained or equipped to do hands-on cleanup.

#### 5. Response Offices

Headquarters Office and  
Regional Operations Office  
522 SW 5th Avenue  
PO Box 1760  
Portland, OR 97207  
229-5913/5372

Northwest Region Office  
522 SW 5th Avenue  
PO Box 1760  
Portland, OR 97207  
229-5209

Astoria Branch Office  
749 Commerce  
Astoria, OR 97103  
325-8660

Willamette Valley Region Office  
895 Summer St. NE  
Salem, OR 97310  
378-8240

Southwest Region Office  
201 W. Main St., Rm. 202  
Medford, OR 97501  
776-6010

Coos Bay Branch Office  
490 N. 2nd  
Coos Bay, OR 97420  
269-2721

Roseburg Branch Office  
1937 W. Harvard Blvd.  
Roseburg, OR 97470  
440-3338

Central Region Office  
2150 NE Studio Road  
Bend, OR 97701  
388-6146

Klamath Falls Branch Office  
403 Pine Street  
PO Box L  
Klamath Falls, OR 97601  
883-5606

Eastern Region Office  
700 SE Emigrant  
Suite 330  
Pendleton, OR 97801  
276-4063

Laboratory & Applied Research  
1712 SW 11th Avenue  
Portland, OR 97201  
229-5983

#### 6. DEQ Contingency Plan

Single copies of the "Contingency Plan for Spills of Oil and Hazardous Substances" can be obtained by writing Regional Operations, Oregon Department of Environmental Quality, PO Box 1760, Portland, Oregon, 97207, or calling 229-6232, 229-5913, or toll-free 1-800-452-4011.

D. Health Division

1. Statutory and Administrative Response Authority

The Health Division's emergency response authority stems from the statutory charge to administer state policy regarding public health in Oregon, and is contained in ORS 284.830.

Division staff responds to incidents endangering the public's health or safety at the request of the Emergency Management Division or a local public health agency.

Release of Hazardous Substances

The Division's response authority for hazardous substances release is contained in ORS 453.105, which gives the assistant director for health the authority to have such substances removed from commerce if sufficient threat to the public health and safety exists. Under ORS 622.180, the Division has the responsibility to ensure the cleanliness and sanitation of waters used for commercial shellfish raising.

Accidents Involving Radioactive Materials

The Division is the State Radiation Control Agency under ORS 453.635, and is an agreement agency to the U.S. Nuclear Regulatory Commission. Quantities of radioactive material of public health significance are possessed in Oregon only under the authority of a license issued by the Division unless the material is in transport or under exclusive federal jurisdiction. In case of a transportation accident involving radioactive material, ORS 469.611 designates the Division as the on-scene accident coordinator. Refer to Annex P, Radioactive Material (Transportation) Emergency Response Plan, for more information.

Accidents Affecting or Potentially Affecting a Drinking Water Source

Under ORS 448.150 and 448.250, the Health Division maintains the state drinking water quality program to ensure that drinking water systems do not pose a threat to the public's health.

The Division maintains records of water supply locations and sources so that in the event of an accident, action may be quickly taken to protect the population served by the affected supply. The Division's health and engineering staff will respond to an incident to give guidance to responders, and to take administrative control of the water supply if necessary.

## 2. Incidents

The Division responds to any accident or spill that involves (a) the spread of communicable disease, (b) hazardous substances affecting the public, (c) radioactive materials or wastes or (d) any substance affecting the quality of a drinking water supply or any commercial shellfish bed.

## 3. Chain of Command

During regular working hours, incidents involving materials or substances under the authority of the Health Division are called into the section manager responsible for the type of reported incident.

Off-hours notification for incidents are made to the Health Division through a 24-hour call list provided to the Emergency Management Division.

## 4. Response and Resources

The Health Division's role is the state's consultant or coordinator for assessing protective measures for public health in response to an incident. All responses are made and directed from the Portland office, and are coordinated with Division field staff and local public health agencies. The Division can provide field staff for sample collection and analytical capability for all radioactive isotopes in any media. Although the Division is not equipped to provide actual cleanup services, the staff could direct such operations and assess when site recovery is complete.

## 5. Response Office

Health Division  
1400 S.W. 5th  
P.O. Box 231  
Portland, OR 97207  
229-5032

## 6. Health Division Contingency Plan

Single copies of the "Health Division Emergency Response Plan" can be obtained by calling or writing to the Portland office of the Health Division.

## E. Oregon State Highway Division

### 1. Administrative Response Authority

The Maintenance Section of the Highway Division is responsible for the safety of the traveling public on the State Highway System and the protection of its facility. The Highway Division responds to any incident that jeopardizes this charge.

## 2. Incidents

In the event that any hazardous materials are spilled on or near a state highway, a Highway Maintenance Supervisor or maintenance worker may be the first employee on the scene.

## 3. Chain of Command and Response

The Highway Maintenance Supervisor and assistant of each section have had training in recognition and handling of hazardous materials.

The first response would be to ensure the safety of traffic and adjacent property and to work with police and other officials on the scene.

The Highway Maintenance Supervisor will contact the District Maintenance Supervisor with the details on the situation, including (a) location, nature and extent of closure; (b) steps taken to remedy situation; (c) provisions made to handle traffic; (d) type of chemical or hazard, if identifiable and (e) bill of freight information, or driver information.

The District Maintenance Supervisor will contact the appropriate region engineer, maintenance engineer and state highway engineer, reporting in detail the facts of the incident, if necessary.

The District Maintenance Supervisor or his designee will go to the scene to assist in the protection and routing of traffic. The cleanup of the spill and restoration of the highway facility will then be determined.

The protection of traffic may involve a detour or bypass of traffic. The Highway Division has barricade materials, manpower and ability to set up and operate such facilities.

The Highway Division has mobile and base radios for quick communications. Although State Police and Highway Division radio systems are on different frequencies, a system of mutual monitoring of base stations permits a quick interchange of information via radio.

## 4. Response Offices

State Highway Engineer's Office  
140 Transportation Building  
Salem, Oregon 97310  
378-6516

Region 1  
9002 SE McLoughlin Boulevard  
Milwaukie, Oregon 97222  
653-3090

Maintenance Section Office  
885 Airport Road  
Salem, Oregon 97310  
378-6528

Region 2  
205 E. Salem Highway  
Building 2960  
E. State St.  
Salem, Oregon 97310  
378-2626

Region 3  
1523 SE Cobb  
Roseburg, Oregon 97470  
440-3399

Region 5  
2111 Adams Avenue  
La Grande, Oregon 97850  
963-3177

Region 4  
North The Dalles-California Hwy.  
Bend, Oregon 97708  
388-6180

F. Oregon State Parks and Recreation Division

1. Statutory and Administrative Response Authority

The State Parks and Recreation Division is responsible for the acquisition, improvement, maintenance, operation and protection of state parks under ORS 390. Also the Division manages the ocean shore, eight scenic waterways and the Willamette River Greenway.

2. Incidents

The State Parks' role in natural or man-caused hazards or disaster incidents is to protect all the state parks, ocean shore, waterways, greenway and the public visiting the area.

3. Chain of Command and Response

The State Parks Administrator directs the parks system via a headquarters staff in Salem and five Region State Park Supervisors stationed throughout the state.

When a disaster or hazard occurs at state park lands or waters, the Region State Park Supervisor in the affected area is the first to be contacted. If the supervisor cannot be reached, then the District Park Manager should be notified. The Region State Park Supervisor or Park Manager notifies other officials in the division.

State Parks personnel assist other agency officials in crowd and/or traffic control, and provide information, equipment and facilities as possible. Responding agencies should consult the appropriate Region State Park Supervisor or District Park Manager for proper access across or to state park lands or waters.

4. Response Offices

REGION I (Willamette Valley and Portland Metro/Counties)

Region State Park Supervisor  
3554 S.E. 82nd  
Portland, OR 97266  
238-7491 or 238-7492

REGION I (continued)

District Park Headquarters

Tryon Creek 636-4550	Silver Falls 873-8682
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Armitage 343-7812	Champoeg 678-1251
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Rooster Rock  
695-2261

REGION II (North Coast from Columbia River to Yachats)

Region State Park Supervisor  
3600 E. Third Street  
Tillamook, OR 97141  
842-5501

District Park Headquarters

Beverly Beach 265-9278	Cape Lookout 842-4981
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Fort Stevens 861-3170	South Beach 867-7451
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REGION III (South Coast from Yachats to California Border)

Region State Park Supervisor  
1155 S. Fifth Street  
PO Box 1265  
Coos Bay, OR 97420  
269-9410

District Park Headquarters

Umpqua Lighthouse 271-4118	J.M. Honeyman 997-3851
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Cape Blanco 332-6774	Harris Beach 469-2021
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Bullards Beach 347-2209	Sunset Bay 888-4902
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REGION IV (Central and Southern Oregon)

Region State Park Supervisor  
63055 N. Hwy. 97, P.O. Box 5309  
Bend, OR 97701  
388-6211

REGION IV (continued)

District Park Headquarters

The Cove Palisades 546-3412	Collier Memorial 783-2471
Prineville Reservoir 447-4363	Valley of the Rogue 582-1118
Robert Sawyer 388-2601	The Gorge District 296-2215 (Message)

REGION V (Eastern Oregon)

Region State Park Supervisor  
2111 Adams Avenue, P.O. Box 850  
La Grande, OR 97850  
963-6444

District Park Headquarters

Emigrant Springs 983-2277	Farewell Bend 869-2365
Wallowa Lake 432-4180	Catherine Creek 963-4227
Hat Rock 567-5032	Clyde Holliday 575-0163

5. State Parks Contingency Plan

State Parks and Recreation Division emergency operations plans are on file and available from State Parks Headquarters, 525 Trade Street SE, Salem, OR 97310, 378-5020.

G. Department of Forestry

1. Statutory Authority

The Department of Forestry (DOF) has authority through ORS 527.630 to enforce Forest Practice Rules dealing with pesticide and oil spills on forest lands.

2. Incidents

Usually DOF personnel will be first on the scene in incidents on or adjacent to forest lands if the activity is related to forest operations.

The Forestry Department is responsible for directing initial remedial action on pesticide and oil spills involving the application of herbicides, insecticides, fertilizers, fungicides, rodenticides and petroleum products if the spill occurs on forest lands regulated under the Oregon Forest Practice Act. Actions

are closely coordinated with the Department of Environmental Quality.

The DOF is capable of rapidly mobilizing a substantial response organization including complete radio systems, dispatch and command center trailers, public information personnel, state and privately owned equipment, and support services for on-site personnel if needed.

The DOF responds with available people and equipment to any incident connected to an operation on forest land or forest land related, and to a request from any agency in the OARS.

### 3. Chain of Command

Forest Practice Foresters generally are first dispatched to the scene of an incident. They are responsible to take prompt action to minimize resource damage.

Reports are communicated to district offices. District offices immediately notify area offices, the Forest Practice Section, Protection Division Chief and the State Forester. The Forest Practice Section notifies other agencies involved at the administrative level. Districts notify involved agencies locally.

### 4. Response and Resources

DOF personnel designate an on-scene coordinator to direct initial remedial action or to act in the interim until personnel from the responsible agency are on the scene and in control.

Where the Department of Environmental Quality or other agency is responsible to provide coordination, the DOF will appoint a liaison person to provide coordination of forestry forces at the scene.

All incidents on forest land are investigated by a DOF investigator, and an investigation report is filed with the DOF Forest Practices Director.

Reports from the first Forestry Department person on the scene includes: (a) type of incident, present situation, chemicals involved; (b) location of the incident; (c) name of the operators; (d) resources involved or threatened; (e) personnel on the scene and person in charge; (f) most direct communication link to the site; (g) most direct travel route to the site and (h) assistance needed.

5. Response Offices

NORTHWEST OREGON AREA

Area Director  
State Forestry Office  
801 Gales Creek Road  
Forest Grove, OR 97116  
357-2191

District Headquarters

Forest Grove District Forester 801 Gales Creek Road Forest Grove, OR 97116 357-2191	Astoria District Forester Route 1, Box 950 Astoria, OR 97103 325-5451
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Tillamook District Forester  
4907 E. Third Street  
Tillamook, OR 97141  
842-2545

EASTERN OREGON AREA

Area Director  
State Forestry Office  
Route 2, Box 357  
Prineville, OR 97754  
447-5658

District Headquarters

N.E. Oregon Dist. Forester East Adams at 20th La Grande, OR 97850 963-3168	Klamath-Lake Dist. Forester Box 400 Klamath Falls, OR 97601 883-5681
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E. Central Oregon Dist. Forester P.O. Box 546 John Day, OR 97845 575-1139	Walker Range Patrol Assn. District Supervisor P.O. Box 665 Gilchrist, OR 97737 433-2451
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W. Central Oregon Dist. Forester  
Route 2, Box 357  
Prineville, OR 97754  
447-5658

WILLAMETTE AREA

Area Director  
State Forestry Office  
2600 State Street  
Salem, OR 97310  
378-2558

District Headquarters

Clackamas-Marion Dist. Forester  
14995 S. Hwy. 211  
Molalla, OR 97038  
829-2216

Eastern Lane Dist. Forester  
3150 Main Street  
Springfield, OR 97477  
726-3588

West Oregon Dist. Forester  
Star Route 2, Box 1B  
Philomath, OR 97370  
929-3266

Linn District Forester  
4690 Highway 20  
Sweet Home, OR 97386  
367-6108

Western Lane Dist. Forester  
P.O. Box 157  
Veneta, OR 97487  
935-2283

SOUTHERN OREGON AREA

Area Director  
State Forestry Office  
1785 N.E. Airport Road  
Roseburg, OR 97470  
440-3412

District Headquarters

S.W. Oregon Dist. Forester  
5286 Table Rock Road  
Central Point, OR 97502  
664-3328

Coos FPA Dist. Supervisor  
300 Fifth Street, Bay Park  
Coos Bay, OR 97420  
267-3161

Elliott State Forest Manager  
300 Fifth Street, Bay Park  
Coos Bay, OR 97420  
267-4136

Douglas FPA Dist. Supervisor  
1758 N.E. Airport Road  
Roseburg, OR 97470  
672-6507

D.L. Phipps St. Forest Nursery Mgr.  
Route 3, Box 193  
Elkton, OR 97436  
584-2214

H. Accident Prevention Division

1. Statutory and Administrative Response Authority

The Accident Prevention Division (APD) in the Workers' Compensation Department has the authority and responsibility to investigate fatalities and catastrophes that involve employe(s) at a workplace, according to ORS 654 and OAR 436-46-055(2).

2. Incidents

Employers are responsible for reporting to APD any employe(s) fatalities or catastrophe within 48 hours of the occurrence.

APD responds to workplace-related fatalities or catastrophes that involve (a) an accident in which two or more employes are fatally injured, or five or more employes are each sent to, go to and/or are admitted to a hospital or an equivalent medical facility; (b) accidents of significant publicity or (c) accidents or events of national importance that involve extensive property damage and could have involved two deaths or injuries requiring hospitalization to five or more employes.

### 3. Chain of Command

The overall program response is commanded through the Accident Prevention Division Administrator and the Manager of Enforcement.

The APD Administrator, who has the prime responsibility for the direction and coordination of the APD investigation, acts quickly to ensure that the Manager of Enforcement investigates accidents following the established guidelines.

The Manager of Enforcement promptly relays all pertinent information to the Director of Workers' Compensation Department that is received from the District Manager when the catastrophe occurs.

The Manager of Enforcement advises the safety/health compliance officer and the team members of other federal or state agencies or organizations participating in the investigation. The Information Section is responsible for the release of information and necessary news releases, providing additional information concerning investigations as available. The information official goes to the scene to handle publicity when directed by the Director.

### 4. Response and Resources

APD has no authority to direct rescue operations, which is primarily the responsibility of the employer and/or local political subdivisions or state agencies. APD has, however, the authority to monitor and inspect the working conditions of covered employes engaged in rescue operations to make certain that all necessary procedures are being taken to protect the lives of the rescuers.

Based on the technical knowledge of APD personnel at the scene, advice may be given concerning the safest or most effective way to conduct rescue operations.

The safety/health compliance officer warns the employer that a citation, Red Warning Notice, or injunctive procedure may be given if the employer intends to use a rescue procedure that may violate a rule or general duty clause, or constitute an imminent danger when less hazardous procedures are available.

5. Response Offices

District 1 (West Multnomah, Washington and Columbia Counties)  
Park Plaza W, Building 2, Suite 414  
10700 SW Beaverton-Hillsdale Hwy  
Beaverton, Oregon 97005  
643-0100

District 2 (East Multnomah, Clackamas)  
4531 SE Belmont  
Portland, Oregon 97215  
239-8600

District 3 (Marion, Polk, Yamhill, Lincoln, Tillamook, Clatsop)  
3887 Wolverine NE, Suite 26  
Salem, Oregon 97301  
378-3274

District 4 (Benton, Linn, Lane)  
2677 Willakenzie, Suite 6  
Eugene, Oregon 97401  
686-7562

District 5 (Deschutes, Klamath, Lake, Harney, Malheur, Baker,  
Grant, Crook, Wheeler, Jefferson, Wasco, Sherman, Gilliam,  
Morrow, Umatilla, Union, Wallowa)  
2150 NE Studio Rd.  
Bend, Oregon 97701  
388-6066

District 6 (Douglas, Coos, Curry, Josephine, Jackson)  
816 W. 8th  
Medford, Oregon 97501  
776-6030

6. Expert Assistance

The Central Office maintains a current list of safety and health professionals within APD who are experts in their fields. The experts are available for investigations of fatalities and catastrophes and for testifying in any subsequent legal proceedings.

The advice of an attorney may be necessary at a very early stage of the investigation, available through the Workers' Compensation Division of the Department of Justice.

7. APD Contingency Plan

The complete agency contingency plan is available by request from the Workers' Compensation Department, Accident Prevention Division, Labor & Industries Bldg., Rm. 204, Salem, Oregon, 97310, 378-3272.

I. Department of Fish and Wildlife

1. Statutory and Administrative Response Authority

The Department of Fish and Wildlife (DFW) operates under the authority of ORS 496, which provides for management, maintenance and enhancement of Oregon wildlife.

2. Incidents

The Department of Fish & Wildlife responds to any spill or discharge of petroleum product, chemical or other material that could degrade land or water to the point that fish or wildlife would be adversely affected or killed, or their habitat degraded or destroyed.

3. Chain of Command and Response

The Emergency Management Division or Department of Environmental Quality contacts DFW if the spill affects or potentially affects fish or wildlife resources. Also, DFW may be informed directly by the U.S. Coast Guard or U.S. Environmental Protection Agency.

DFW evaluates the reported information, initiates calls to appropriate agency personnel who can provide any needed response, and contacts other concerned state and federal agencies to coordinate response efforts.

Primary interacting DFW entities are Environmental Management Section, Regional Offices and District Fish and District Wildlife Biologists. All should be kept informed of developments during a spill incident.

When responding to a spill, the DFW field representative evaluates potential and actual damage to fish and wildlife resources, and provides advice, counsel and logistic support as may be necessary. In case of extensive damage to fish or wildlife, it may be necessary to request additional help from available DFW staff from the involved Region, adjoining Region or the Portland office to assist in documentation of damages.

4. Response Offices

Chemical and Oil Spills

Environmental Management Section	Southeast Region
506 S.W. Mill Street	3140 N.E. Stephens Street
Portland, OR 97201	Roseburg, OR 97470
229-5683, 229-5679 or 229-5433	573-6582

Fish Division	Northeast Region
Marine Science Drive	P.O. Box 339
Building #3	La Grande, OR 97850
Newport, OR 97365	963-2138
867-4741	

Columbia Region  
17330 S.E. Evelyn Street  
Clackamas, OR 97015  
657-2137

Southwest Region  
3140 N.E. Stevens Street  
Roseburg, OR 97470  
440-3353

Northwest Region  
Rt. 5, Box 325  
Corvallis, OR 97330  
757-4186

Central Region  
61374 Parrell Road  
Bend, OR 97701  
388-6363

General Situations

Fish Division  
506 S.W. Mill Street  
Portland, OR 97201  
229-5440

Operations Section  
506 S.W. Mill Street  
Portland, OR 97201  
229-5667

Wildlife Division  
506 S.W. Mill Street  
Portland, OR 97201  
229-5456

5. DFW Contingency Plan

Copies of the "Contingency Plan for Spills of Oil and Hazardous Substances" are available from the Department of Fish and Wildlife, 506 S.W. Mill Street, Portland, Oregon 97201, 229-5683.

J. Public Utility Commissioner (Motor Carrier and Rail-Air Programs)

1. Statutory and Administrative Authority

Concerning motor carrier transportation of hazardous materials, no specific statutes charge the PUC with accident/incident response. But ORS 767.020(1), (2) and (2)(a) promote safe, adequate, economical and efficient service, and conservation of energy. The primary thrust of the program is to prevent accidents by maintaining high safety standards for railroads, highways, equipment and operations. In addition, ORS 756.075 gives right of entry for examination of equipment, records and employees.

Transportation of hazardous materials and wastes by rail as well as penalty provisions are covered in ORS 761.370, 761.380, 761.395, 761.400, 761.405, 761.415, 761.900, 761.990(5) and (6), and 761.994. The Public Utility Commissioner (PUC) must be notified before class A explosives and poison gas are transported into the state by railroad. Rules on railroad transportation of hazardous materials were adopted through the listed statutes which became effective March 1, 1979.

Both programs enforce statutes and rules designed to help deter accidents involving hazardous materials, to enforce federal standards for rail and highway safety, and to analyze potential problems.

## 2. Incidents

The Public Utility Commissioner's on-site response is usually triggered when a major accident occurs on the highway or railroad involving hazardous materials. The response usually involves investigation of major derailments or incidents or commercial motor vehicle accidents after the threat to human life or health, property or environment is contained. Basically, PUC is interested in investigating the cause of the accident.

## 3. Chain of Command

Initial contact for highway accidents of hazardous materials should be made in the following order: Motor Investigations Division Administrator, Motor Safety Section Supervisor and Senior Motor Safety Specialist.

For railroad derailments or other incidents, contact in order the following people: Emergency Management Division Administrator, Rail/Air Program Executive Assistant, Rail Safety Division Administrator, and Rail/Air Program Assistant Commissioner.

## 4. Response and Resources

The Public Utility Commissioner provides 24-hour response for major accidents involving hazardous materials. The PUC will determine the (a) driver's qualifications, (b) hours of service, (c) mechanical condition of equipment, (d) cargo loading and securement and (e) compliance with applicable hazardous materials and waste regulations.

On-site investigative activities will take place after the primary task of removing or arresting the hazard(s) to life, property and the environment.

Acting in the role of consultant or advisor, the PUC determines if proper contact and notification procedures have been initiated to Emergency Management Division, local emergency response agency, Department of Environmental Quality, and Coast Guard.

## 5. Response Offices

PUC Motor Carrier Program  
Labor & Industries Building  
Salem, Oregon 97310

Investigations Division  
Administrator - 378-6736

Senior Motor Safety  
Specialist - 378-4602

Motor Safety Section  
Supervisor - 378-4355

Rail-Air Program  
Labor & Industries Building  
Salem, Oregon 97310

Emergency Management Division  
Administrator - 378-4124\*

Rail Safety Division  
Administrator - 378-6217

Rail/Air Program Executive  
Assistant - 378-6204

Rail/Air Program Assistant  
Commissioner - 378-6351

\* 24 hours

6. PUC Contingency Plan

Copies of the "PUC Contingency Plan" are available at the Labor & Industries Building, Salem, Oregon, 97310.

K. Department of Agriculture

1. Statutory and Administrative Authority

The Oregon Department of Agriculture (ODA) administers several statutes and administrative rules that pertain to agricultural chemicals (pesticides, fertilizers, and food and animal feed additives). The Plant Division administers the licensing of pesticide applicators, registration and labeling of agricultural chemicals. The Laboratory Services Division performs residue analysis on food and animal feed, and if requested, on water, soil and foliage samples. The Food and Dairy Division is responsible for determining if there is contamination and adulteration of foods, including raw and processed foods.

2. Incidents

ODA responds to fertilizer or agricultural chemical spills with technical assistance, sampling and/or monitoring.

3. Response and Resources

The Plant Division provides technical assistance to the agency with immediate, on-site response to an agricultural chemical spill. Assistance includes information concerning the material spilled, methods of spill containment, procedures for decontamination and treatments for exposure to the spilled material. The Plant Division also conducts sampling relevant to an agricultural chemical spill. Sampling may be of the material spilled and of soil, water or other material possibly contaminated by the spilled material.

Laboratory Services Division analyzes the Plant Division's samples, and similar samples taken by other agencies responding to the spill.

The Plant Division or Food and Dairy Division, in association with the United States Food and Drug Administration (FDA), monitors food and animal feed for contamination from a chemical spill.

If additional technical assistance relevant to an agricultural chemical spill is needed, ODA contacts one or more of the following: the manufacturer of the agricultural chemical spilled, CHEMTREC (1-800-424-9300), National Agricultural Chemicals Association Action Response Team (Stauffer Chemical Company, Portland, Oregon, 286-4451), and United States Environmental Protection Agency (EPA).

4. Response Offices

Plant Division  
Oregon Dept. of Agriculture  
Agriculture Building, Room 110  
Salem, OR 97310-0110  
378-3776

Administrator and Supervisor  
Chemistry Operations  
Laboratory Services Division  
Oregon Dept. of Agriculture  
Agriculture Building, Room 214  
Salem, OR 97310-0110  
378-3793

5. ODA Contingency Plan

The Contingency Plan for Spills of Fertilizers and Pesticides can be obtained by calling or writing the Department of Agriculture, Agriculture Building, Salem, Oregon, 97310-0110, 378-3776 or 378-3793.

L. Office of State Fire Marshal

1. Statutory and Administrative Authority

The State Fire Marshal operates under the authority of ORS 476.515, Other Office Authorized to Act When the Governor is Unavailable and the Emergency Conflagration Act.

2. Incidents

The State Fire Marshal responds to fire situations that develop beyond the capabilities of local fire suppression authority.

3. Chain of Command and Response

During regular working hours, the State Fire Marshal's office or Fire Department Dispatch Center can be contacted at their offices through the Emergency Management Division. On weekends, holidays and after regular working hours, the Emergency Management Division notifies Dispatch Centers or the State Fire Marshal at home.

When a fire emergency develops beyond the capabilities of local fire suppression resources, the Local Fire Chief notifies the County Fire Chief that mutual aid or, if not sufficient, mobile support is needed. The County Fire Chief informs the District Fire Chief and State Fire Marshal of the situation.

When the local and county fire suppression resources are unable to control the fire emergency, the District Fire Chief reports the conditions to the State Fire Marshal, who verifies the need

and requests authorization of the Governor or authorized alternate to implement the Emergency Conflagration Act.

The State Fire Marshal and staff set up the Control Center in the State Fire Marshal's office, contact the Governor or line of successors for authorization to implement the Act, and follow interoffice standard operating procedures until the fire emergency has ended.

4. Response Offices

Fire Marshal's Office

103 Labor and Industries Building  
Salem, OR 97310

(contacted in the following order)

- |  |  |
|--|--|
| (1) State Fire Marshal<br>378-4917                         | (4) Fire Prevention/Investigation<br>Specialist - 378-4917 |
| (2) Chief Deputy<br>373-1276                               | (5) Training Section Specialist<br>378-4464                |
| (3) Fire Prevention/Investigation<br>Supervisor - 378-4917 |  |

Fire Department Dispatch Centers

Salem Fire Department  
588-6111

Marion County Fire District #1  
588-6251

District Chiefs

District 1 Fire Chief  
Tillamook

District 7 Fire Chief  
North Bend

Districts 2 & 3 Fire Chief  
Washington County  
RFPD #2, Hillsboro

District 9 & 12 Fire Chief  
Wasco RFPD, The Dalles

District 4 Fire Chief  
Newport

District 10 & 11 Fire Chief  
Klamath County Fire District #1  
Klamath Falls

District 5 Fire Chief  
Albany

Districts 13 & 14 Fire Chief  
Baker

Districts 6 & 8 Fire Chief  
Grants Pass

A list of county fire chiefs is available from the State Fire Marshal's office.

5. State Fire Marshal Contingency Plan

Copies of the contingency plan are available from the State Fire Marshal Office, 103 Labor and Industries Building, Salem, OR 97310, or call 378-4917.

M. Military Department

1. Statutory and Administrative Response

The Oregon National Guard, under direction of the Military Department, State of Oregon, provides assistance to civilian authorities when a state of emergency is declared by the Governor. Organization, training, administration and operation of the Oregon National Guard are described in ORS 396 and 399.

2. Incidents

The Oregon National Guard is capable of providing assistance in almost any emergency or disaster, whether natural or man-caused. The type of incident that could generate a need for National Guard assistance includes floods, forest fires, wind and snow storms, earthquake/volcanic activity, civil disturbance (riots), war and nuclear incidents (including war).

3. Chain of Command

The Military Department is structured to direct and control National Guard emergency support through the military chain-of-command.

The standard emergency assistance request is generated by a local community, through the County Emergency Services Coordinator/Director, to the State Emergency Services Division. Commitment of the National Guard is held in temporary inactivity until the capacity of local assistance has been exhausted or when the nature of the incident will likely exceed the capabilities of local control.

The State Emergency Services Director evaluates each request and, if appropriate, refers the matter to the Military Department for action.

The Military Department maintains a variety of plans for emergency operations. The Director of Military Support to Civil Authorities at the Military Department maintains continuous liaison with the Emergency Services Division. Potential emergency situations are monitored by the Military Department in preparation for National Guard involvement.

When directed by the Governor (through the Emergency Services Division) or the Adjutant General, the Oregon National Guard is placed in a state active duty status. The State of Oregon becomes financially involved for the pay, fuel and equipment maintenance of the committed forces. When fully committed, the Oregon National Guard is organized in a task force

configuration. The State Area Command (STARC) is divided into five subarea commands as follows: (a) Subarea I Command (Portland) - Commander, 41st Infantry Brigade; (b) Subarea II Command (Salem) - Commander, 1249th Engineer Battalion; (c) Subarea III Command (Cottage Grove) - Commander, 2nd Battalion 162nd Infantry; (d) Subarea IV Command (Ashland) - Commander, 1st Battalion 186th Infantry and (e) Subarea V Command (La Grande) - Commander, 3rd Squadron 116th Armored Cavalry.

Emergency operations most frequently demand the commitment of less than a total state mobilization of the National Guard. The policy of the Governor and the Adjutant General is to mobilize only those resources necessary to control, contain, or recover from the emergency situation. When resource commitment is less than a full subarea command (as is usually the case), operational control is retained by the Military Department (Director of Military Support to Civil Authorities).

#### 4. Response and Resources

The Oregon National Guard, Army and Air, is composed of nearly 9,500 people in 91 separate units, located in 44 armories (including three aviation facilities) in 40 communities around the State.

General capabilities of the Oregon National Guard in emergency operations are (a) clearing debris and repairing streets, highways, rail centers, dock facilities, airports, and other areas, as necessary, to permit rescue or movement of people and to provide access and recovery of vital resources, (b) repairing facilities of a minor nature, usually damages that delay recovery operations, (c) administering first aid for casualties and (d) securing and protecting vital facilities and resources.

Also, the Guard is involved in (a) maintaining law and order in support of local and State law enforcement officials, (b) controlling traffic, (c) providing support activities for fire fighting and (d) recovering, collecting, safeguarding and distributing food and other critical supplies.

Specialized capabilities of the Guard include: providing limited supply of potable water from water purification units and 400-gallon water trailers, transporting and installing packaged disaster hospitals, providing limited source of electrical power from portable generators, and rescuing disaster victims through ground and aerial efforts.

Other specialized capabilities are providing people and equipment for mass feeding of disaster victims, establishing communications networks with fixed and mobile radios and/or support civil authorities with qualified radio operators, providing aerial surveillance of disaster area, and assisting in the recovery, identification and disposition of the deceased.

## 5. Response Offices

Director, Military Support  
to Civil Authorities  
2150 Fairgrounds Rd. NE  
Salem, Oregon 97303  
378-6864

Chief of Staff  
2150 Fairgrounds Rd. NE  
Salem, Oregon 97303  
378-3989

Director, Operations & Training  
2150 Fairgrounds Rd. NE  
Salem, Oregon 97303  
378-3903

The Adjutant General  
2150 Fairgrounds Rd. NE  
Salem, Oregon 97303  
378-3981

Deputy Chief of Staff  
2150 Fairgrounds Rd. NE  
Salem, Oregon 97303  
378-3985

A Staff Duty Officer is available during off-duty hours. The Duty Officer may be reached through the Military Department answering service by calling 378-3980.

## 6. Military Department Contingency Plan

Instructions for activation of the Military Department for the State of Oregon emergency operations are contained in the Oregon National Guard Pamphlet 500-1 (ORNG Pam 500-1). A current copy of the pamphlet is available through the Emergency Management Division. Contingency plans at the Military Department include: (a) Alert and Mobilization Plan (for official use only) for limited or general war; (b) Civil Disturbances Operations Plan -- special training is conducted annually by task organization; (c) Emergency Operations Plan, Oregon National Guard, which is designed for application in any state emergency and (d) the Fire Mobilization Plan of the State Forestry Department is maintained with a special agreement between Forestry and Military because of the urgency and frequency of support activities.

The Director of Military Support to Civil Authorities at the Military Department maintains emergency operations plans from other agencies, both state and federal, and from adjacent states.

## N. Oregon State University

### 1. Response Authority

The purpose of Oregon State University (OSU) is educational, but within the faculty and staff exists a wide variety and depth of expertise, which could be called upon to offer assistance in times of hazardous substances emergencies.

### 2. Incidents

While no structure or responsibility exists requiring emergency response of the type envisioned by the Hazardous Material

Emergency Response Plan, the professionals will respond as university faculty and good citizens.

3. Chain of Command and Response

Campus Specialists can be contacted for information, directly or for access to specific information.

4. Response Offices

Entomologist  
Cordley 2055  
Oregon State University  
Corvallis, OR 97331  
754-3151

Extension Agent Engineering  
Gilmore 203  
Oregon State University  
Corvallis, OR 97331  
754-4021

Toxicologist & Chemist  
Weniger 341  
Oregon State University  
Corvallis, OR 97331  
754-3791

Toxicology Chemist  
Weniger 237  
Oregon State University  
Corvallis, OR 97331  
754-2906

Since sites of emergencies are unpredictable, Oregon State University has knowledgeable faculty members in the extension offices at 36 locations in Oregon, who can be called up in emergencies.

Baker County  
523-6414, ext. 230

Gilliam County  
384-2271

Benton County  
757-6750

Grant County  
575-1911

Clackamas County  
655-8631

Harney County  
573-2506

Clatsop County  
325-8625

Hood River County  
386-3343

Columbia County  
397-3462

Jackson County  
776-7371

Coos County  
396-3121, ext. 242, 246, 240

Jefferson County  
475-3808

Crook County  
447-6228

Josephine County  
476-6613

Curry County  
247-7011, ext. 281

Klamath County  
883-7131

Deschutes County  
548-6088

Lake County  
947-2279

Douglas County  
672-4461

Lane County  
687-4243

Lincoln County  
265-6611, ext. 207

Tillamook County  
842-5511, ext. 372, 373

Linn County  
967-3871

Umatilla County  
276-7111, ext. 235

Malheur County  
881-1417

Union County  
963-1010

Marion County  
588-5301

Wallowa County  
426-3143

Morrow County  
676-9642

Wasco County  
296-5494

Multnomah County  
229-4830

Washington County  
640-3574

Polk County  
623-8395

Wheeler County  
763-4115

Sherman County  
565-3230

Yamhill County  
472-9371, ext. 559

0. Oregon Department of Justice

1. Statutory and Administrative Response Authority

The elected Oregon Attorney General, who is the administrative head of the Oregon Department of Justice, is directed by the Legislature to "perform all legal services for the state or any department or officer of the state," ORS 180.060(5), upon request. Additionally, the Attorney General "shall . . . direct the district attorneys in all criminal . . . matters relating to state affairs . . .," ORS 180.060(4), and may "take full charge of any investigation or prosecution of violation of law," ORS 180.070(1), at the direction of the Governor. The Attorney General provides his services through assigned counsel to each agency (Assistant Attorneys General) who "have full authority under the direction of the Attorney General to perform any duty required by law to be performed by the Attorney General" ORS 180.140(1).

2. Incidents

The Oregon Department of Justice responds to all incidents (a) at the request of the state agency having jurisdiction, (b) at the request of the Governor or (c) upon the Attorney General's own motion.

3. Chain of Command and Response

The Oregon Department of Justice is headed by the Attorney General. The Attorney General has one Deputy Attorney General, who is authorized to act in his absence. The Department of Justice is divided into six divisions, each headed by a Division

Administrator. The Trial Division provides trial attorneys for most of the State's trial court appearances. The General Counsel Division provides attorneys to most of the state agencies. The General Counsel Division is subdivided into nine sections, each headed by an Attorney-in-Charge.

Regarding response to an incident, ordinarily each affected state agency will contact its assigned counsel (or that counsel's assistants) after an investigation has been commenced but before it is completed. The agency's counsel then would provide legal advice and assistance, and would obtain the aid of a Trial Division attorney, if necessary. It is also possible that a request for legal assistance could come down the chain of command to counsel assigned to an agency from the Attorney General upon his own motion or at the request of the Governor. In addition, the Department of Justice through its appointed member of the Hazardous Materials Council, or substitute, could be directly requested by the Emergency Management Division to give legal assistance in which case appropriate agency counsel, and trial counsel if necessary, would be contacted and would respond.

Once contacted, agency counsel would be responsible for (a) arranging any necessary assistance from the Trial Division and other appropriate General Counsel or other Division attorneys, and (b) coordination of legal efforts with local and federal agencies.

#### 4. Response Offices

##### General Counsel Division

Justice Building  
1162 Court Street  
Salem, OR 97310  
378-4620

##### Education Section representing:

Department of Higher Education  
Oregon State University, Department of Entomology

##### Finance and Government Section representing:

Executive Department, Emergency Management Division  
Military Department  
Public Utility Commissioner

##### Licensing and Regulatory Law Section representing:

Department of Commerce, Fire Marshall Division

##### Natural Resources Section representing:

Department of Agriculture  
Department of Energy  
Energy Facility Siting Council  
Department of Forestry

Transportation Section representing:  
Transportation Department  
Highway Division  
Parks and Recreation Division  
Traffic Safety Commission

Criminal Justice Division

Salem Office  
100 Justice Building  
1162 Court Street  
Salem, OR 97310  
378-6347  
Representing Department of State Police

Trial Division

Justice Building  
1162 Court Street  
Salem, OR 97310  
378-6313

Business/Labor/Consumer Affairs Division

Workers Compensation Unit  
201 Labor & Industries Building  
Capitol Mall  
Salem, OR 97310  
378-3341  
Representing Accident Prevention Division

Oregon Department of Justice

500 Pacific Building  
520 SW Yamhill  
Portland, OR 97204  
229-5725

Natural Resources Section representing:  
Department of Environmental Quality  
Department of Fish and Wildlife

Health and Human Services Section representing:  
Health Division

P. Oregon Traffic Safety Commission

1. Response Authority

The Oregon Traffic Safety Commission (OTSC) is not a first responder in emergencies. The Commission makes sure that the statutes and resources are available on the public streets and roads of Oregon to respond in an emergency.

HB 2146 HAZARDOUS MATERIALS  
EQUIPMENT COMMITTEE

State Agencies

1. Mike Boyce - Chairperson - 2146 Steering Committee  
State Fire Marshal 378-2885
2. Bruce Sutherland - Project Coordinator - 2146 Steering Committee  
Dept. of Environmental Quality 229-6047
3. Bob Robison - 2146 Steering Committee  
Dept. of Energy 378-3194
4. Joseph Murray - 2146 Steering Committee  
Emergency Management Division 378-4124
5. Bob Crosby  
Health Division 657-2023
6. Dan Shults  
State Forestry 378-2373
7. Ralph Rodia  
Accident Prevention Division 378-3274
8. Jim Stevenson  
Oregon State Police 378-3723
9. Bill James  
Dept. of Transportation

Federal Agencies

1. Gordon Goff  
Environmental Protection Agency (206) 442-1196

Industry

1. Trucking  
  
Bruce Johnson  
Speeds Towing 238-6211
2. Railroads  
  
Rick Sloan  
Southern Pacific 220-4424

Industry (Cont'd.)

3. Clean-up Contractors

Pat Turina  
Riedel Environmental Services 286-4656

4. Equipment

Robert Rucinski  
Mine Safety Appliances

5. Chemical Manufacturers

Lewis Wiedewitsch  
Pennwalt Corp. 228-7655

Emergency Groups

1. Len Malmquist  
Oregon Fire Chiefs' Assn. 661-3000

2. Joe Reeves  
Oregon State Fire Fighters Council 649-6875

Indian Nations

1. Jerry Huff  
Warm Springs Fire Department 553-1161 X 200

90

HB 2146 HAZARDOUS MATERIALS  
PLANNING COMMITTEE

State Agencies

1. Joseph Murray - Chairperson - 2146 Steering Committee  
Emergency Mgmt. Division 378-4124
2. Bruce Sutherland - Project Coordinator - 2146 Steering Committee  
Dept. of Environmental Quality 229-6047
3. Bob Robison - 2146 Steering Committee  
Dept. of Energy 378-3194
4. Ray Stroud - 2146 Steering Committee  
State Fire Marshal 378-2885
5. Nick Goevelinger  
Health Division 229-5797
6. Dan Shults  
Dept. of Forestry 378-2373
7. Paul Henry  
Public Utility Comm. 378-6736
8. Rob Edgar  
Dept. of Transportation 378-6528
9. Major Richard Verbeck  
Oregon State Police 378-3723
10. Irving Jones  
Oregon Dept. of Fish & Wildlife 229-5683

Federal Agencies

1. Gordon Goff  
Environmental Protection Agency (206) 442-1196
2. Gary Rundell  
Bureau of Land Management 231-6977
3. Lt. Ivan Nance  
U.S. Coast Guard 230-9300

Industry

1. Trucking  
  
Bruce Leonard  
ANR Freight 1-800-525-2061

Industry (Cont'd.)

2. Railroads  
Michael Eyer  
Bureau of Explosives 241-4560
3. Chemical Manufacturers  
Lewis Weidewitsch  
Pennwalt Corp. 228-7655
4. Mark Warkington  
Tektronix Corp.

Emergency Groups

1. Oregon Fire Chiefs' Assn.  
Sid Boddy 770-4453
2. Alvin Allen  
Oregon Assn. of Chiefs of Police 769-3421
3. Casey Marley  
Emergency Mgmt. Assn. 655-8218
4. John Graham  
Douglas County Health

Emergency Medical

1. Frank Divers  
Oregon Fire Medical Administrators Assn.
2. Chuck Harris  
Emergency Medical Technicians Assn.

Indian Nations

1. Dale Parker  
Warm Springs 553-1161 X270

HB 2146 HAZARDOUS MATERIALS  
TRAINING COMMITTEE

State Agencies

1. Bob Robison - Chairperson - 2146 Steering Committee  
Dept. of Energy 378-3194
2. Bruce Sutherland - Project Coordinator - 2146 Steering Committee  
Dept. of Environmental Quality 229-6047
3. Joseph Murray - 2146 Steering Committee  
Emergency Management Division 378-4124
4. Le Ann Janusch  
State Fire Marshal 378-2885
5. Nancy Clark  
Health Division 229-6365
6. Dan Shults  
Dept. of Forestry 378-2373
7. Dale Rhodes  
Accident Prevention Division 378-3274
8. Dave White  
Dept. of Transportation 378-2638
9. Howard Brock  
Dept. of Education 378-8291
10. Jim Stewart  
Board of Police Standards & Training 378-2100
11. Capt. Thomas Drynan  
Oregon State Police 378-8192

Federal Agencies

1. Gordon Goff  
Environmental Protection Agency (206) 442-1196
2. Gary Rundall  
Bureau of Land Management 231-6977

Industry

1. Trucking  
  
Carol Fuller  
Widing Transportation 286-3661

Industry (Cont'd.)

2. Railroads

Rick Sloan  
Southern Pacific Railroad 220-4424

Michael Eyer  
Bureau of Explosives 241-4560

3. Chemical Manufacturers

Lewis Weidewitsch  
CMA - Pennwalt Corp. 228-7655

Quentin Monro  
Shell Oil Company 220-1258

Local Emergency Groups

1. Rick Hopkins  
Oregon Fire Chiefs' Assn.

2. Dave Rouse  
Oregon Assn. of Chiefs of Police 436-2811

3. Penny Malmquist  
Emergency Management Assn. 255-3600

4. Joe Reeves  
Oregon State Fire Fighters Council 649-6875

5. Oregon State Sheriffs' Assn.

Community Colleges

1. Bill Henle  
Portland Community College

Emergency Medical

1. Chuck Harris  
Emergency Medical Technicians' Assn.

2. Charles Fish  
Emergency Nurses' Assn. 963-8421

Indian Nations

1. Jerry Huff  
Warm Springs Fire Dept. 553-1161 X200

House Bill 2146  
Policy Advisory Committee

Chairperson:

James Van Dyke, Executive Dean, Rock Creek Campus  
Portland Community College (244-6111) X 4591

Local Government:

Jeanne Hughes, County Commissioner, Umatilla County (276-7111)  
Mike Gleason, City Manager, Eugene (687-5010)  
Pete Hansen, Oregon Fire Chiefs' Assn., Bend (388-5533)  
John DeFrance, Oregon County Emergency Mgmt. Assn.,  
Columbia County (397-2100)  
Fred Pearce, Oregon State Sheriffs' Assn.,  
Multnomah County (255-3600)

Citizens:

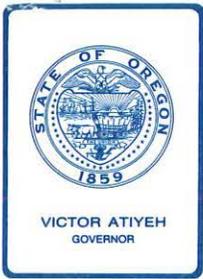
Danielle Green, Ore. Environmental Council, Portland (244-1181)  
Sarah Laumann, Oregon State Public Interest  
Research Group, Portland (222-9641)  
Cherilyn Foglio, Oregon Red Cross, Portland (295-5042)  
Marguerite Watkins, League of Women Voters, Coos Bay (267-4615)

Industry:

John Burns, Petroleum Industry, Attorney, Portland (224-5858)  
Edward Locke, Chemical Mfg. Assn., Plant Manager,  
Pennwalt Corp., Portland (228-7655)  
Dean Scheel, Oregon Trucking Assn., Vice President,  
Arrow Transport, Portland (222-1876)  
Pat McCormick, American Electronics Assn., Salem (363-3902)  
Everett Cutter, Oregon Railroad Assn., Mgr., Portland (227-0060)

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107



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

OCTOBER 24, 1986

### BREAKFAST AGENDA

1. DEQ's 1987-89 Biennium Budget Request and Previous Budgets John Rist
2. Discussion of issues relating to adoption of rules to implement 1984 hazardous and solid waste amendments to RCRA Mike Downs
3. Proposed 1987 meeting schedule.

### LUNCH AGENDA

Tour of new DEQ offices at 811 SW Sixth Avenue, Portland.

### MATTERS TO BE DISCUSSED AT END OF FORMAL MEETING AGENDA

1. Northwest Region Manager's Report
2. Tri-Met Noise Agreement

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE MEMO

TO: Environmental Quality Commission

DATE: October 8, 1986

FROM: John Rist  
Budget Manager

SUBJECT: DEQ's 1987-89 Biennium Budget Request and Previous Budgets

Attached for your information and reference is a summary document (Attachment A) indicating our 1987-89 budget request and five previous bienniums of budget information by fund, program and budget category. I have also included four graphs (A-D) indicating budget and number of full-time equivalent (FTE) position trends since the 1977-79 biennium. Attachment B outlines the decision packages DEQ submitted as a part of the budget request.

1. Attachment A

- Of our \$45 million 1987-89 budget request, \$17 million is represented in decision packages reflecting new programs or enhancements to existing programs and \$28 million is for continuation of our base budget activities. Of our \$17 million in decision packages we are requesting \$1.4 million of General Funds for enhanced efforts in Groundwater Protection and the implementation of the federal 1984 Hazardous and Solid Waste Amendments to maintain our authorized hazardous waste program (14 FTE's), \$12.8 million of Other Funds (43.73 FTE's) and \$2.8 million of Federal Funds (32.41 FTE's).

2. Attachment B outlines the twenty (20) decision packages totalling \$17 million the Department requested indicating funding, FTE's and agency priority.

3. Graph A

Indicates DEQ's operating budgets as a percentage by fund over the past ten years (5 bienniums) and our 87-89 budget request. This graph further shows the decrease in General and Federal Funds as a percentage of the total with an increase in Other Funds.

4. Graph B

Indicates DEQ's operating budget as a percentage by program over the past ten years (5 bienniums) and our 87-89 budget request. This graph shows that the Air Quality, Water Quality and Agency Management programs have decreased as a percentage of the total since 1977-79 while Hazardous and Solid Waste increased.

5. Graph C

Indicates the 1987-89 budget request in terms of FTE's by headquarters (261.14), regions (69.14) and the lab (59.64).

6. Graph D

Indicates DEQ's FTE's by program over the past 10 years (5 bienniums) and our 1987-89 budget request of FTE's by program. This graph shows that for 1987-89 the Air Quality program requests 147.30 FTE's, Water Quality 104.63, Hazardous and Solid Waste 97.99 and Agency Management 40.0.

JR:r

BRL652

ATTACHMENT A

O.B.12years  
07-Oct-86

DEQ OPERATING BUDGETS  
12 Years (Six Bienniums) Budget Data

Summary by Fund	77-79 Actuals	% of Fund	79-81 Actuals	% of Fund	81-83 Actuals	% of Fund	83-85 Actuals	% of Fund	85-87 L.A.B.	% of Fund	87-89 Agency Request	% of Fund	Net % +Inc/-Dec over 77-79
General	8,248,111	45%	8,957,577	41%	7,460,513	34%	8,481,239	37%	9,042,423	35%	11,021,869	24%	
Other	6,094,290	33%	6,334,795	29%	7,529,637	35%	8,386,121	37%	10,211,288	39%	24,440,998	54%	
Federal	4,180,633	22%	6,420,635	30%	6,650,289	31%	5,989,725	26%	6,810,427	26%	9,675,268	21%	
<b>Total</b>	<b>18,523,034</b>	<b>100%</b>	<b>21,713,007</b>	<b>100%</b>	<b>21,640,439</b>	<b>100%</b>	<b>22,857,085</b>	<b>100%</b>	<b>26,064,138</b>	<b>100%</b>	<b>45,138,135</b>	<b>100%</b>	

Total Percent Increase/Decrease  
Over Prior Biennium Expenditures

General		8.6%		-16.7%		13.7%		6.6%		21.9%		33.6%
Other		3.9%		18.9%		11.4%		21.8%		139.4%		301.0%
Federal		53.6%		3.6%		-9.9%		13.7%		42.1%		131.4%
<b>Total</b>		<b>17.2%</b>		<b>-0.3%</b>		<b>5.6%</b>		<b>14.0%</b>		<b>73.2%</b>		<b>143.7%</b>

Summary by Program	77-79 Actuals	% of Program	79-81 Actuals	% of Program	81-83 Actuals	% of Program	83-85 Actuals	% of Program	85-87 L.A.B.	% of Program	87-89 Agency Request	% of Program
Air Quality	8,816,210	48%	9,223,338	42%	9,707,878	45%	10,793,663	47%	11,404,736	44%	14,443,936	32%
Water Quality	5,813,517	31%	7,438,950	34%	6,695,429	31%	6,256,662	27%	7,553,730	29%	9,786,535	22%
Haz/Solid Waste	1,830,853	10%	2,115,052	10%	2,518,728	12%	3,237,609	14%	3,554,910	14%	16,457,712	36%
Agency Mgmt.	2,062,454	11%	2,935,667	14%	2,718,404	12%	2,569,151	12%	3,550,762	14%	4,449,952	10%
<b>Total</b>	<b>18,523,034</b>	<b>100%</b>	<b>21,713,007</b>	<b>100%</b>	<b>21,640,439</b>	<b>100%</b>	<b>22,857,085</b>	<b>100%</b>	<b>26,064,138</b>	<b>100%</b>	<b>45,138,135</b>	<b>100%</b>

Summary by Budget Category	77-79 Actuals	% of Category	79-81 Actuals	% of Category	81-83 Actuals	% of Category	83-85 Actuals	% of Category	85-87 L.A.B.	% of Category	Agency Request	% of Category	Net % +Inc/-Dec over 77-79
Personal Services	11,741,040	63%	14,159,542	65%	14,732,351	68%	15,911,481	70%	18,544,604	71%	26,012,471	58%	121.6%
Services & Supplies	5,553,551	30%	6,545,655	30%	6,134,451	28%	6,072,110	27%	6,662,046	26%	16,789,389	37%	202.3%
Capital Outlay	529,957	3%	710,710	3%	511,928	2%	519,402	2%	449,301	2%	1,889,719	4%	256.6%
Special Payments	524,953	3%	330,974	2%	356,930	2%	354,092	2%	408,187	2%	446,556	1%	-14.9%
Other Non-Limited	173,533	1%	(33,874)	-0%	(95,221)	-0%		0%		0%		0%	-100.0%
<b>Total</b>	<b>18,523,034</b>	<b>100%</b>	<b>21,713,007</b>	<b>100%</b>	<b>21,640,439</b>	<b>100%</b>	<b>22,857,085</b>	<b>100%</b>	<b>26,064,138</b>	<b>100%</b>	<b>45,138,135</b>	<b>100%</b>	

ATTACHMENT B

87-89 DEQ DECISION PACKAGES

AGENCY REQUEST SUMMARY

PRIOR -ITY	PACK -AGE NO.	DECISION PACKAGE	EXPENDITURES BY FUND			TOTAL EXPENDITURES	TOTAL FTE'S	TOTAL POSITIONS
			GF	OF	FF			
<u>Air Quality</u>								
20	101	VIP Equip. Replacement	0	470,000	50,000	520,000	0	0
13	102	Special Projects	0	36,451	609,789	646,240	4.83	8.0
7	103	Toxics	0	0	107,631	107,631	1.0	1.0
19	104	Field B. Research	0	85,566	0	85,566	1.0	1.0
8	105	Indoor Air	0	190,072	0	190,072	2.0	2.0
6	106	Asbestos	0	128,453	119,726	248,179	2.5	3.0
16	107	Compliance Assurance	0	95,239	0	95,239	1.0	1.0
(7) AQ Subtotal			0	1,005,781	887,146	1,892,927	12.33	16.0
FTE's			0	5.5	6.83	12.33		
<u>Water Quality</u>								
15	108	Pretreatment	0	42,562	56,972	99,534	1.0	1.0
14	109	Construction Grants	0	127,938	1,016,738	1,144,676	12.5	13.0
3	110	Groundwater Protection	669,872	0	0	669,872	5.0	5.0
17	111	Critical Basins	0	0	438,249	438,249	4.0	4.0
(4) WQ Subtotal			669,872	170,500	1,511,959	2,352,331	22.5	23.0
FTE's			5.0	2.0	15.5			

ATTACHMENT B

87-89 DEQ DECISION PACKAGES

AGENCY REQUEST SUMMARY

PRIOR -ITY	PACK -AGE NO.	DECISION PACKAGE	EXPENDITURES BY FUND			TOTAL EXPENDITURES	TOTAL FTE'S	TOTAL POSITIONS
			GF	OF	FF			
<u>Hazardous &amp; Solid Waste</u>								
2	112	HW Fund Shift	0	1,169,087	(556,992)	612,095	6.5	8.0
1	113	HW '84 Amendments	804,275	0	0	804,275	9.0	9.0
5	114	Spill Response	0	2,616,262	0	2,616,262	5.69	8.0
9	115	U.S.T.	0	1,429,187	262,343	1,691,530	10.96	14.0
4	116	Remedial Action	0	5,402,172	676,495	6,078,667	18.75	22.0
18	117	Landfill Siting	0	361,000	0	361,000	.41	5.0
(6) H&SW Subtotal			804,275	10,977,708	381,846	12,163,829	51.31	66.0
FTE's			9.0	32.23	10.08			
<u>Agency Management</u>								
10	118	Program Support	0	207,553	0	207,553	2.0	2.0
12	119	Workload Increase	0	247,964	0	247,964	2.0	2.0
11	120	Efficiency Improvements	0	155,000	0	155,000	0	0
(3) AM Subtotal			0	610,517	0	610,517	4.0	4.0
FTE's				4.0				

ATTACHMENT B

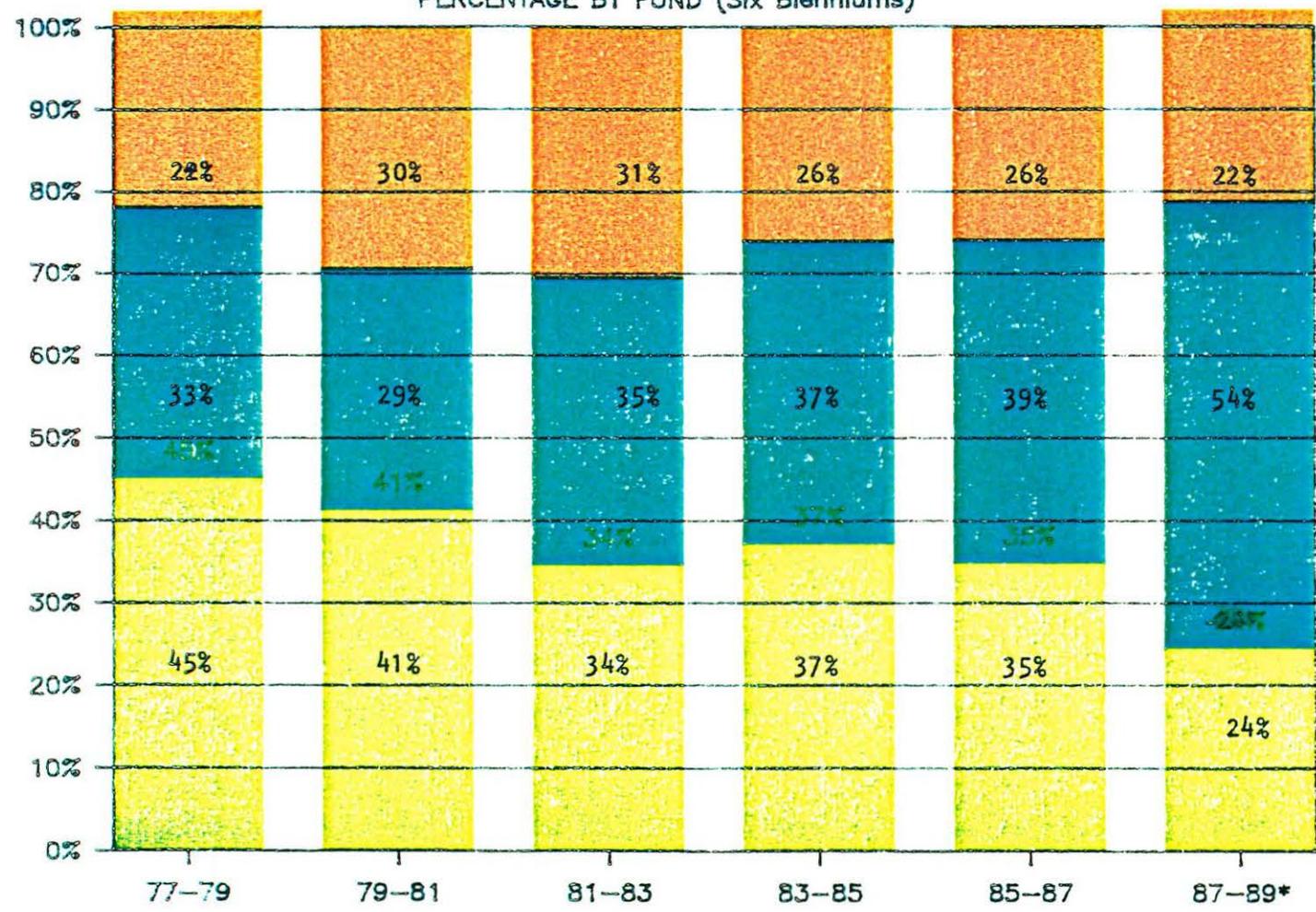
87-89 DEQ DECISION PACKAGES

AGENCY REQUEST SUMMARY

PRIOR -ITY	PACK -AGE NO.	DECISION PACKAGE	EXPENDITURES BY FUND			TOTAL EXPENDITURES	TOTAL FTE'S	TOTAL POSITIONS
			GF	OF	FF			
		<u>TOTAL DEQ</u>						
		(7) Air Quality	0	1,005,781	887,146	1,892,927	12.33	16
		(4) Water Quality	669,872	170,500	1,511,959	2,352,331	22.5	23
		(6) Haz. & Solid W.	804,275	10,977,708	381,846	12,163,829	51.31	66
		(3) Agency Mgt.	0	610,517	0	610,517	4.0	4
<u>TOTAL EXPENDITURES</u>			<u>1,474,147</u>	<u>12,764,506</u>	<u>2,780,951</u>	<u>17,019,604</u>	<u>90.14</u>	<u>109</u>
TOTAL FTE's			14.0	43.73	32.41			

# DEQ OPERATING BUDGETS

PERCENTAGE BY FUND (Six Bienniums)



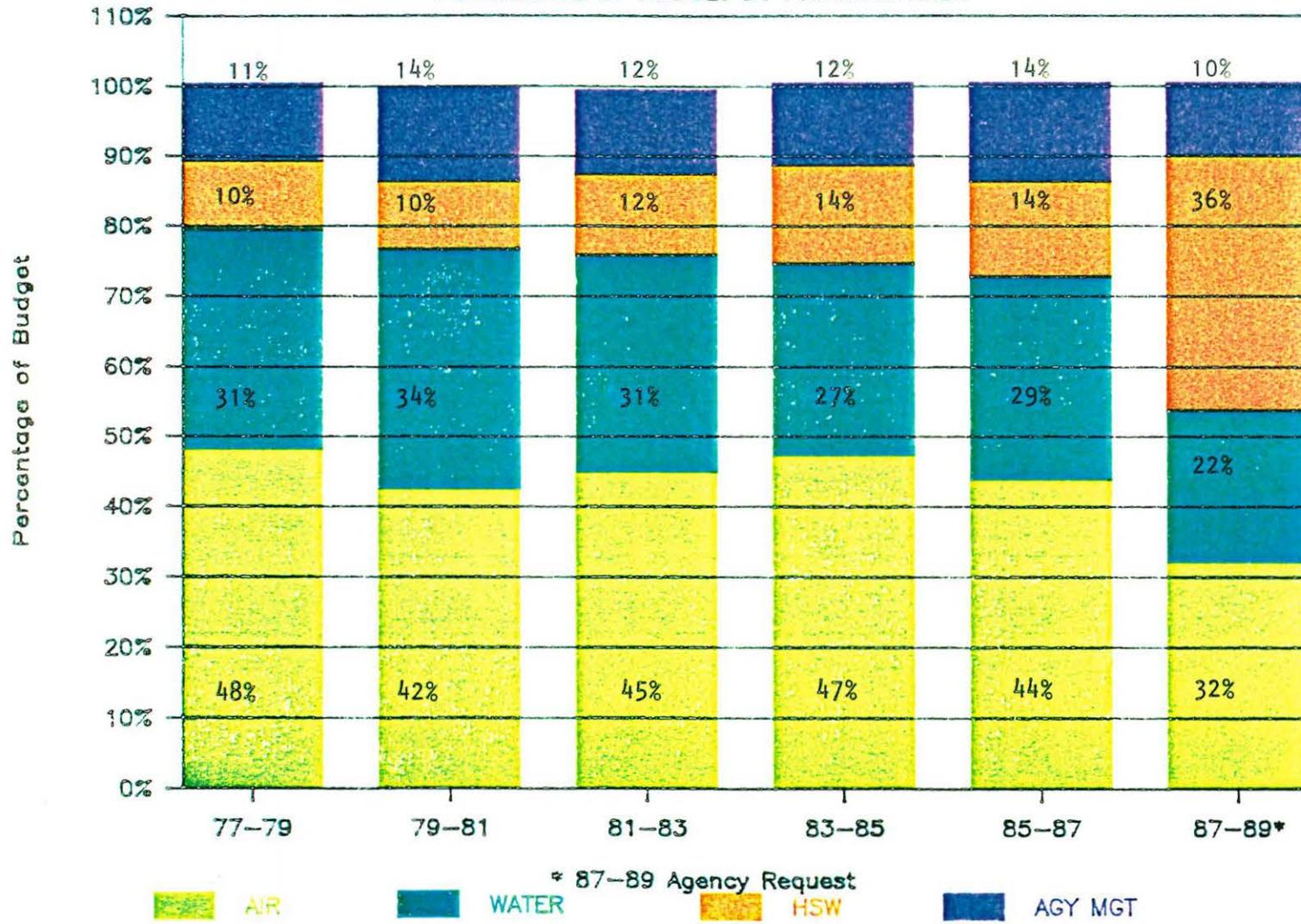
GENERAL FUND

\* 87-89 Agency Request  
OTHER FUND

FEDERAL FUND

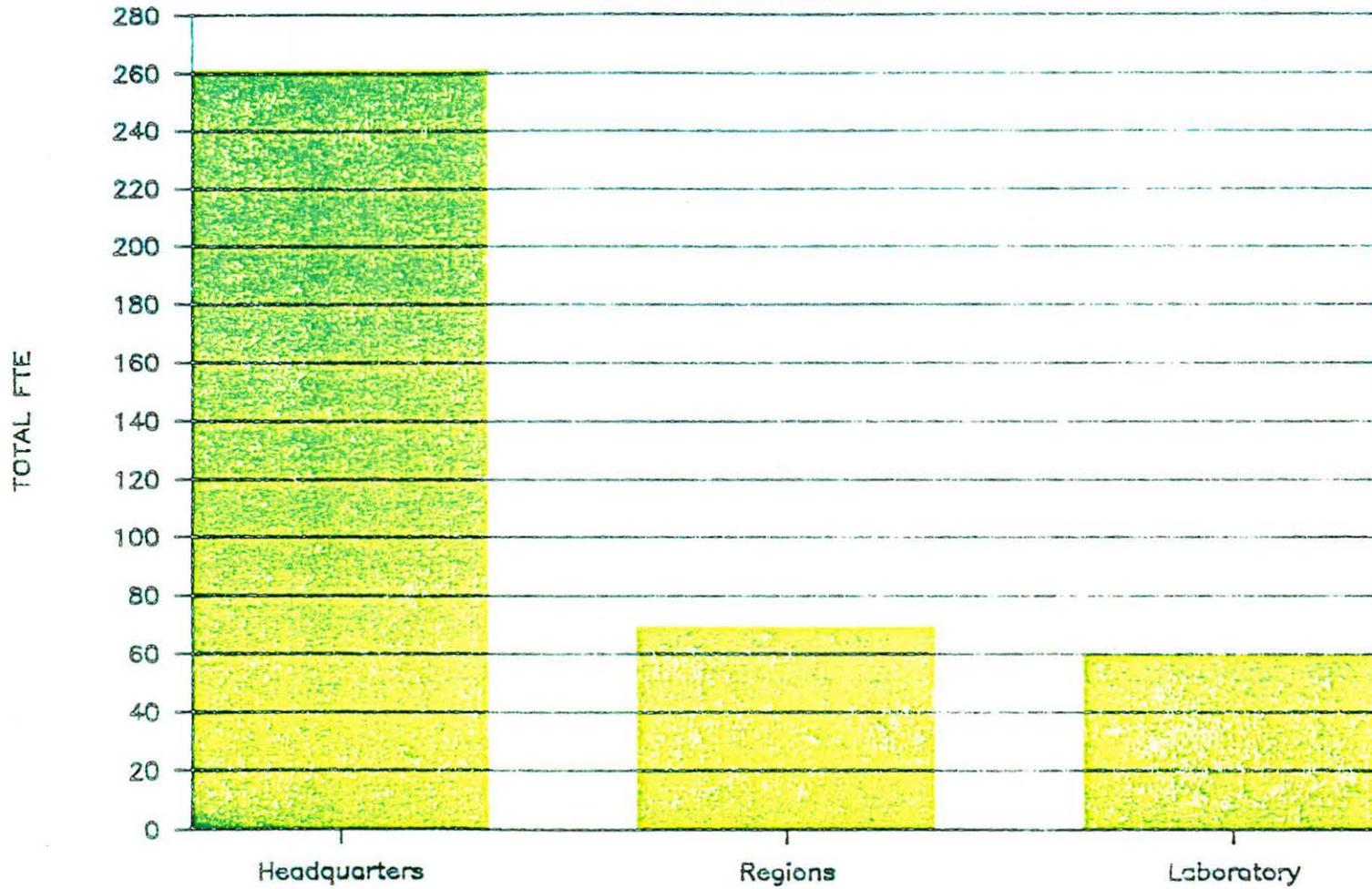
# DEQ OPERATING BUDGETS

PERCENTAGE OF BUDGET BY PROGRAM AREA



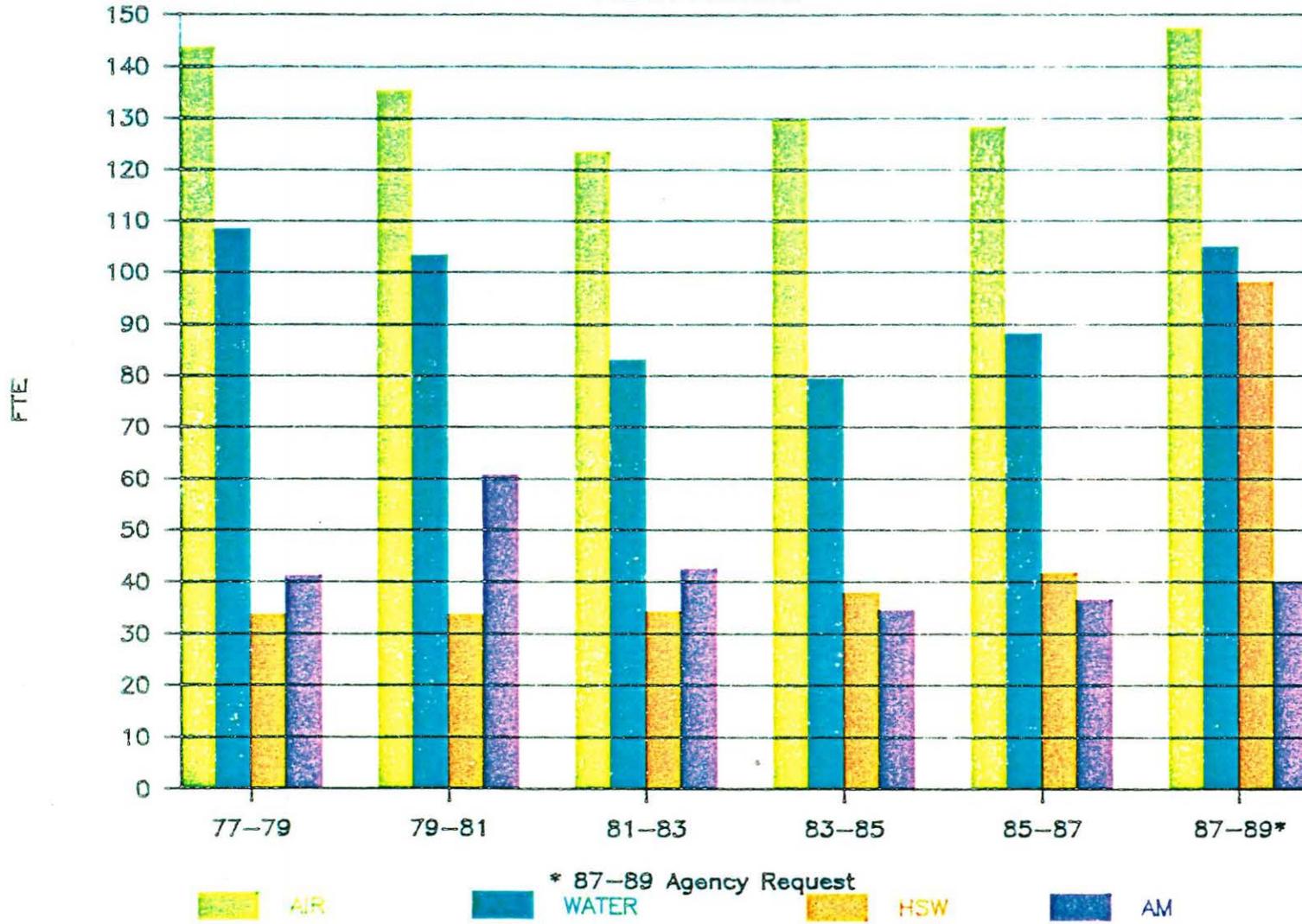
# 87-89 AGENCY REQUEST

TOTAL FTE BY DIVISION



# DEQ OPERATING BUDGET

FTE BY PROGRAM



PROPOSED 1987 MEETING DATES

(Locations to be determined)

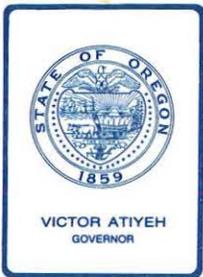
January 23  
 March 6  
 April 17  
 May 29  
 July 10  
 August 21  
 October 2  
 November 20

1987

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
S M T W T F S 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 X 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 X 3 4 5 6 7 8 9 10 11 12 13 14 15 X 17 18 19 20 21 22 23 24 25 26 27 28	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 X 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 X 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 X 12 13 14 15 16 17 18 19 20 21 22 23 24 25 X 27 28 29 30	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 X 26 27 28 29 30 31

HOLIDAYS (X)

- January 1 - New Years Day
- January 19 - Martin Luther King Jr's Birthday
- February 2 - Lincoln's Birthday
- February 16 - Presidents' Day
- May 25 - Memorial Day
- July 4 (Observed July 3) - Independence Day
- September 7 - Labor Day
- November 11 - Veterans' Day
- November 26 - Thanksgiving Day
- December 25 - Christmas Day



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

TO: Environmental Quality Commission      DATE: October 24, 1986

FROM: Janet A. Gillaspie  
Manager

SUBJECT: Northwest Region Report

The Northwest Region covers the 6 northwest counties of the state including Multnomah, Clackamas, Washington, Columbia, Tillamook, and Clatsop Counties. The staff includes 11 engineers and biologists and 3 support staff. The region operates out of Portland, with a part time office in Astoria to service the subsurface sewage program. The region has the highest concentration of population in the state and the largest number of industrial sources.

### Air Quality

Industrial air pollution sources include 32 sources over 100 tons of pollution potential per year, and about 150 industries which are significant but less than 100 ton air pollution sources. Because of Portland's non-attainment status for particulate, carbon monoxide, and ozone, industrial compliance is a high priority.

Presently, only one major air quality source, Astoria Plywood, is significantly out of compliance with air quality standards. This older mill has problems controlling its emissions from wood-fired veneer dryers.

The mill is on a schedule to be in compliance November 1, but it is unlikely that Astoria Plywood will be able to meet emission standards by that date. They have made improvements to control emissions over the past year, and the efforts have successfully reduced smoking and soot-blowing from the boiler.

The region has been focusing on lead emissions, in part due to concerns at area battery manufacturers and a secondary lead smelter in St. Helens. Research is continuing with the Air Quality Division and the Laboratory to determine if a lead fallout standard is needed. Ambient air standards for lead are met at all lead-using facilities in the region, but concerns remain over the possible health impacts of contaminated soil containing high levels of lead fallout from these facilities.

## Environmental Quality Commission

October 24, 1986

Page 2

The region operates part of the Department's backyard burning hardship program. A total of 1,011 hardship permits were issued in 1985. Of that, 324 were annual permits, 351 spring only, and 335 fall burning only. About 25% of the permits are granted the fee waiver. In 1986, 352 spring permits were issued, and about 250 fall permits have been issued to date. All backyard burning complaints are responded to, and all hardship burning permit applications are reviewed by the region staff.

### Water Quality

Twenty-three water quality industrial and municipal sources in the region are classified as major water pollution sources. An additional 161 industrial and municipal sources operate under regular discharging or non-discharging permits. The region makes a substantial effort to ensuring compliance with water quality standards due to the sensitive nature of the Willamette River and other waterways. Presently all major industrial and municipal sources are meeting permit limits, or have been placed on a compliance schedule.

A major accomplishment in improving quality was marked in early October with the dedication of the Tri-Cities Waste Treatment Plant. The facility, designed to collect and treat sewage from Oregon City, Gladstone and West Linn, replaces three older, overloaded plants.

With the cutbacks in the construction grant program, local governments are now attempting to plan and finance sewage treatment plant expansions on their own. The thoughtful, albeit bureaucratic, guidelines of the federal construction grant program are not being used in these efforts, and the region must spend time assisting these municipalities in approaching their planning and design work in an organized way.

The region is also involved in assisting the Unified Sewerage Agency (USA) in planning for its growth needs. Over the next 20 years, the USA system may experience an increase of 15 - 20 additional million gallons of wastewater per day. This is equivalent to an additional large treatment plant similar to the Durham or Rock Creek plants. Although the Tualatin River Study is under way, it seems likely that additional discharges of that amount may not be able to be accommodated within the slow-moving Tualatin River. USA and its consultants are evaluating several different options, including piping wastewater to the Willamette or Columbia Rivers, land irrigation, or storage for holding during the summer low river flows.

### Solid Waste

Substantial progress has been made over the past few years in upgrading solid waste sites in the region. Open burning dumps at Seaside and Cannon Beach were closed. Three dumps causing water pollution problems were closed at Warrenton, Santosh (Columbia County) and Astoria. The landfill at Tillamook has been upgraded to meet minimum operating standards. Transfer stations at Astoria, Seaside, Pacific City, and Manzanita now operate as solid waste collection sites.

Substantial effort is being directed to developing the closure permit and post closure remedial action program for the Rossman's Landfill, a closed landfill in Clackamas County. This site violates secondary drinking water standards at the site boundary, and under the combined reading of the Commission's solid waste rules and groundwater policy, a study of the Highest and Best Practicable Alternatives to stem the pollution problem must be undertaken and appropriate pollution control efforts implemented. Should the available pollution control efforts be unable to meet drinking water standards at the solid waste boundary, the site operator would most likely request a solid waste variance from the Commission. The Department, the site operator, his consultants and attorneys, continue to wrestle with this difficult closure permit, which will likely set the tone of other closure permits for major landfill sites around the state.

#### Hazardous Waste

The majority of hazardous waste generators and Treatment, Storage, and Disposal facilities are in the Northwest Region. Two staff people are dedicated to this program. The current funding level in the hazardous waste program does not allow the Department to conduct a comprehensive generator surveillance program which is necessary to ensure high level of compliance with the complex hazardous waste rules.

Substantial efforts over the past year have focused on compliance problems at the Bergsoe Metal Facility in Columbia County. This secondary lead smelter, reputed to be the cleanest in the nation when it opened in 1979, has had consistent environmental problems over the past 2 years. A loss of several thousand gallons of lead and cadmium contaminated acid resulted in a \$2,500 penalty in 1985. An inspection in February, 1986 showed the site was contaminated with lead and cadmium. A 13,000-yard pile of slagg and matt pile which the company indicated to the Department was only solid waste, turned out to be hazardous waste. The facility was operating as an unlicensed Treatment, Storage, or Disposal facility, and had none of the required operating procedures, or financial assurance mechanisms. Several months after the inspection, the facility closed. Bergsoe Metal was fined \$16,000 for the violations; and both a Department and EPA order was issued including a compliance schedule. Bergsoe Metal has since defaulted on the penalty and order.

A study of the pollution at the site is being undertaken by the site's operator, Front Street Management. The Department and EPA have set a deadline of November 10, 1986 for posting a minimum of \$1,000,000 to ensure initial proper closure of the facility. Failure on the part of the responsible parties to post the necessary money may result in additional legal action by the Department and EPA.

Past practice investigations are underway at several sites in the region including:

- The Dant and Russell site is a former wood treating facility in North Plains, which is now bankrupt. Burlington Northern Railroad, as the land owner, has been left with the cleanup. Cresote and

pentachlorophenol have been found buried at the site, and concern for the groundwater is heightened since the City's drinking water well is from a deep aquifer under the site. Presently, EPA is directing the work under an emergency order issued a year ago.

- McCormick and Baxter, a Portland woodtreater, voluntarily approached the Department to request a schedule for completing the necessary studies to propose feasible alternatives. An initial report is due in February of 1987.
- The Northern Doane's Lake Investigations in the Northwest Industrial District of Portland is just beginning. This investigation is a cooperative effort of Northwest Natural Gas, Koppers, and Wacker Siltronics.

Changes in the priorities by the Hazardous and Solid Waste Division will mean greater past practice and State Superfund work over the next few months to gather the necessary information for the legislative package.

#### Other Activities

- Complaints

The region responds to about 125 pollution complaints received from the public each month. These complaints are time consuming, but are an important element of the overall compliance program.

- Spills

All spills in the region are screened for response. Regional staff respond on-scene if necessary, and will direct cleanup as needed. Spills vary in scope and significance, but often require substantial follow-up effort.

- Underground Tank Leaks

New concern for underground tanks have prompted many industries to remove old tanks from service. The Department needs to be involved where these tanks have leaked, to ensure adequate cleanup.

Janet A. Gillaspie:y

BY3520

229-5292

October 22, 1986



## *Environmental Quality Commission*

Mailing Address: BOX 1760, PORTLAND, OR 97207

522 SOUTHWEST 5th AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

### MEMORANDUM

To: Environmental Quality Commission

From: Director

Subject: Additional Agenda Item, October 24, 1986, EQC Meeting

Proposed Modifications to the Bus Noise Inspection  
Intergovernmental Agreement Between the EQC and Tri-Met

### Background

A petition for rulemaking was received on April 16, 1984 from the Livable Streets Coalition, asking that Portland area motor vehicles be inspected for excessive noise as part of the current air emission inspection program. The petition requested that all major motor vehicle categories, including Tri-Met's diesel transit buses, be included in a noise inspection program.

After accepting the petition, the Commission directed the Department to develop, prior to April 1, 1985, an agreement that would ensure that all of Tri-Met's buses are maintained to appropriate noise emission limits. On June 7, 1985, an intergovernmental agreement was approved for testing and certifying of the buses which met the noise standards. The agreement provided for amendments to be made after the first year of testing. This report provides a review of the testing process and also provides the Commission the opportunity to consider the proposed modifications of the agreement.

### Discussion

Approximately 600 diesel powered transit buses, providing public transportation throughout Clackamas, Multnomah and Washington counties, are owned and operated by Tri-Met. During the last half of 1985 approximately 150 buses were tested and certified by their supervisory staff. Due to a number of mitigating circumstances - personnel changes, threat of a labor action and inclement weather - the entire bus fleet was not tested as specified in the agreement.

In January, 1986, a meeting was held between Tri-Met and Department staff to review the agreement and determine how the testing schedule would be re-implemented. At that time, it was agreed that testing and certification of the remaining buses (approximately 450) would be completed prior to May 1, 1986. To accomplish this task, Tri-Met proposed they obtain the services of Mr. Michael Kaye, Acoustic Consultant to complete the testing process.

These services were secured. Between March, 1986 and June 10, 1986, Tri-Met and their consultant tested the remaining 450 buses. Failing buses, with a list of possible sources of excessive noise, were returned to the shop to be repaired. Mr. Kaye prepared an extensive report reflecting the noise levels of each sub-group of buses. A copy of the report is included as Attachment 1.

#### Evaluation

Under terms of the intergovernmental agreement, Tri-Met is required to annually certify that each bus meets a noise emission limit. This noise limit is intended to distinguish defective or deteriorated exhaust system components from those in good (quiet) repair. For noise testing purposes, Tri-Met's bus fleet is currently considered to consist of 14 sub-fleets, representing the different bus models with their respective engine and exhaust system configurations. Because of the various sub-fleet systems, differing noise limits were established for each sub-fleet. Tri-Met has taken corrective measures for bus noise compliance that has ranged from simple bolt tightening, gasket replacement, and muffler replacement, to an exhaust system conversion using components that were not supplied when the vehicle was new. This latter option has been used only when vehicles from sub-fleet 20 exceeded their sub-fleet noise limit. It should be noted also that Tri-Met has found the noise testing to be an engine diagnostic test as well as a way to meet noise emission levels.

Tri-Met has submitted proposed amendments (Attachment 2) to the existing agreement. Department staff has met with Tri-Met staff to review this proposal. After discussing the issues, the Department recommends the following alternatives to Tri-Met's proposal.

1. Tri-Met has requested that the inspection schedule cycle be changed from the existing calendar year basis to a fiscal year basis. The Department's opinion is that consideration of such a change should be deferred until it has been demonstrated that annual noise testing of the bus fleet is established as a routine operation within the Tri-Met maintenance program. It appears that this is occurring, but to date there have been difficulties unrelated to the test cycle in scheduling annual testing of the buses. During the coming year Tri-Met should be able to demonstrate the adequacy of their program and then assess the value of any cycle changes.

2. Tri-Met proposes that "generally", non-compliant buses will be repaired within a 60-day period following initial noise testing. The Department is of the opinion that any bus found in excess of standards during the annual inspection should not be operated past the certification period, until compliance work is completed.
  
3. Tri-Met proposed modification to noise standards for each bus sub-fleet, based upon test data representative of all buses of each sub-fleet. As may be recalled, the current noise emission standards were based upon test results from a limited number of buses within the sub-fleets. The Department's noise program and vehicle inspection program staff have reviewed the noise emission data obtained by Tri-Met in testing their total fleet. The Department has concluded that modification to the existing standards are technically sound and justified, and subsequently recommends the following changes.

<u>Sub-Fleet</u>	<u>Population</u>	<u>Current Standard</u>	<u>Tri-Met Proposed</u>	<u>Change</u>	<u>Department Proposed</u>	<u>Change</u>
15	7	87 dBA	88 dBA	+1	88 dBA	+1
18	8	87	88	+1	88	+1
19	25	90	89	-1	89	-1
20	32	90	90	0	90	0
21	134	87	88	+1	88	+1
22	20	87	88	+1	88	+1
23	3	87	86	-1	86	-1
26	79	90	88	-2	87	-3
28	98	90	90	0	90	0
29	19	84	85	+1	85	+1
31	3	90	89	-1	89	-1
32	11	87	86	-1	86	-1
33	87	87	89	+2	88	+1
34	75	84	86	+2	85	+1
	<u>601</u>					

4. Tri-Met has requested eliminating the requirement for using a tripod to hold the noise meter during the test. The elimination of the tripod would simplify the testing process and would not adversely impact the quality of the test. The Department agrees that this requirement is not necessary for meeting the noise testing objectives.

Summation

1. Approximately 600 buses owned by Tri-Met have been tested for noise emissions. These buses have been certified as meeting the noise emission standards either initially or following necessary repairs.

2. Tri-Met has requested that the annual testing schedule be changed from the current calendar year cycle to a fiscal year cycle. The Department does not support such a change at this time.
3. Detail changes in the noise emission standards for 12 of the 14 bus sub-fleets are proposed. These changes result from a technical evaluation of the noise data obtained from testing of the total bus fleet. The environmental impact of these changes is considered negligible.
4. Tri-Met has requested eliminating the requirement for using a tripod to hold the noise meter during a noise test. The Department concurs that the use of a tripod is not necessary.

Director's Recommendation

Based on the summation, it is recommended that the Commission accept and execute the proposed amendments to the agreement. (Attachment 3)

  
Fred Hansen

Attachments: 1. Michael Kaye's Report to Tri-Met  
2. Tri-Met's Letter of Proposed Amendments  
3. Amendment to Intergovernmental Agreement

Ron Householder:1  
229-6200  
October 17, 1986

MICHAEL C. KAYE  
REGISTERED PROFESSIONAL ENGINEER

2166 N.W. FLANDERS STREET  
PORTLAND, OREGON 97210  
(503) 227-2888

RECEIVED  
JUN 10 1986

June 10, 1986.

[Noise Pollution Control]

To: Tri-Met  
From: Acoustic Consultant  
Subject: First Year of DEQ Bus Noise Test Program

#### BACKGROUND

The nation's first self-administered systematic noise emission inspection and regulation program for transit motorbuses began here in Portland in June 1985 when the Tri-County Metropolitan Transportation District and the Oregon Environmental Quality Commission approved Intergovernmental Agreement ORS 190.110. This engineering report covers the first year of this program's results.

During the six months immediately preceding this new program, Tri-Met developed a practical stationary transit bus test method together with standards for each subfleet based on a 10% sample. A bus is parked in a suitable open space, usually a busyard, and, simulating a maximum pullaway from a bus stop, the engine is caused to stall at full throttle against the resistance of the torque converter. The sound level, in terms of A-weighted decibels, is measured opposite the engine on the louder side of the bus 25 feet from the bus centerline. It is not advisable to test during significant rainfall or strong winds.

The noise rating is compared to the applicable standard. If the bus passes, it is certified for compliance. If it does not, it is inspected for defects, appropriately repaired, and retested. If no known fault remains and the bus exceeds its standard by no more than 2 dBA, an exception may be issued by the Department of Environmental Quality so that it may be operated.

Each bus is to be certified once a year. The annual cycle ends on December 31st and a test record is submitted by the following March 1st. The program may then be reviewed and adjustments made.

The standards for the various subfleets were based on samples taken in the first half of 1985. More compliance testing was done during the remainder of 1985, but most of the tests were done this year. Tri-Met was not finished by the end of 1985. DEQ allowed an extension.

THE TRI-MET FLEET

Tri-Met has title to 601 buses ranging in age between 4 and 23 years. This fleet, as listed in Table 1, is composed of 14 distinct subfleets, each having its own combination of make, model, year of production, engine, and other factors affecting its characteristic noise emission. Each bus is assigned a number. The fleet is deployed to three substations, each having its own garage, busyard, and shop: Center Street, Powell, and Merlo.

Some buses have been so badly damaged that there is no plan to repair them and return them to active status. Others are so decrepit that they have been retired with no intention of using them in operations again. Thirty are in this inactive pool at the present. No certificate is needed for these buses and most of them have not been noise tested.

TABLE 1.  
TRI-MET FLEET

<u>Subfleet</u>	<u>Series</u>	<u>Year &amp; Make</u>	<u>Engine</u>	<u>Population</u>	<u><sup>7</sup>Inactive</u>
15	500	1964 GMC <sup>1</sup>	DDAD <sup>5</sup> 6V-71	7	
18	500	1966 GMC	DDAD 6V-71	8	1
19	500, 600	1971 GMC	DDAD 3V-71	25	21
20	400, 600	1971 Flx <sup>2</sup>	DDAD 6V-71	32	
21	300, 400	1972 Flx	DDAD 8V-71	134	5
22	400	1973 Flx	DDAD 8V-71	20.	
23	100	1973 Flx	DDAD 8V-71	3	
26	100	1975 Flx	DDAD 8V-71	79	2
28	1000	1977 AMG <sup>3</sup>	DDAD 8V-71	98	
29	1100	1963 Flx	DDAD 6V-71	19	
31	1200	1970 GMC	DDAD 6V-71	3	
32	200	1980 GMC	DDAD 6V-71	11	
33	700	1981 C-I <sup>4</sup>	Cum <sup>6</sup> NHHTC-290	87	1
34	900	1982 GMC	DDAD 6V-92TA	75	
				<u>601</u>	<u>30</u>

<sup>1</sup> General Motors Corporation

<sup>2</sup> Flxible

<sup>3</sup> American General

<sup>4</sup> Crown-Ikarus

<sup>5</sup> Detroit Diesel-Allison Division

<sup>6</sup> Cummins Engine Company

<sup>7</sup> "To be scrapped" plus "Retired"

## STATUS

As of this date, with 2 exceptions, all 571 active buses have been processed to the point where they have either been qualified for certification or no fault causing excess noise emission can be found. The two still in process are:

<u>Bus</u>	<u>Subfleet</u>	<u>Domicile</u>	<u>Comments</u>
401	21	Merlo	Under repair in the body shop for many months. First test 6-10-86. Rating 88½ dBA, 1½ dBA in excess of standard. Being inspected. Any faults found will be corrected. Will be tested again in any case.
972	34	Powell	Still in the body shop for repair of extensive damage where it has been for many months. Never tested.

## RESULTS

Table 2 gives a recapitulation of the first year's test program. Altogether, 666 tests were performed on 577 buses. Some were given as many as 4 tests as noise reductions were sought.

### Failure Rates

1st test	1 out of 8
2nd test	1 out of 2
3rd test	3 out of 5
4th test	1 out of 5

Half the buses that failed their 2nd and 3rd tests were in subfleets 33 and 34. These are Tri-Met's newest buses. They are assigned the lower standards to meet. They are the only buses with turbochargers. The great majority failed by only ½ dBA. It is possible that their standards are based on an inadequate sample.

Table 3 shows how the number of buses in excess of standard has been reduced. If those in excess by only ½ dBA are not counted, the excessive buses have been reduced by nearly one-ninth.

Sixty-nine buses failed their first test. The worst case was a 20-year old GMC that was 6 dBA over its 87 dBA standard. It was found to have a badly ruptured exhaust pipe joint. When this was fixed, its rating reduced to 86½ dBA.

Figure 1 shows the distribution of the buses having no known defects. Each subfleet can be seen compared to its noise standard.

TABLE 2.  
 DEQ NOISE TEST PROGRAM RESULTS 1985-86  
 as of 6-10-86

Subfleet	Standard	1st Test	Failed	2nd Test	Failed	3rd Test	Failed	4th Test	Failed	<sup>1</sup> Total Tests	<sup>2</sup> Fixes	<sup>3</sup> Fail-No Faults	In Progress	Qual Certificate	Req Exception	Population
15	87	7	0	0	0	0	0	0	0	7	0	0	0	7	0	7
18	87	8	3	3	1	1	1	0	0	12	1	0	0	7	0	8
19	90	9	1	1	0	0	0	0	0	10	1	0	0	9	0	25
20	90	32	12	12	6	6	3	3	0	53	15	0	0	32	0	32
21	87	129	6	5	1	1	1	1	0	136	8	0	1	128	1	134
22	87	20	3	3	2	2	0	0	0	25	4	0	0	20	0	20
23	87	3	0	0	0	0	0	0	0	3	0	0	0	3	0	3
26	90	78	1	1	0	0	0	0	0	79	7	0	0	78	0	79
28	90	98	9	9	4	4	2	0	0	111	15	2	0	96	2	98
29	84	19	0	0	0	0	0	0	0	19	0	0	0	19	0	19
31	90	3	0	0	0	0	0	0	0	3	0	0	0	3	0	3
32	87	11	1	1	0	0	0	0	0	12	1	0	0	11	0	11
33	87	86	14	14	8	5	4	0	0	105	11	6	0	80	6	87
34	84	74	21	15	10	1	1	1	1	91	6	16	1	58	17	75
		577	71	64	32	20	12	5	1	666	69	24	2	551	26	601

<sup>1</sup> Counts only tests made in an effort to meet a noise standard.

<sup>2</sup> Counts fixes that made an improvement in noise rating.

<sup>3</sup> At least one inspection and one retest was made before declaring failure and no fault.

TABLE 3.  
 BUSES IN EXCESS OF STANDARD

<u>Excess</u>	<u>First Test</u>	<u>After Processing</u>
½ dBA	26	19
1 dBA	16	2
1½ dBA	10	2
2 dBA	8	
2½ dBA	1	
3 dBA	3	
3½ dBA	1	1
4 dBA	2	
4½ dBA		
5 dBA		
5½ dBA	1	
6 dBA	<u>1</u>	
	69	<u>24</u>

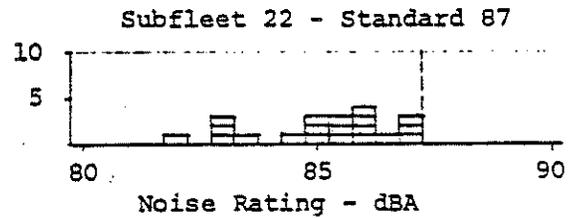
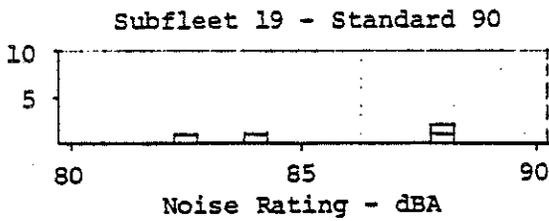
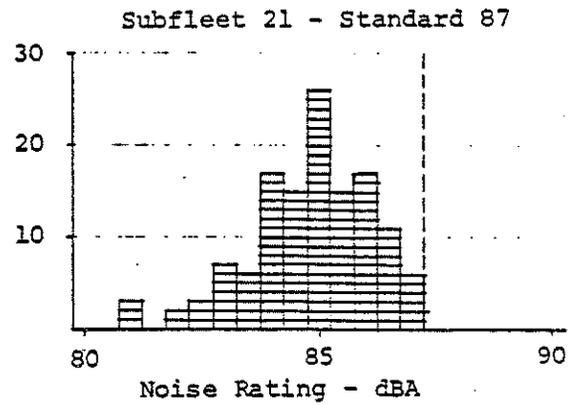
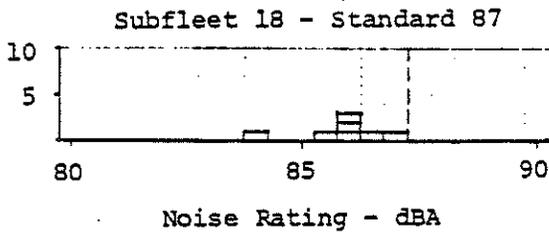
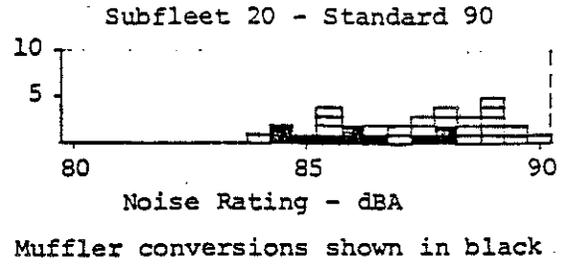
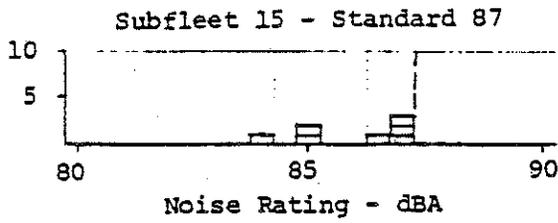


FIGURE 1.  
DISTRIBUTION OF NOISE RATINGS  
OF BUSES HAVING NO KNOWN DEFECT

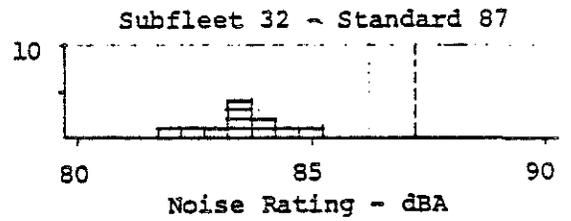
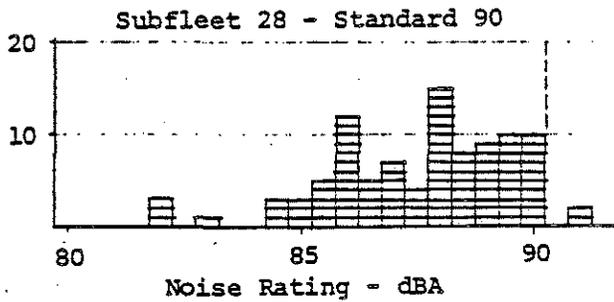
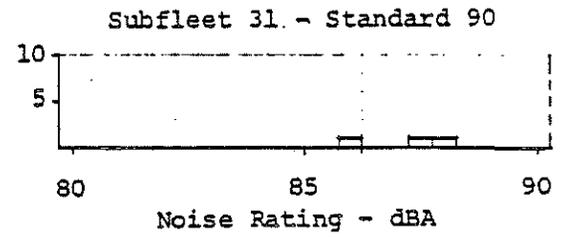
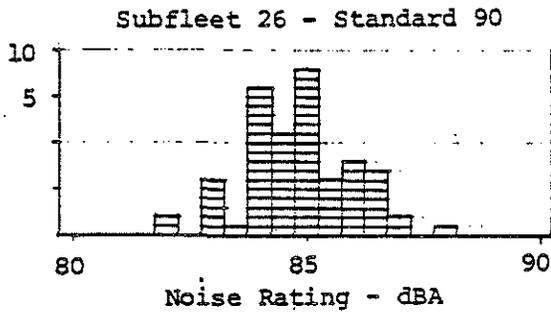
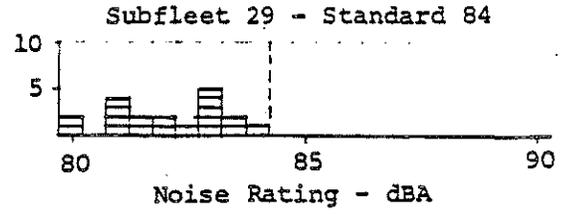
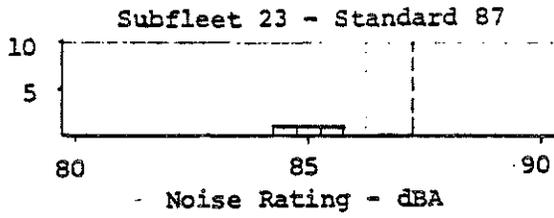


FIGURE 1.  
Continued

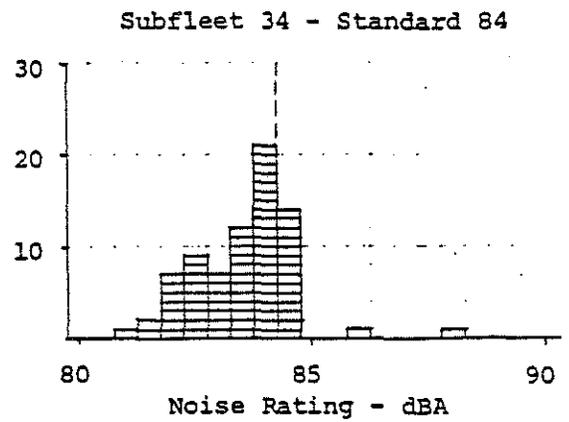
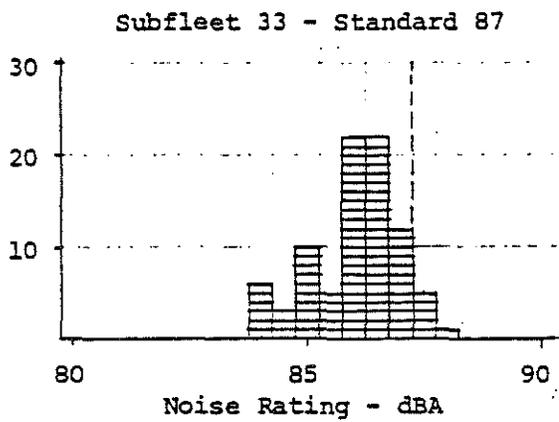


FIGURE 1.  
Continued

## FIXES

No one wants a bus noise control program that does nothing but collect numbers. The objective is to find noise-producing defects brought about by wear and tear or alteration...and get them fixed. As Tri-Met processed its way through this first year of program, it encountered many years of accumulated noise defects that had gone unattended because there was no systematic way to detect their presence. All but one case had to do with the engine exhaust system. The exception was when a plug was left out of the side of a freshly overhauled engine, allowing one cylinder to vent directly to the atmosphere.

### Treatments During the DEQ Program

The fixes that were applied by Tri-Met during the first year of program are categorized as follows:

<u>Treatments</u>	<u>Occurrences</u>
Replaced exhaust pipe section(s)	12
Converted exhaust muffler	10
Tightened exhaust pipe joint clamp(s)	9
Replaced exhaust muffler	9
Repaired exhaust pipe	8
Replaced exhaust pipe joint clamp(s)	7
Unknown correction	6
Replaced exhaust flex tube	3
Replaced exhaust manifold	1
Repaired exhaust thermal blanket	1
Replaced engine block plug	1
	<u>67</u>

### AMG Exhaust Flex Tube

First year statistics would have looked worse had it not been for Tri-Met's campaign to retrofit the nearly 100 buses of subfleet 28 with sections of flexible exhaust tubing. Already one of the inherently loudest subfleets with a 90 dBA standard, these 1977 AMG's were plagued with broken exhaust pipe joints. These faults added 5 dBA or more to the noise rating. The reason for the trouble was unusually stiff exhaust piping leading to the muffler, too stiff to accommodate the intermotion between the flexibly mounted engine and the underslung muffler. Tri-Met field tested flexible tube sections to relieve joint stress starting in the fall of 1984. By the time the DEQ noise test program reached subfleet 28, the retrofit campaign was nearly complete and the problem was under control. This is a case where Tri-Met had successfully made special efforts at noise control prior to the DEQ program and had done the bus manufacturer one better in the bargain.

### Muffler Conversion for Subfleet 20

The noisiest single group of buses was found to be the 32-member subfleet 20. These are 1971 Flxibles powered by Detroit Diesel 6V-71 engines. Their noise standard is 90 dBA. Subfleet 20 always did have a reputation for being loud; something of a paradox when it is considered that their 6-cylidar engines are a size smaller than the newer and more prevalent 8V-71 engines. Eleven from subfleet 20 failed their first test by an average of 2 dBA. The worst was 3½ dBA over standard.

One of the basic concepts of the DEQ noist test program is that a transit operator's job is to maintain the noise emmision integrity of buses in the as-manufactured condition. It is not up to Tri-Met to remanufacture their buses. But here was a group of 32 noisy buses, 15 years old and still in use, that always had been a problem.

The newest group of buses also having the 6V-71 engine was subfleet 32, composed of eleven 1980 GMC's. This group was generally known for their relatively low noise level. After DEQ noise program processing, subfleet 32's average rating was 83½ dBA. It was found that the 1980 GMC mufflers could be fitted to the 1971 Flxibles with relatively easy rework. One was tried. It succeeded. The bus noise rating dropped to 85 dBA. Tri-Met went on to do this muffler conversion on 9 other 1971 Flxibles that failed to meet their standard. The average reduction in their noise rating is over 6 dBA.

### CONCLUSIONS

The cooperative Tri-Met/DEQ bus noise test program is a success for its first year.

The test method has proved to be both practical to perform and effective in revealing noise-producing defects.

Almost 70 individual fixes were applied, improving 1 bus out of every 10.

The loudest buses in the loudest subfleet were all made an average of 6 dBA quieter by means of an exhaust muffler conversion, a step taken by Tri-Met beyond the scope of the program.

Substantially all known defects producing excess noise are in the engine exhaust system.

Some adjustments to improve the program's ground rules are indicated.

Respectfully submitted,

*Michael C. Kaye*  
Michael C. Kaye

TRI-COUNTY  
METROPOLITAN  
TRANSPORTATION  
DISTRICT  
OF OREGON



**TRI-MET**

4012 SE 17th AVENUE  
PORTLAND, OREGON 97202

ATTACHMENT 2

September 2, 1986

Mr. John Hector, Program  
Manager  
Noise Pollution Control  
P. O. Box 1760  
Portland, OR 97204

Re: Bus Noise Testing program

Dear John:

I have enclosed a copy of Mike Kaye's "Refinements to the DEQ Bus Noise Test Program." There are three major changes proposed:

1. A modification of the test year to run from June 1 - May 31, rather than the current test year of January 1 - December 31.
2. The inclusion of a grace period of 60 days from the date an inoperable bus becomes operable in which to be tested and certified.
3. The original standards were determined from a sample. Now that the entire population has been tested, a refinement of the standards is proposed. In some cases the proposed standards represent an increase and, in some, a decrease from the original.

In the future the testing will be carried out by a designated employee at each of the facilities. The Garage Managers will be responsible for seeing that the buses on their property are tested and meet certification standards on an annual basis. The Manager of Maintenance Systems will be responsible for administration of the program, maintaining the data, and insuring the actual certification of the buses.

I know we had originally discussed bringing these program refinements to the committee in September. I apologize for the delay in getting this information to you. I will call you this week to set up a meeting with you to discuss these changes and perhaps an attempt can be made to bring this to the committee in October for approval.

Mr. John Hector, Program  
Manager  
9/2/86

Page 2

Noise testing equipment is on order and I anticipate another round of noise testing to begin in late September or early October. A new database is being developed to maintain the records which should serve to ease the record-keeping difficulties of the past.

If you have any questions, please call me at 239-6410.

Thank you.

Sincerely,



Debra Hardmeyer  
Manager, Maintenance Programs

DH:jnb  
encl

cc: G. Brentano  
M. Grove  
D. Woods  
B. Miller  
T. Newhouse

**MICHAEL C. KAYE**  
REGISTERED PROFESSIONAL ENGINEER

2166 N.W. FLANDERS STREET  
PORTLAND, OREGON 97210  
(503) 227-2698

June 30, 1986.

To: Tri-Met  
From: Acoustic Consultant  
Subject: Refinements to the DEQ Bus Noise Test Program

**BACKGROUND**

On June 10, I reported the results of the first year of Tri-Met's compliance with the new DEQ Bus Noise Test Program, defined by Intergovernmental Agreement ORS 190.110, approved in June 1985. A review of the first year's experience together with appropriate amendments to the process is called for by the agreement. If I may be allowed, I shall take this opportunity to make my comments, article by article.

**A. ANNUAL CERTIFICATION**

My understanding is that the process begins with an "inspection year". During that year, each bus is to be inspected and issued a Certificate of Compliance. The certificate is good for the following year. For example, let us say that it is 1987 and we are considering Bus X. Bus X has a certificate that is good for 1987. It was issued in 1986 when it was last tested. Some time during 1987, Bus X must be tested again. When it is, a Certificate of Compliance will be issued, enabling Bus X to operate in 1988.

By the current agreement, this annual cycle ends on December 31st and the first inspection year was to be 1985. Now it is mid-1986 and just about all of Tri-Met's fleet has been inspected and given a 1986 Certificate of Compliance. The bulk of the testing was done in March, April, and May 1986. Tri-Met has only until December 31, 1986, to do it all over again.

I propose that the annual cycle be shifted from a calendar year to a year that ends on May 31st. My reasons are:

1. Tri-Met should have had at least a full year to go through the first annual cycle to begin with. The agreement was made in June 1985 and Tri-Met only had 6 months to get the job done. The first cycle of any new program of the sort is the hardest.
2. Bus noise testing has to be done outdoors and cannot be done in steady rain or strong winds. If the annual cycle ends on December 31st, there is minimal opportunity to finish up the inevitable stragglers.

3. It is most efficient to test the fleet during the good weather of July, August, and September. Get the job done and not have it linger on all year around is management's inclination. This could happen whether the annual cycle were to end on December 31st or May 31st, but making the deadline May 31st gives more tolerable weather opportunities to deal with stragglers and problem buses at the end that need more time than do buses without faults.

The current agreement says each bus shall be certified annually. Two questions arise: What if a bus is not operational and cannot be tested? What happens if a bus does not have a certificate?

I found that some buses could not be tested because they were extensively damaged by collision and were in the body shop where they had been languishing for many months. I also found that other buses were so decrepit that they had been retired for the foreseeable future pending disposal or rehabilitation.

I propose that these problems are solved by stating, in effect, that, in order to operate on public roadways, a bus must be certified annually. That way, if Tri-Met does not want to operate a certain bus, the time required to test and certify it is not wasted.

I further propose that if a bus emerges from a status of being inoperable into a year where it does not have a Certificate of Compliance, it may have a grace period of 60 days in which to become certified.

#### B. NOISE EMISSION STANDARDS

In the original agreement, Tri-Met's subfleets are sorted into three noise standards: 84 dBA, 87 dBA, and 90 dBA. This was done based on 10% sampling. With hindsight, I can now see that a 10% sample is insufficient. Some subfleets have individuals with nothing wrong with them that cannot pass their test, while other subfleets might have individuals that can pass their test and still have fixable faults.

Having a single standard has merit from the standpoints of simplicity and fairness, but we have demonstrated that not all buses are equally noisy as they came from the factory. There is a wide range of characteristic noisiness. A single standard would have to be set liberally enough to avoid outlawing the loudest buses, allowing the naturally quieter buses with fixable defects to go undetected and uncorrected.

The three categories into which the subfleets are sorted were arbitrarily selected to be 3 dBA apart. The rationale was that 3 dBA is a frequently used dividing line in acoustic engineering because it is both the threshold of difference perception and is indicative of a doubling of sound energy.

I propose that each subfleet be assigned a standard based on its own typical noise ratings without regard to the noise ratings of any other subfleet. Simplicity is lost once the idea of a single standard is discarded. One cannot easily remember the individual standard for over a dozen subfleets. If one must look up the standard for a given bus anyway, it is no less complicated to have 3 standards instead of 4 or more standards.

Within any given subfleet, we have found that it is natural to have a range of bus noise ratings. Usually, there is a distinct high side of the range.

I propose that the general method for assigning standards be first to determine the high side of subfleet's ratings (rounding up to the next higher whole number if the high side ends in  $\frac{1}{2}$  dBA) and then to add 1 dBA to allow for unavoidable variations from day to day, site to site, and technician to technician. Following this guide results in the below list of standards. I made exceptions where I did not feel it was right to let one or two exceptionally loud buses determine the high side of a large subfleet.

<u>Subfleet</u>	<u>Current Standard</u>	<u>Proposed Standard</u>	<u>Change</u>
15	87 dBA	88 dBA	+1
18	87	88	+1
19	90	89	-1
20	90	*90	0
21	87	88	+1
22	87	88	+1
23	87	86	-1
26	90	88	-2
29	84	85	+1
31	90	89	-1
32	87	86	-1
33	87	89	+2
34	84	86	+2

\*Rather than raise the standard for subfleet 20 to 91 dBA as my guide would have me do, I make an exception because it has been demonstrated that a muffler conversion for these particular buses can bring their ratings down to at least 88 dBA. However, they are 15 years old and it is not worth the cost to so convert up to 8 buses just to gain 1 or 2 dBA. Leave the standard at 90 dBA and let the muffler conversion be the cure if some creep over 90 dBA as time goes by.

From time to time Tri-Met will be obtaining new subfleets. There is no provision in the agreement for assigning a standard for newly acquired buses. I believe a 10% sample is insufficient for basing a standard. On the other hand, testing all buses in a large subfleet for this purpose could cause an unnecessary delay in their deployment.

I propose that the standard for any new subfleet be set within 60 days of acquisition based on a 20% sample following the high side plus 1 dBA guide.

### C. TESTING PROCEDURE

Generally, the current test procedure has been very practical and effective.

C.1.e I believe it is not necessary for the microphone to be mounted on a tripod. It may be hand held. It is important to keep the procedure quick and easy. Doing without the tripod would speed things up, especially for retesting a single bus after it has been fixed. If anything goes wrong, it would be erroneously high ratings due to body echoes. Tri-Met is always at liberty to use a tripod if they suspect a rating is too high for this reason.

#### E. RECORDS

Consistent with my proposal to shift the end of the annual cycle from December 31st to May 31st, I propose that the deadline for supplying noise testing records for the previous inspection year to DEQ be shifted from March 1st to August 1st.

#### G. PREVENTATIVE MAINTENANCE

Basically all defects that caused extra noise were found to be in the exhaust system. There is no practice that prevents exhaust leaks. I propose this article be stricken because it is unnecessary. Exhaust leaks generally take time to develop into noise problems. I believe the annual DEQ noise inspection program is all that is necessary besides responding to specific cases of complaint.

#### H. EXCEPTIONS

As it stands, if Tri-Met has a bus that is up to 2 dBA over its standard and Tri-Met has tried and cannot find anything wrong with it, Tri-Met may apply to DEQ for an exception. Presumably, if the overage is more than 2 dBA, DEQ does not have the authority to grant the exception and Tri-Met must apply to the Environmental Quality Commission, a time-taking recourse that should be reserved for exceptionally important issues.

I propose that DEQ's powers be broadened in this area by giving DEQ the authority to grant all exceptions regardless of overage. Tri-Met can always apply to the EQC if they are not satisfied with DEQ's action. The EQC can always require DEQ to report and justify any of its granted exceptions. It would be wasteful to sideline an operational bus while awaiting the outcome of a bureaucratic process which is designed for planning and policy making.

#### I. REVIEW OF AGREEMENT

The current agreement provides for a review prior to July 1, 1986, for the purpose of amendment as appropriate. Tri-Met and the EQC are pioneering new ground in this program. There are no precedents and it is a complicated task. As new buses enter the picture, there will be unforeseeable refinements indicated. Review of the agreement should not be restricted to just one time.

I propose that the agreement be reviewed, if either party wishes, at the first applicable EQC meeting after Tri-Met's annual report is received.

Respectfully submitted,

*Michael E. Kaye*

## AMENDMENT TO INTERGOVERNMENTAL AGREEMENT

1. This agreement is between the Environmental Quality Commission, hereafter called the EQC, and Tri-County Metropolitan Transportation District, hereafter called Tri-Met.
2. The agreement entered into on June 7, 1985 between the EQC and Tri-Met shall be amended as follows:

Paragraph B, Noise Emission Standards, is amended to read:

The maximum allowable noise emission standards for Tri-Met buses shall be as follows:

<u>Sub-Fleet Number</u>	<u>Population</u>	<u>Allowable Limit, dBA</u>
15	7	88
18	8	88
19	25	89
20	32	90
21	134	88
22	20	88
23	3	86
26	79	87
28	98	90
29	19	85
31	3	89
32	11	86
33	87	88
34	75	85
	Total	601

Paragraph C.1.e. is amended to read:

The microphone shall be positioned 25 feet  $\pm$  1 foot from the centerline of the bus, and 5 feet  $\pm$  1 foot above the ground opposite the louder side of the bus.

3. In performing the above, it is understood and agreed that all other terms and conditions of the original contract are still in effect.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_.

ENVIRONMENTAL QUALITY COMMISSION  
OF THE STATE OF OREGON

By \_\_\_\_\_

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

TRI-COUNTY METROPOLITAN TRANSPORTATION  
DISTRICT, A MUNICIPAL CORPORATION OF  
THE STATE OF OREGON

By \_\_\_\_\_

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date